

ABSTRACT REPRODUCTION FORM

IMPACT OF PROPOFOL SHORTAGE ON PHARMACY COST IN ADULT MECHANICALLY VENTILATED PATIENTS.
Chelsea Frantz, Stephanie Luke, Margaret Effinger
Sacred Heart Hospital - Pensacola, FL

Purpose/Background: The pharmacy department is currently in the process of developing a standardized sedation protocol for adult mechanically ventilated patients. Prior to the propofol shortage in 2009, propofol was the sedative of choice in most mechanically ventilated ICU patients at Sacred Heart Hospital. Prescribing practices have since changed in response to the limited availability. This change is expected to be permanent, and the use of currently available, alternative sedatives will most likely be required long term.

Methodology: Data was retrospectively collected on the type and quantity of sedatives used in a sample of adult mechanically ventilated patients from 7/1/09 to 12/31/10. This data was compared graphically alongside pharmacy cost for propofol, fentanyl, midazolam, and dexmedetomidine. Data was stratified monthly, pre- and post-shortage, and by drug to determine what impact, if any, the recent drug shortages have had on cost to the pharmacy department.

Results:

Conclusions:

Presentation Objective: Changes in drug utilization due to drug shortages can potentially impose a financial impact on hospital pharmacies. **Self-Assessment:** After the propofol shortage that began in 2009, what was the trend in the hospital's pharmacy cost for sedatives?

9:00

Room A

CCM

ABSTRACT REPRODUCTION FORM

IMPACT OF AN EMERGENCY ROOM PHARMACIST IN A VETERANS AFFAIRS HOSPITAL
Erenie Hanna, Eric Gomez, Lisa Joseph
Miami VA Healthcare System - Miami, FL

Purpose/Background: On average America's emergency rooms treat 110 million patients per year. Due to the number of patients treated and the stressful environment, emergency rooms have the highest rate of medication errors in hospitals. It is estimated that there are 550,000 potential events that occur yearly and of those 70% are preventable. In an effort to decrease the number of medication errors The Joint Commission requires a review of all medication orders in hospitals unless a licensed practitioner controls the ordering, preparation, and administration of a medication. Currently at the Miami VA Healthcare System various pharmacists are assigned to review ER orders, but often the order does not get reviewed until after the medication has been administered. This process allows for a greater possibility of medication errors and minimizes possible pharmacist interventions.

Methodology: A pharmacist will be assigned to the emergency room for 4 weeks and during this time period will prospectively document all medication interventions. After completion of the four week period all interventions will be evaluated. Finally, a survey will be conducted with the emergency room staff to assess their opinion on the need for the emergency room pharmacist and the benefits they experienced while one was present.

Results:

Conclusions:

Presentation Objective: To assess the impact of a clinical pharmacist in the Emergency Room Department of a Veterans Affairs Hospital **Self-Assessment:** What was the impact of an emergency room pharmacist?

9:00

Room B

CCM

ABSTRACT REPRODUCTION FORM

ASSESSMENT OF ZOSYN® UTILIZATION AND EVALUATION OF THE POTENTIAL FOR A TARGETED ANTIBIOTIC STEWARDSHIP PROGRAM
Ashley Scott, Jennafer Pennell, Chris Doll
Medical Center Of Central Georgia PGY1 - Macon, GA

Purpose/Background: Increased antimicrobial resistance has led to the initiation of antibiotic stewardship programs. The Medical Center of Central Georgia (MCCG) currently has an informal stewardship program where pharmacists may monitor and adjust antimicrobial therapy at their own discretion or upon physician request. Zosyn® is a formulary broad spectrum antibiotic and one of MCCG's top expenditures. The purpose of this study is to evaluate the usage pattern of Zosyn® in order to assess the need, feasibility, and value of Zosyn-targeted antimicrobial stewardship. Four aspects of Zosyn® therapy will be evaluated: appropriate dosing, culture and sensitivity results, costs, and potential pharmacy interventions.

Methodology: A retrospective chart review was conducted using an electronic database for patients receiving Zosyn®. Drug indication, renal function, cultures, and length of therapy were evaluated. Data was compiled and analyzed using descriptive statistics.

Results: Preliminary results show out of 222 patients, 40.1% (89/222) were initiated using an inappropriate dose. Ninety two percent of patients (204/222) had specimens cultured. Thirty percent (55/204) were tested for Zosyn® susceptibility. Based on laboratory results, 64% (142/222) of patients received Zosyn® for an appropriate length of time.

Conclusions: Initial review of the data suggests that there may be an opportunity for pharmacists to provide effective stewardship of Zosyn® therapy.

Presentation Objective: Demonstrate a methodology for evaluating the potential of pharmacists in guiding and managing cost-effective drug therapy. **Self-Assessment:** List some indicators of inappropriate Zosyn® usage.

9:00

Room C

ID

ABSTRACT REPRODUCTION FORM

HOSPITAL MORTALITY RATES USING ALTERNATIVE MEROPENEM DOSING
Michael Wright, Jan Pack, Steve Mok, Jay Varkey
Emory University Healthcare - Atlanta, GA

Purpose/Background: On January 13, 2010, Emory Healthcare started an auto-conversion program from traditional dosing of meropenem (1 gram every 8 hours) to an alternative dosing regimen (500 mg every 6 hours). The purpose of this study is to compare mortality in patients who received alternative meropenem dosing to a cohort of patients who received traditional meropenem dosing.

Methodology: This multi-center, retrospective study includes adult patients hospitalized January 1, 2009 - October 31, 2010 who received meropenem for a minimum of 3 days. Patients with cystic fibrosis, suspected or confirmed meningitis or who received inappropriate meropenem dosing were excluded. The primary outcome measures examined were in-hospital mortality and 30-day mortality.

Results: A total of 1,167 patients (633 in the traditional dosing group and 534 in the alternative dosing group) met study criteria and were included in the analysis. In-hospital mortality in the traditional dosing and alternative dosing cohorts were 17.9% and 19.1% respectively (P = 0.583). 30-day mortality in the traditional dosing and alternative dosing cohorts were 30.0% and 30.0% respectively (P = 0.984).

Conclusions: After adopting alternative meropenem dosing, we observed no statistically significant changes in in-hospital mortality and 30-day mortality. This study suggests that alternative meropenem dosing is as safe and efficacious as traditional meropenem dosing.

Presentation Objective: To demonstrate mortality rates using an alternative meropenem dosing strategy based on pharmacokinetic and pharmacodynamic principles. **Self-Assessment:** What pharmacodynamic target has been correlated with carbapenem efficacy?

9:00

Room D

ID

ABSTRACT REPRODUCTION FORM

CLONIDINE THERAPY IN PEDIATRIC PATIENTS TO PREVENT WITHDRAWAL SYMPTOMS: A DOSE-FINDING STUDY
Whitney Moore, Vickie Malloy, Pradip Kamat
Children's Healthcare Of Atlanta - Atlanta, GA

Purpose/Background: Avoiding withdrawal symptoms from long-term sedation of narcotics or benzodiazepines has always been a concern in the pediatric population. Currently there is limited data available on what therapies should be used to prevent withdrawal symptoms. There is no evidence based literature regarding the use of clonidine specifically for withdrawal symptoms due to long-term sedation. This study will address the need for a starting dose of clonidine and a protocol regarding the prevention of withdrawal symptoms in pediatric patients on long-term sedation.

Methodology: A retrospective review was conducted on patients admitted to the pediatric intensive care unit at Children's Healthcare of Atlanta Egleston and Scottish Rite campus between June 1, 2008 and November 30, 2010. Patients were initially selected by clonidine use during the specified time period and included if the use was indicated to prevent or manage withdrawal symptoms from long-term sedation. Patients were excluded if they were on clonidine prior to admission, had a past medical history of seizure, attention deficit hyperactivity disorder, and/or primary hypertension. The data was examined on the clonidine starting dose, if the dose was effective in preventing withdrawal symptoms, and if any, what withdrawal symptoms occurred.

Results:

Conclusions:

Presentation Objective: Identify a clonidine starting dose that is effective at preventing withdrawal symptoms related to long-term sedation. **Self-Assessment:** When should clonidine be added for withdrawal symptoms and at what starting dose?
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9:00

Room G

PED

ABSTRACT REPRODUCTION FORM

DETERMINING PNEUMOCOCCAL VACCINATION RATES AFTER A PHARMACIST CONDUCTED MEDICATION THERAPY REVIEW
Abbey Jenkins, Nate Hemberg, Zack Hall, Stefanie Ferreri, Macary Marciniak
University Of North Carolina Hospitals PGY1 Community Pharm. - Chapel Hill, NC

Purpose/Background: Determine pneumococcal vaccination rates in patients who received a pharmacist conducted medication therapy review (MTR).

Methodology: Prospective, multi site study conducted at two rural community pharmacies and one private physician practice. A pharmacist conducted MTRs for patients at the study locations. The study was from July 1, 2010 through February 4, 2011. During the MTR, patients reported their vaccination history. Patients were excluded if previously vaccinated. For patients who were unsure or have not received the pneumococcal vaccine the pharmacist followed up with the patient's primary care provider (PCP) via fax to clarify status. The fax asked the PCP if the patient received the vaccine. If they have not, the fax asked if the vaccine should be administered at the PCP office or the pharmacy. Vaccination rates after the pharmacist conducted MTR were compared to national and state pneumococcal vaccination rates. Chi-square analysis was performed.

Results: 104 MTRs were conducted. Of these, 27 patients were either uncertain of their pneumococcal vaccination status or have not been vaccinated. After follow-up with the patient's PCP, 21 patients received vaccination at the PCPs office or pharmacy.

Conclusions: After the MTR, pneumococcal vaccination rates in this limited patient population were similar to the 2009 local rate (consisting of three counties). However of the 27 patients who needed vaccination, 21 received vaccination after the MTR.

Presentation Objective: Compare pneumococcal vaccination rates before and after a MTR to the national, state, and local rates. **Self-Assessment:** How can pharmacists improve pneumococcal vaccination rates?

9:00

Room H

CP

ABSTRACT REPRODUCTION FORM

EVALUATION OF AN INPATIENT LONG-ACTING ANTIPSYCHOTIC TREATMENT ALGORITHM
Margaret Pate, Rebecca Jones, Aaron Jones, Rayford Thweatt, Cherry Jackson
University Of Alabama Hospital - Birmingham - Birmingham, AL

Purpose/Background: To assess a recently revised treatment algorithm involving long-acting antipsychotic injections at UAB Hospital.

Methodology: Patients initiated on a long-acting antipsychotic agent from October 20, 2010 to April 5, 2011 will be included in this review. The primary objectives were to assess prescriber compliance with the guidelines and assess the overall utilization and expenditures for the long-acting antipsychotic injectables. Secondary objectives were to assess the safety and efficacy of haloperidol decanoate and paliperidone palmitate when initiated among inpatients and assess outpatient outcomes among this patient population following hospital discharge.

Results: Forty-one patients, from October 20, 2010 to February 1, 2011, were initiated on a long-acting antipsychotic injection. Of those 41 patients, 17 were initiated on haloperidol decanoate, 10 on paliperidone palmitate and 15 on risperidone long-acting injection. Only fifteen patients met the criteria consistent with guideline recommendations. Three patients experienced adverse effects, 2 on paliperidone palmitate and 1 on haloperidol decanoate and 31 patients showed a response to therapy.

Conclusions: The majority (75.6%) of patients initiated on any of the three agents monitored showed improvement in psychotic symptoms. The usage of paliperidone palmitate has increased, as well as a slight increase in the usage of haloperidol decanoate, while risperidone long-acting injection usage decreased. Also, overall expenditure for long-acting antipsychotics decreased compared to previous data.

Presentation Objective: Did implementing an algorithm for initiation of long-acting antipsychotic agents affect patient outcomes? **Self-Assessment:** Can schizophrenic patients be managed on long-acting antipsychotics in a more effective manner?

9:00

Room I

PSY

ABSTRACT REPRODUCTION FORM

RETROSPECTIVE ANALYSIS ON THE USE OF DARBEPOETIN ALFA IN PATIENTS RECEIVING CHEMOTHERAPY OR UNDERGOING DIALYSIS
Sade Zakari; Renee Greaves
Broward General Medical Center/Nova Southeastern Univ. - Fort Lauderdale, FL

Purpose/Background: Anemia is a prevalent complication among patients with malignancy and chronic kidney disease (CKD). Erythropoiesis-stimulating agents (ESAs) are approved for the treatment of anemia associated with CKD and cancer. There is compelling evidence of increased morbidity and mortality associated with targeting and maintaining high hemoglobin levels when ESAs are used. Current guidelines recommend hemoglobin values no greater than 10 g/dL, and 12g/dL for anemia induced by chemotherapy and CKD, respectively.

Methodology: A retrospective chart review was conducted from October 2008 to December 2010 to evaluate the utilization of darbopoetin alfa in patients with an indication of chemotherapy induced anemia or anemia of chronic kidney disease undergoing dialysis. Inclusion criteria were patients receiving at least one dose of darbopoetin alfa. Laboratory parameters and vital signs monitored during hospitalization include: Hgb, Hct, RBC, platelets, CrCl, and blood pressure. In addition, infusions of PRBC and history of myocardial infarction were recorded. The primary outcome of this study is to evaluate the percentage of patients treated with darbopoetin alfa and diagnosed with either chemotherapy induced anemia or undergoing dialysis with Hgb >10 g/dL and, Hgb >12 g/dL respectively. Secondary outcome measures are to determine if pharmacist's assessments of laboratory parameters are adequate in preventing above target Hgb levels.

Results:

Conclusions:

Presentation Objective: Evaluate the pharmacist role in the utilization of darbopoetin alfa in anemia associated with chemotherapy or CKD. **Self-Assessment:** According to current guidelines, what are the recommended Hgb targets for patients receiving treatment with ESAs for chemotherapy induced anemia or anemia of CKD?

9:00

Room J

IM

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF COMPUTERIZED ORDER TEMPLATES FOR COMMONLY DIAGNOSED SEXUALLY TRANSMITTED DISEASES

Lasonya Ford, Kathryn Desilva
Atlanta Veterans Affairs Medical Center - Atlanta, GA

Purpose/Background: According to the Center for Disease Control and Prevention (CDC), Sexually Transmitted Diseases (STDs) remain a public health challenge in the United States. Therefore, early diagnosis and treatment is essential to reduce the further spread of disease and to prevent undesired health consequences. Implementing a streamlined process for providers to initiate therapeutic interventions in an efficient manner would lessen the time to treatment for patients newly diagnosed.

The purpose of this project is to develop and implement computerized order templates for commonly diagnosed STDs seen in primary care clinics.

Methodology: The commonly diagnosed and treated STDs seen in primary care clinics at the Atlanta VAMC will be identified by consulting with the Infectious Disease staff. Upon identification of the most common STDs, a streamlined process will be originated to identify appropriate therapeutic interventions based on current guidelines and national formulary. The order templates will be uploaded to the VA's Computerized Patient Record System (CPRS) via collaboration with Information Technology personnel. All primary care providers will receive in-service training to raise awareness of the new order templates. Emory Institutional Review Board and Atlanta Research and Development Committee approval will be obtained if deemed necessary.

Results: The commonly diagnosed STDs identified were Gonorrhea, Chlamydia and Syphilis. The templates are being built and will be uploaded into CPRS.

Conclusions:

Presentation Objective: Identify the commonly diagnosed STDs at the AVAMC. **Self-Assessment:** What are the commonly diagnosed STDs at the Atlanta VAMC? Gonorrhea, Chlamydia and Syphilis

9:00

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

GENERIC IMMUNOSUPPRESSANTS: PATIENT PERCEPTIONS MIRROR THE AMBIGUITY OF PROVIDER PERCEPTIONS

Amanda Hulbert, Nicole Pilch, And David Taber
Medical University Of South Carolina - Charleston, SC

Purpose/Background: The recent release of generic immunosuppressants has sparked controversy among transplant providers. However, no evaluation of patient perception has been conducted. The aim of this study was to evaluate transplant patients' perception of the issue of brand versus generic immunosuppressants and their willingness to convert based on socioeconomic variables and baseline demographics.

Methodology: Key informant interviews were conducted to inform the development of a survey instrument. This anonymous survey was distributed to solid organ transplant recipients from October - December 2010. Patients less than 18 years of age at the time of transplant were excluded from this analysis.

Results: A total of 255 patients participated in the survey and were included in this analysis; 81 (32%) patients had been converted to a generic immunosuppressant. The transplant center had knowledge of the generic conversion in only 31% of patients. Side effects after conversion were reported in 41% of patients. Post-conversion dosage adjustments and increased lab monitoring were reported in 14% and 19% of patients, respectively.

Conclusions: The use of generic immunosuppressants is common amongst transplant recipients, oftentimes without the knowledge of transplant centers. Socioeconomic status and patient education did not impact willingness to convert.

Presentation Objective: To evaluate transplant patients' perception of the issue of brand versus generic immunosuppressants and their willingness to convert based on socioeconomic variables and baseline demographics. **Self-Assessment:** How can a clinical pharmacist be involved in patient education of factors surrounding generic conversion of immunosuppressants and improving communication of patients' generic conversion with the transplant team?

9:00

OLY 2

TRP

ABSTRACT REPRODUCTION FORM

IMPROVING CONTINUITY OF CARE: IMPLEMENTING A PHARMACIST-MANAGED MEDICATION RECONCILIATION CLINIC

Kimberly M. Spilman, Carmen Hernandez
Fort Myers VA Outpatient Clinic - Fort Myers, FL

Purpose/Background: Medication reconciliation is a continuing problem in the healthcare community for patients both inside and outside of the Veterans Affairs (VA) healthcare system. The lack of communication between hospitals and outpatient facilities following hospitalization allows for numerous medication errors to be made including drug duplication, incorrect dose, and incorrect medication use. The purpose of this project is to improve the medication reconciliation process following hospital discharge by implementing a pharmacist-managed medication reconciliation clinic.

Methodology: Eligible participants included Fort Myers VA Outpatient Clinic patients who were recently discharged from the hospital. Patients were scheduled for a 30-minute face-to-face clinic visit to review current medications and hospital discharge summaries. A summary of current medications including which medications were new, which medications were discontinued, and which medications had dose or frequency changes was then provided to the patient's primary care provider (PCP) prior to their PCP appointment. Any discrepancies between the discharge summary and outpatient medications were noted. Patients were also asked to sign consent forms at release of information so that hospital records could be obtained.

Results:

Conclusions:

Presentation Objective: Describe potential medication errors prevented by having a pharmacist-managed medication reconciliation clinic for patients recently discharged from the hospital. **Self-Assessment:** How can pharmacists help reduce medication errors following hospital discharge? List the types of medication errors that frequently occur following hospital discharge that could be prevented with the implementation of a medication reconciliation clinic.

9:00

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

EVALUATION OF CHRONIC AZITHROMYCIN USE IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Leslie Dawson And Bridget Roop
Birmingham VA Medical Center - Birmingham, AL

Purpose/Background: Chronic obstructive pulmonary disease (COPD) is a major cause of hospital admissions, mortality, primary care visits, and impaired health status, and it is a leading cause of death. COPD is characterized by chronic inflammation which leads to lung injury and decreased lung function. Evidence has shown that macrolide antibiotics have a variety of immunomodulatory and anti-inflammatory actions which may reduce COPD exacerbations. The use of chronic daily azithromycin for COPD has increased at the Birmingham Veterans Affairs Medical Center; however, current guidelines recommend against the routine use of continuous antibiotics in COPD patients.

Methodology: A retrospective chart review of electronic medical records will be conducted of patients with moderate to severe COPD who have received chronic daily azithromycin therapy for at least six months. The rate of exacerbations and hospitalizations in the six months prior to initiation of chronic azithromycin and the six months following the initiation of treatment will be compared.

Results:

Conclusions:

Presentation Objective: To assess the effectiveness of chronic daily azithromycin therapy in preventing COPD exacerbations and hospitalizations in patients with moderate to severe COPD. **Self-Assessment:** Does the use of chronic daily azithromycin therapy decrease the rate of COPD exacerbations and hospitalizations in patients with moderate to severe COPD at the Birmingham Veterans Affairs Medical Center?

9:00

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

COMPARISON OF THE SAFETY AND EFFICACY OF GLUCOSE CONTROL ALGORITHMS IN CRITICALLY ILL PATIENTS

Jeanne Miller, Lori Fiallo, Cindy Budzinski, Rachel Samples
Wolfson Children's Hospital - Baptist Health - Jacksonville, FL

Purpose/Background: To compare the safety and efficacy of two glucose control algorithms in critically ill patients.

Methodology: A retrospective chart review was conducted on two groups of critically ill patients receiving an intravenous infusion of insulin. One group of patient s blood glucose was controlled at 120 - 180 mg/dL by the conventional method whereas the second group of patient s blood glucose was controlled at 90 - 140 mg/dL by the continuous variable rate intravenous insulin infusion or the Atlanta protocol. Comparison of hypoglycemic rates (<70 mg/dL) and severe hypoglycemic rates (<40 mg/dL) were used to evaluate the safety of the protocols. Efficacy was determined by comparing the average time in blood glucose goal, average time to target blood glucose goal and average length of stay in the critical care setting between the protocols.

Results: Twenty three patients were included in the Atlanta protocol group. Thirty four percent of patients experienced a hypoglycemic event. The average time to blood glucose goal, the average percent time in blood glucose goal and the average length of time in the ICU were 4.8 hours, 57% and 11 days respectively.

Conclusions:

Presentation Objective: Compare and contrast the results of recent landmark trials regarding appropriate blood glucose range in critically ill patients. **Self-Assessment:** How do the results of the Van den Bergh trial differ from the NICE-SUGAR study?

9:20

Room A

CCM

ABSTRACT REPRODUCTION FORM

ADMINISTRATION OF SHORT COURSE DEXMEDETOMIDINE TO PROTOCOLIZED VENTILATOR WEANING IN THE INTENSIVE CARE UNIT

Tara N. Kelley, Shaun Rowe, James C. McMillen
University Of Tennessee Medical Center - Knoxville - Knoxville, TN

Purpose/Background: Sedatives and opioid analgesics used to prevent agitation and patient-ventilator dyssynchrony in mechanically ventilated (MV) patients must be reduced to facilitate ventilator weaning. Reducing these medications may increase agitation, thus impeding the weaning process. We hypothesized that decreased need for sedatives and opioid analgesics in patients receiving a short course of dexmedetomidine would lead to shorter durations of MV.

Methodology: A retrospective cohort analysis was conducted to compare patients that received 24 hours of dexmedetomidine to facilitate MV weaning to a matched cohort of patients that did not. Adult patients who were mechanically ventilated between September 1, 2009 and August 30, 2010 were reviewed for eligibility utilizing the following inclusion criteria: 18 to 75 years old, maintained on MV for a minimum of 72 hours, and having failed at least one attempt at weaning. Groups were matched by age, sex, injury severity score, APACHE II score, and Glasgow Coma Scale on admission. Data collected for patients includes amount of sedatives/opioids used, time to extubation and ventilator free days from initiation of MV, and need for reintubation. The primary outcome is number of ventilator free days in a 28 day period from MV initiation. The secondary outcomes include time to extubation from MV initiation, need for reintubation, and amount of sedatives/opioids used.

Results:

Conclusions:

Presentation Objective: Assess the benefit of the addition of short course dexmedetomidine to protocolized ventilator weaning in the intensive care unit. **Self-Assessment:** By what mechanisms is dexmedetomidine postulated to facilitate ventilator weaning?

9:20

Room B

CCM

ABSTRACT REPRODUCTION FORM

PILOT OF HIV/AIDS MEDICATION MANAGEMENT AND INVESTIGATING THE LIKELIHOOD OF ELIMINATING ERRORS (PHAMMILEE)

Lauren D. Tesh, Sandy J. Estrada, Amanda Zelek, Douglas Brust
Lee Memorial Health System - Fort Myers, FL

Purpose/Background: To evaluate the impact of a pharmacy driven medication reconciliation process for HIV/AIDS patients who are admitted to Lee Memorial Hospital on highly active antiretroviral therapy (HAART).

Methodology: Eligible participants were those who were admitted to LMH on HAART therapy that were > 18 years old, not pregnant, with a length of stay > 48 hours. A clinical pharmacist or resident trained in HIV/AIDS performed medication reconciliation within 48 hours of admission during a 16 week period. Patients were identified by notification from other healthcare providers or via an antimicrobial report that prints every morning. Each patient was asked a series of social and demographic questions, received counseling, and a dated wallet card that contained their allergies and current medication regimen. If the pharmacist identified an error or nonconventional regimen she would contact the prescriber to procure medical records, clarify or recommend changes in therapy as deemed appropriate. A retrospective medical chart review was also conducted that encompassed the 16 weeks prior to the initiation of the prospective portion of the study to determine if there was a difference in outcomes when a pharmacist was proactively involved.

Results:

Conclusions:

Presentation Objective: To describe and classify the types of medication errors occurring in patients admitted to the hospital on HAART. **Self-Assessment:** How long does it take for a medication error to be resolved with and without pharmacist involvement in HIV/AIDS patients?

9:20

Room C

ID

ABSTRACT REPRODUCTION FORM

IMPACT OF PHARMACIST REVIEW OF ANTIRETROVIRAL REGIMENS IN PREVENTING DRUG-RELATED PROBLEMS

Allison Provine; Steve Mok
Emory University Healthcare - Atlanta, GA

Purpose/Background: People infected with human immunodeficiency virus (HIV) are living longer, healthier lives due to the availability of antiretroviral therapy (ART). However, these medication regimens are often complex with many potential drug interactions, putting patients at risk for adverse drug reactions or developing a drug-resistant virus. Several reports reveal high rates of medication errors in hospitalized patients prescribed ART. The purpose of the project is to evaluate the impact of pharmacist intervention in the discharge regimens of patients prescribed antiretrovirals.

Methodology: As of May 2010 at Emory University Hospital Midtown (EUMH), an infectious disease pharmacist receives a report each day indicating patients admitted to the hospital who are prescribed at least one antiretroviral and performs a medication reconciliation with each patient. Clinically significant drug interactions, incorrect dosing, and other issues discovered are communicated with the patient s physician.

Any adult, HIV-positive patient admitted to EUMH currently prescribed ART between December 1, 2009 and September 30, 2010 was eligible for inclusion in the study. The number of suboptimal therapies found in the discharge medication regimen of hospitalized patients receiving ART with or without pharmacist intervention was determined. Suboptimal therapies were defined as inadequate/inappropriate regimen, incorrect dose, incorrect dosing frequency, duplication of therapy, and major drug-drug interactions.

Results:

Conclusions:

Presentation Objective: Evaluate the impact of pharmacist intervention in the discharge regimens of patients prescribed antiretrovirals. **Self-Assessment:** What percentage of patients in each group had suboptimal therapies in the discharge medication regimen?

9:20

Room D

ID

ABSTRACT REPRODUCTION FORM

EVALUATING THE USE OF TRAMADOL IN PEDIATRIC SICKLE CELL DISEASE PATIENTS WITH VASO-OCCLUSIVE CRISIS
Mary Borgerding, Tsz-Yin So
Moses H. Cone Health System - Greensboro, NC

Purpose/Background: Pain is a hallmark of vaso-occlusive crisis (VOC) caused by sickle-cell disease (SCD) and is generated by somatic, neuropathic, and vascular mechanisms. The strategy of balanced analgesia is based on the co-administration of drugs with different pharmacological actions to control pain of different origins. Intravenous (IV) morphine plus IV ketorolac is generally the combination of choice for VOC in SCD patients at MCMH; however, morphine can cause severe respiratory depression and constipation. The purpose of this retrospective study was to assess whether the addition of scheduled PO tramadol to IV morphine plus IV ketorolac provided adequate pain relief, and reduced morphine requirements, adverse effects, length of PCA therapy, or length of stay in the hospital.

Methodology: Pediatric patients admitted to MCMH were included if they were at least 2 years old with VOC caused by SCD and if scheduled oral tramadol was added to their standard pain regimen. Exclusions included patients not tolerating oral meds; history of seizures, renal dysfunction, hepatic dysfunction, severe/acute bronchial asthma, or significant respiratory depression; allergy to tramadol, morphine, or ketorolac; acute intoxication with alcohol, hypnotics, centrally-acting analgesics, opioids, or psychotropic drugs; pregnancy; receiving MAO-I s; alpha thalassemia. Data collection will include: morphine requirements, bowel movements, tramadol use, respiratory rate, oxygen saturation, pain scores, days on PCA, and length of stay in hospital.

Results:

Conclusions:

Presentation Objective: Tramadol is an option for pain control in pediatric patients with VOC crisis caused by SCD to reduce narcotic-induced adverse effects. **Self-Assessment:** How can the addition of tramadol benefit a sickle cell patient?

9:20

Room G

PED

ABSTRACT REPRODUCTION FORM

PATIENT PERCEPTIONS OF COMMUNITY PHARMACIST ADMINISTERED INJECTABLE HORMONE THERAPY
F Cohenour, A Branham, J Moose, S Ferreri, M Marciniak
University Of North Carolina, School Of Pharmacy - Chapel Hill, NC

Purpose/Background: North Carolina law does not currently allow pharmacists to administer non-vaccine injectable medications to patients. This study explores the potential utilization of community pharmacists in administering injectable hormone therapy.

Methodology: A survey was mailed to patients eighteen years and older who had filled a prescription for depot medroxyprogesterone acetate or testosterone cypionate from January 1, 2009 through July 1, 2010 at one of six independent pharmacies or any location of a regional chain pharmacy. The eleven questions assessed patient demographics; the setting where hormone therapy is currently administered; and opinions on convenience, cost, and comfort level of having hormone therapy administered by a trained pharmacist in a community pharmacy. The survey was pilot tested prior to distribution. Those that completed the survey had the option to enter into a drawing for an incentive. Descriptive statistics were used to analyze data. Surveys were excluded from analysis if patients indicate that they had their injectable hormone therapy administered in their home.

Results: A total of 2,403 patients were identified as eligible to participate from all pharmacies. The survey was distributed to 500 patients based on their zip code.

Conclusions:

Presentation Objective: Evaluate patient opinions of having injectable hormone therapy administered in a community pharmacy by a pharmacist trained in intramuscular administration of medications. **Self-Assessment:** What are the current patient opinions and perceptions of having injectable hormones administered by a pharmacist in the community pharmacy setting?

9:20

Room H

CP

ABSTRACT REPRODUCTION FORM

MEDICATION ADHERENCE IN IRAQ AND AFGHANISTAN WAR VETERANS WITH NEUROCOGNITIVE DEFICITS
Alina Kuo, Jamie Brown, Bruce Capehart, Carol Smith Hammond, Karen Tucker
Durham VA Medical Center - Durham, NC

Purpose/Background: Poor medication adherence is associated with suboptimal clinical outcomes and increased health care expenses. This study characterizes medication adherence in a subset of Operation Enduring Freedom (OEF) and Iraqi Freedom (OIF) Veterans with cognitive deficits and possible combat related mild traumatic brain injury (mTBI). The primary objective is to compare medication adherence rates in this patient population against OEF/OIF Veterans with potential mTBI but lack cognitive deficits. The secondary objective is to identify predictors of medication adherence in patients within the cognitive deficit group.

Methodology: This retrospective study assessed returning Durham VA Medical Center OEF/OIF Veterans who screened positive for possible mTBI between April 2007 and December 2009. Cognitive deficits were identified by evaluating Repeatable Battery of the Assessment of Neuropsychological Status (RBANS) indices in relation to estimated pre-morbid cognitive function as determined by Wechsler Test of Adult Reading (WTAR) results. Age-matched OEF/OIF Veterans without identified cognitive deficits served as the comparator group. Medication adherence was determined using a medication possession ratio (MPR) with adherence established at 0.8 or greater. Age, RBANS indices, living arrangement, mental health diagnoses, use of electronic medication-assist devices, and characteristics of maintenance medications were evaluated as predictors of medication adherence using generalized regression analyses.

Results:

Conclusions:

Presentation Objective: Characterize medication adherence in OEF/OIF Veterans with possible mild traumatic brain injury and concurrent cognitive deficits. **Self-Assessment:** In this study population, which patient factor is the strongest predictor of medication adherence?

9:20

Room I

PSY

ABSTRACT REPRODUCTION FORM

IMPACT OF A NURSE-MONITORED HEPARIN ADMINISTRATION PROTOCOL ON ACHIEVEMENT OF TARGET APTT IN DVT/PE PATIENTS
Lyndrick Hamilton, Jennifer Gommer, Van Blalock
Duke University Hospital - PGY1 - Durham, NC

Purpose/Background: Unfractionated heparin is a narrow therapeutic medication that when not managed appropriately can lead to suboptimal patient outcomes and increased adverse events. Timely achievement of therapeutic levels in patients on continuous therapy demonstrates a positive impact on patient outcomes. Within Duke Hospital, primary methods of heparin management occur via either a nurse-monitored protocol and or a physician-monitored method, which is considered to be standard practice. The intent of this study is to gather information that will distinguish the protocol most appropriate for standardization purposes.

Methodology: Patients included were 18 years or older on continuous IV heparin infusion therapy with a documented indication of DVT and/or PE. The primary outcome is to assess whether differences exist in the achievement of therapeutic goal aPTT within 24 hours of heparin initiation in DVT/PE patients that have their therapy regulated via each monitoring method. Secondary outcomes are to assess the percentage of patients achieving goal aPTT within 6, 12, 18, and 24 hours after initiation of therapy, to evaluate the incidence of supra-therapeutic aPTT in each group, and to compare bleeding incidence among groups.

Results:

Conclusions:

Presentation Objective: Explain the significance of achieving timely therapeutic aPTT values in patients receiving continuous IV heparin infusion therapy for the indication of DVT and/or PE. **Self-Assessment:** List the negative patient outcomes associated with failing to achieve therapeutic aPTT values 24 hours post-continuous IV heparin therapy initiation.

lyndrick.hamilton@duke.edu

9:20

Room J

IM

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF COMPUTERIZED ORDER TEMPLATES FOR THE TREATMENT OF SINUSITIS IN THE VETERAN POPULATION

Lindsey Jackson And Kathryn Desilva
Atlanta Veterans Affairs Medical Center - Atlanta, GA

Purpose/Background: The Atlanta Veterans Affairs Medical Center (VAMC) serves as a teaching facility. Due to the transitional position of providers in training and the vast number of patients seen in the primary care clinics, the development of standardized order templates for common primary care ailments, such as sinusitis, is crucial. An order template that implements both current guidelines and formulary medications for the treatment of sinusitis would be beneficial to provide education and promote patient safety and cost-effectiveness, as well as improve the efficiency of the patient visit. The purpose of this residency project is to identify appropriate treatment options for sinusitis and implement these recommendations into a standardized order template that consists of formulary medications.

Methodology: Appropriate treatment options for sinusitis will be determined by utilizing current clinical guidelines. The treatment options will be incorporated with formulary medications to create a standardized order template. The order template will be implemented into the computerized patient record system with the assistance of the Information Technology Department. Patient centered factors including allergies, organ function, and drug interactions will be incorporated into the order template. Training will be provided via in-services to all providers in the primary care clinics.

Results:

Conclusions:

Presentation Objective: Identify appropriate treatment options for sinusitis and describe the implementation of order templates in order to promote patient safety and to improve clinical efficiency. **Self-Assessment:** What are the appropriate antibiotics for treatment of sinusitis?

9:20

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

APPROPRIATENESS OF EMPIRIC ANTIBIOTIC THERAPY FOR THE TREATMENT OF PNEUMONIA IN PATIENTS ADMITTED TO THE INTENSIVE CARE UNIT

Samantha Bastow, Jamie Kisgen
Sarasota Memorial Hospital - Sarasota, FL

Purpose/Background: Determine if empiric antibiotic selection for HAP, HCAP, and VAP at our institution is appropriate based on current IDSA/ATS guidelines and local epidemiology.

Methodology: Patients included in this retrospective review were admitted to the ICU between October 1st, 2009 and March 31st, 2010 with a diagnosis of HAP, VAP or HCAP and e18 years of age. The patient data was evaluated by the investigators in order to identify whether appropriate empiric antibiotic therapy was initiated in relation to culture and susceptibility results.

Results: Forty-one patients were included in this IRB-approved study. The primary outcome identified that the percentage of patients who received appropriate empiric antibiotic therapy was 46% (n=19). The secondary outcome measures showed that patients who received appropriate empiric antibiotic coverage had a shorter length of ICU stay, length of hospital stay and length of pneumonia treatment by 3.5 days, 3 days, and 1.5 days, respectively. Survival to hospital discharge was 72.7% and 84.2% for appropriately covered and not appropriately covered groups, respectively.

Conclusions: Empiric antibiotic coverage in the HAP, HCAP and VAP patients at our institution did not adequately cover the offending bacteria in nearly half of the cases. Based on this data, we developed a protocol incorporating current guidelines and local epidemiology.

Presentation Objective: Identify the steps necessary to develop an institution-specific pneumonia protocol. **Self-Assessment:** Which of the following steps are necessary for the development of a pneumonia protocol?

9:20

OLY 2

ID

ABSTRACT REPRODUCTION FORM

IMPACT OF A CLINICAL PHARMACIST ON MEDICATION REGIMEN IN SELECT POLYPHARMACY PATIENTS

Elizabeth Westbrook and William Elliott
Fayetteville VA Medical Center - Fayetteville, NC

Purpose/Background: To analyze and impact medication regimen in patients taking 15 or more medications by conducting a chart review and then conducting a phone consultation and finally, making recommendations to primary care providers (PCP).

Methodology: Patients were eligible if they were prescribed 15 or more medications and had a scheduled appointment with a participating PCP during February 2011. Patients currently residing in a nursing/retirement home, receiving hospice care, or admitted to the hospital at the time of their appointment were excluded. Recommendations for the medications to be discontinued were based on therapeutic duplication, medications prescribed without indications, drug-drug interactions, medications causing adverse effects, and medications to treat adverse drug effects. Recommendations were also made to add medications if the patients had disease states not adequately treated. Eligible patients were contacted via phone to discuss the medications the patient was currently taking, their refill history, effectiveness of medications, and possible side effects. Conversation and recommendations for the patient's PCP were documented. Post-intervention chart reviews were performed to determine acceptance of recommendations.

Results:

Conclusions:

Presentation Objective: Describe the impact a clinical pharmacist can have on the medication regimens of polypharmacy patients. **Self-Assessment:** How can a clinical pharmacist impact the quality of care for patients with multiple medications?

9:20

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

EVALUATION OF MEDICATION, SUPPLEMENT AND SUBSTANCE USE DURING PREGNANCY

Bethany Della Vecchia, Thanh Hogan, Jeniffer Dela Cruz, Elaine Poon
Shands Jacksonville Department Of Pharmacy - PGY1 - Jacksonville, FL

Purpose/Background: Every year in the United States alone, there are approximately 6 million pregnancies. With nearly 50% of all pregnancies being unintended and over 80% of women of childbearing age using medications, fetuses may be unintentionally exposed to medications or other substances during the most critical first few weeks of their development. Thus, based on possible risks and high rates of use, it is important that an evaluation of prescription and over-the-counter (OTC) medication, supplement, and substance use, during all stages of pregnancy, be performed.

Methodology: Women were eligible to participate if they were at least 18 years old, in any trimester of their pregnancy, and were receiving prenatal care at Shands Jacksonville's Care Center for Women. If eligible, subjects were asked to participate and sign an informed consent for enrollment into the study. Data was collected regarding medication, supplement and substance use, including drug name, duration of use and rationale for use during an initial in-person interview. A follow-up interview, to collect similar data, was conducted via telephone once every subsequent trimester of pregnancy if the subject was in her first or second trimester at the initial interview.

Results:

Conclusions:

Presentation Objective: Understand medication use trends in women during any stage of pregnancy. **Self-Assessment:** What is the most common class of medications used during pregnancy?

9:20

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

PHARMACOLOGIC TREATMENT OF DELIRIUM IN THE ICU OF A 530-BED
ACADEMIC MEDICAL CENTER, LEVEL 1 TRAUMA CENTER
Sara Parli, David Deen, Michael Melroy, Rachel Hemberger, Megan Schoeffler
Memorial University Medical Center - Savannah, GA

Purpose/Background: Delirium is common in the intensive care unit, occurring in up to 80% of critically ill patients. Studies have shown that patients with ICU delirium have a longer hospital length of stay, increased reintubation rates and increased risk of 6-month mortality, leading to higher costs. Currently there is no standard treatment for ICU delirium. It is suspected that pharmacologic treatment with recommended antipsychotics will result in decreased ICU and hospital length of stay.

Methodology: Eligible patients are adults admitted to the intensive care unit between September 2008 and September 2010 who have a documented presence of delirium based on the CAM-ICU scoring. Excluded patients include pediatric patients, pregnant patients, patients who were enrolled in other studies, patients previously diagnosed with a psychiatric disorder requiring the use of antipsychotics prior to admission and patients with other criteria to be presented.

Results:

Conclusions:

Presentation Objective: Compare ICU and hospital length of stay in ICU patients with delirium who have or have not received pharmacologic treatment for delirium. This study will also assess benzodiazepine use and incidence of pharmacologic treatment as well as ventilator days. **Self-Assessment:** What should be recommended regarding benzodiazepine use if a patient becomes delirious in the ICU?

9:40

Room A

CCM

ABSTRACT REPRODUCTION FORM

BENZODIAZEPINE BASAL-BOLUS MODEL VERSUS CONTINUOUS INFUSION FOR
SEDATION IN MEDICAL CRITICALLY ILL PATIENTS
Lisa M. Pelletier, Trisha Branam
MCG Health-UGA PGY1 Pharmacy - Augusta, GA

Purpose/Background: The goal of this study is to compare total daily benzodiazepine use prior to and after sedation protocol implementation. The MCG Health Medical Intensive Care Unit has instituted a sedation protocol that incorporates a benzodiazepine basal-bolus dosing strategy, daily awakenings, spontaneous breathing trials, and a validated sedation scoring system. Current critical care medicine guidelines for the critically ill adult recommend using a sedation protocol in the intensive care setting. The goal of the dosing strategy is to achieve the desired level of sedation rapidly through bolus doses rather than waiting for changes in a continuous infusion rate to take effect. This change in sedative dosing is anticipated to decrease the daily benzodiazepine use in the medical critically ill patient. Less sedative use in patients would have numerous benefits including a decrease in costs and delirium rates. This study will assess the total daily benzodiazepine use prior to and after protocol implementation as well as secondary outcomes including length of intensive care unit stay, time on mechanical ventilation, incidence of ventilator-associated pneumonia, and benzodiazepine cost.

Methodology: A chart review will be used to compare patients who received continuous infusions of midazolam or lorazepam from September to November 2010 (prior to protocol implementation) to patients receiving basal-bolus midazolam and lorazepam from September to November 2011 (after protocol implementation).

Results:

Conclusions:

Presentation Objective: Describe the rationale behind the benzodiazepine basal-bolus model for sedation in medical critically ill patients. **Self-Assessment:** What are the expected benefits of the basal-bolus model for sedation?

9:40

Room B

CCM

ABSTRACT REPRODUCTION FORM

EVALUATION OF SHORT-COURSE THERAPY FOR STAPHYLOCOCCUS AUREUS
BLOODSTREAM INFECTIONS IN THE INTENSIVE CARE UNIT
Tanea Chane; Manish Patel; Saira Rab; Yun F. Wang; Naasha Talati
Grady Health System - Atlanta, GA

Purpose/Background: Staphylococcus aureus is a virulent pathogen that can result in increased rates of morbidity and mortality when present within the bloodstream. The risk for Staphylococcus aureus bacteremia (SAB) increases in the presence of underlying disease states, immunosuppression, invasive procedures, and use of intravascular devices. Duration of treatment can be a short- (14 days) or long-course (28 days), depending on specific clinical criteria.

Long-course therapy was once considered the mainstay of therapy for SAB. However, that recommendation is controversial since it is thought to increase risks for drug toxicity, antibiotic resistance, and overall cost. In contrast, there are studies that suggest short-course therapy may provide sufficient therapy. However, patients are required to meet various criteria if considered appropriate for short-course treatment.

The aim of this study is to evaluate use of short-course regimens in the intensive care and/or step-down units for SAB and to determine if patients were treated according to IDSA guidelines.

Methodology: A retrospective chart review will be conducted at Grady Memorial Hospital to assess compliance with short-course therapy criteria for SAB infections. Approximately 150 patients from the intensive care and/or step-down units will be identified from microbiology reports isolating MSSA or MRSA from blood cultures during January 2008 to December 2009. Appropriate duration of therapy will be assessed by evaluating the severity of SAB and considering the criteria for short-course treatment.

Results:

Conclusions:

Presentation Objective: List the criteria required for short-course treatment of SAB. **Self-Assessment:** What complications can result from partially treated SAB?

9:40

Room C

ID

ABSTRACT REPRODUCTION FORM

INCIDENCE OF ACUTE KIDNEY INJURY ASSOCIATED WITH VANCOMYCIN
THERAPY AMONG HOSPITALIZED PATIENTS
Roxanne Hotz, Andy Carr, Sabrina Tinsley
Birmingham VA Medical Center - Birmingham, AL

Purpose/Background: Vancomycin has been used for roughly 50 years and remains one of the most widely used agents against methicillin-resistant Staphylococcus aureus. Even with extensive use, vancomycin has received negative connotation due to its adverse effect profile, most notably nephrotoxicity. In 2009, the American Society of Health-System Pharmacists, Infectious Diseases Society of America, and Society of Infectious Diseases Pharmacists published a therapeutic drug monitoring review of vancomycin. The consensus review recommends target vancomycin trough levels maintained at 15-20 mcg/dL for many indications. This may necessitate the use of higher doses of vancomycin which may increase the potential for toxicity. The purpose of this study is to determine the incidence of acute kidney injury in hospitalized patients who have received intravenous vancomycin for greater than 48 hours.

Methodology: Patients who received intravenous vancomycin for greater than 48 hours between January and June 2010 will be included in this study. A retrospective chart review will be conducted. Patients identified will be evaluated for changes in serum creatinine and further examined to determine if the patient meets the criteria for acute kidney injury. Of those who have renal toxicity, other possible contributing factors will be evaluated.

Results:

Conclusions:

Presentation Objective: To review the incidence of acute kidney injury associated with the use of vancomycin at our institution and determine any factors that may have contributed to the development of acute kidney injury. **Self-Assessment:** Is the use of vancomycin at higher trough levels associated with the development of acute kidney injury?

9:40

Room D

ID

ABSTRACT REPRODUCTION FORM

AN EVALUATION OF INITIAL VANCOMYCIN DOSING IN INFANTS, CHILDREN,
AND ADOLESCENTS
Laura A. Broome, Tsz-Yin (Jeremy) So
Moses H. Cone Health System - Greensboro, NC

Purpose/Background: The pharmacokinetic parameters of many medications change as we age, thus most would assume dosing strategies would adjust to these changes. However, only one dosing regimen is recommended for vancomycin in the pediatric population, not adjusting for the variability in pharmacokinetic parameters among pediatric age groups. The objective of this study is to evaluate the initial vancomycin dosing in three pediatric age groups based on measured serum trough concentrations.

Methodology: This retrospective, non-interventional, pilot study was approved by the IRB to include patients between 1 month to 18 years old admitted to the Moses Cone Memorial Hospital general pediatric unit or pediatric intensive care unit. All patients must have received vancomycin with an appropriately measured trough concentration. Electronic and paper medical records will be reviewed to collect the patients' initial vancomycin dosing regimen and measured serum trough concentrations. The primary outcome of this study is to determine how often the goal serum trough concentration is met with the hospital's initial standard vancomycin dosing regimen in each of the pediatric age groups. Secondary outcomes include the average daily dose of vancomycin and the percentage of patients with therapeutic, subtherapeutic, and supratherapeutic trough concentrations.

Results:

Conclusions:

Presentation Objective: Assess the need for a revision to the initial dosing strategies for vancomycin in pediatric patients. **Self-Assessment:** Should pediatric patients receive different starting doses of vancomycin to achieve target serum trough concentrations?

9:40

Room G

PED

ABSTRACT REPRODUCTION FORM

FACTORS INFLUENCING ASSESSMENT OF CHRONIC PAIN DURING
COMPREHENSIVE MEDICATION REVIEW
M Collver, A Branham, J Moose, T Ives, M Marciniak, S Ferreri
University Of North Carolina, School Of Pharmacy - Chapel Hill, NC

Purpose/Background: Identify factors that influence a pharmacist's assessment of chronic pain during comprehensive medication reviews (CMRs).

Methodology: Subjects eligible to participate in an online survey were North Carolina community pharmacists who conduct CMRs. The survey was e-mailed to 5025 pharmacists and was available for 28 days with a reminder sent at 14 days. The survey identified issues that pharmacists encounter when conducting CMRs with patients on chronic pain therapy. Incentives were offered to complete the survey. Descriptive statistics were used to analyze the data.

Results: The survey was completed by 917 pharmacists (18.2%). Approximately 70% of respondents do not conduct CMRs and therefore did not meet inclusion criteria. Of the remaining participants, 70% agree or strongly agree that they assess chronic pain during CMRs. Almost 60% stated that liability and legal issues concern them when conducting CMRs with chronic pain patients. Physical appearance affects 28.4% of pharmacists from making a pain assessment while 88% are more comfortable making pain assessments if they are familiar with the patient.

Conclusions: The majority of respondents assess chronic pain during CMRs regularly. Legal issues are the largest concern for pharmacists surveyed while appearance plays a smaller role. Familiarity with patients is associated with an increased likelihood of the pharmacist making a pain assessment.

Presentation Objective: Identify the main factor that concerns pharmacists regarding chronic pain management. **Self-Assessment:** What is one area where pharmacists can increase their comfort in assessing chronic pain during CMRs?

9:40

Room H

CP

ABSTRACT REPRODUCTION FORM

ADHERENCE TO LONG-ACTING INJECTABLE ATYPICAL ANTIPSYCHOTIC
THERAPY: A RETROSPECTIVE REVIEW
Laura Honeycutt, Fern Paul-Aviles, Susan Bear
Carolinas Medical Center - Charlotte, NC

Purpose/Background: Continuous antipsychotic therapy has been shown to lower relapse and re-hospitalization rates in patients with psychiatric conditions, but adherence remains a significant barrier to effective disease management. Long-acting injectable atypical antipsychotics (LAIAAs), including paliperidone palmitate, are believed to improve adherence by combining the long duration of action associated with conventional antipsychotic depot injections with the enhanced efficacy and tolerability of atypical agents. However, the rate and impact of suboptimal adherence to LAIAA therapy remains uncertain. The primary objective of this study is to evaluate adherence to long-acting atypical antipsychotic therapy in patients treated at a behavioral health facility.

Methodology: This retrospective, observational study includes patients >18 years of age who received at least one dose of paliperidone palmitate between June 2010 and September 2010. Medication adherence will be assessed over a six-month period using a medication possession ratio (MPR). Degrees of adherence will be classified as adherent (MPR >0.8), partially adherent (MPR 0.5-0.8), or non-adherent (MPR <0.5). Compliance with the recommended injection administration schedule will also be used to measure adherence. The timing of each administered dose will be classified as early, on-schedule, overdue, or overdue with the need for re-stabilization dosing. Secondary objectives are to evaluate relapse rates, safety, payer sources, and provider documentation rates.

Results:

Conclusions:

Presentation Objective: Describe adherence to paliperidone palmitate therapy in patients treated at a behavioral health facility. **Self-Assessment:** What is the recommended administration schedule for paliperidone palmitate injections?

9:40

Room I

PSY

ABSTRACT REPRODUCTION FORM

EFFICACY AND TOLERABILITY OF DRONEDARONE COMPARED TO DOFETILIDE
FOR THE MAINTENANCE OF SINUS RHYTHM ATRIAL FIBRILLATION
Xuan T. Nguyen; Kristen Bova Campbell; Kevin L. Thomas
Duke University PGY2 Cardiology Residency - Durham, NC

Purpose/Background: Dronedarone, a class III antiarrhythmic agent pharmacologically related to amiodarone, is the newest agent available for the treatment of atrial fibrillation (AF). Differences in its chemical structure decrease lipophilicity and half-life and subsequently reduce accumulation and toxicities associated with amiodarone therapy. Dofetilide is commonly utilized for cardioversion and maintenance of sinus rhythm, specifically in patients with heart failure and as an alternative to amiodarone. There is limited to no data to attest to the efficacy and tolerability of dronedarone in clinical practice and comparisons to dofetilide are lacking. The objective of the study is to determine the efficacy and tolerability of dronedarone compared to dofetilide in patients with AF.

Methodology: Upon Institutional Review Board approval, a query was performed utilizing health-system databases to identify patients receiving either dronedarone or dofetilide from July 1, 2009 through September 30, 2010. Adult patients with a diagnosis of persistent or paroxysmal AF initiated on dronedarone or dofetilide during the specified time period by a Duke University Health System cardiology service will be included. Descriptive and comparative statistics will be utilized for data analysis. The primary endpoint is time to first recurrence of AF following study medication initiation. Secondary endpoints are incidence of adverse events associated with study medication use and rates of discontinuation secondary to adverse events.

Results:

Conclusions:

Presentation Objective: Describe the incidence of recurrent AF for dronedarone compared to dofetilide in patients with paroxysmal and persistent AF. **Self-Assessment:** What pharmacokinetic properties of dronedarone result in decreased accumulation and toxicity?

9:40

Room J

IM

ABSTRACT REPRODUCTION FORM

IDENTIFICATION OF RISK FACTORS ASSOCIATED WITH FALLS IN HOSPITALIZED PATIENTS RECEIVING BENZODIAZEPINES

Katie Miller, Bradley Jones, Nancy Beecher
Centennial Medical Center - Nashville, TN

Purpose/Background: Particular attention has been paid to preventing and reducing the number of falls within the inpatient setting since 2005 when the Joint Commission issued National Patient Safety Goals specifically addressing falls. The primary objective of this investigation is to identify risk factors associated with falls in hospitalized patients taking benzodiazepines.

Methodology: The study is a retrospective, case-control study designed to investigate risk factors associated with falls in patients receiving benzodiazepines. Data will be collected for patients admitted to Parthenon Pavilion, a psychiatric hospital, at Centennial Medical Center. Cases will include patients admitted to Parthenon Pavilion from June 30th, 2009 to June 30th, 2010 who experienced one fall during their stay and were receiving benzodiazepines. Data to be collected for each patient will include age, sex, body mass index (BMI), acuity level (Medicare Acute Case Mix Index), comorbidities (renal disease, hepatic disease, etc.), specific benzodiazepine(s) utilized, type of dosing regimen utilized for each benzodiazepine, number of benzodiazepines, and concomitant medications associated with falls. Controls will be matched by age and gender. Exclusion criteria include age less than 18 years old, pregnancy, patients with missing medical records for data collection, and those who fell more than once during their stay.

Results:

Conclusions:

Presentation Objective: Identify potential risk factors associated with falls in hospitalized patients receiving benzodiazepines. **Self-Assessment:** What are some of the identifiable risk factors associated with falls in hospitalized patients receiving benzodiazepines?

9:40

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

STANDARDIZATION AND OPTIMIZATION OF ADVANCED PHARMACY PRACTICE EXPERIENCE CLERKSHIPS AT INDIAN RIVER MEDICAL CENTER

Kelly Kasten, William Terneus, Robb Mcgory, Amber Hutchison, Serenity Ford
Indian River Medical Center - Vero Beach, FL

Purpose/Background: Indian River Medical Center provides several Advanced Pharmacy Practice Experience (APPE) rotations to multiple colleges of pharmacy. The intent of this project is to standardize the APPE s thus providing optimal experiences for the students as well as better student utilization for enhanced patient care.

Methodology: The Accreditation Council for Pharmacy Education (ACPE) guidelines for APPE s were reviewed as well as the expectations of each of the colleges of pharmacy. In addition, the needs of the department were assessed to determine what standardized services students could perform. To provide for a consistent student experience, a uniform syllabus for each rotation was created with clear and thoroughly defined expectations while meeting each college of pharmacy s requirements. Also implemented were an orientation program and checklist, student competencies and a daily student clinical work queue including activities such as screening for core measures, monitoring warfarin and pharmacokinetic consults, preparing for daily rounds and patient education. The preceptors were educated regarding the changes made to the program. The number of clinical interventions documented in the pharmacy order entry software will be compared before and after initiating the new standardized student program. Each student will also undergo an exit interview upon completing the rotation to further enhance the program.

Results:

Conclusions:

Presentation Objective: Describe the necessity in standardizing a student experiential program and the impact it can have in hospital pharmacy practice. **Self-Assessment:** What tasks can be delegated to students in order to improve the workflow of a hospital pharmacy?

9:40

OLY 2

ADM

ABSTRACT REPRODUCTION FORM

THE EFFECTS OF EXENATIDE ON WEIGHT IN TYPE 2 DIABETIC VETERANS

Tiffany Jagel, Katrina Fantaski
VA Gulf Coast Joint Ambulatory Care Center - Pensacola, FL

Purpose/Background: As the prevalence of diabetes and obesity continues to escalate in the United States, medications to treat both problems are becoming more valuable. Unfortunately, most currently available antidiabetic medications tend to cause weight gain resulting in negative outcomes. Increased weight causes numerous problems including heart disease, cancer, hypertension, stroke, liver disease, respiratory problems, infertility, sleep apnea, and osteoarthritis. Furthermore, mortality rate among diabetics simultaneously increases as weight increases.

Clinical trials of exenatide, the first FDA approved incretin mimetic, have shown favorable weight reductions. However, these studies have been restrictive in patient selection criteria and results have varied greatly. The results of this study will reveal just how beneficial exenatide is in our patient population.

Methodology: This will be a retrospective study examining weight loss in type 2 diabetics after 16 weeks of exenatide therapy. The primary endpoint is change in weight with >4 kg considered to be clinically significant. A secondary endpoint of change in HbA1c will also be evaluated with >10% change considered clinically significant.

Subgroup analysis will assess characteristics that may make weight loss more or less likely: HbA1c, C-peptide, body mass index, duration of diabetes, and presence of basal insulin at time of exenatide initiation as well as change in HbA1c from baseline.

Results:

Conclusions:

Presentation Objective: Identify realistic weight loss potential of exenatide in a type 2 diabetic adult. **Self-Assessment:** What patient characteristics (if any) may make a potential exenatide user more likely to achieve weight reduction?

9:40

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

ASSESSING THE USE OF ASTHMA MEDICATIONS AMONG PATIENTS WITH RECENT HOSPITALIZATIONS OR ED VISITS FOR ASTHMA EXACERBATION

Matt Hinton, Joe Cammilleri, Amber Chaki
Shands Jacksonville Department Of Pharmacy - PGY1 - Jacksonville, FL

Purpose/Background: Acute asthma exacerbations are a major preventable burden on the healthcare system. The United States Center for Disease Control reported that in 2002 asthma caused 4,261 deaths, 1.9 million Emergency Department (ED) visits, and 484,000 hospital admissions. It has been hypothesized that poor compliance with inhaled medications is a major reason for inadequate asthma control. The purpose of this project was to assess the prevalence of misconceptions among patients concerning the proper use of their inhaled asthma maintenance medications.

Methodology: Patients who presented to the Shands Jacksonville Medical Center with an acute asthma exacerbation and were given a prescription for budesonide/formoterol (Symbicort®) or fluticasone/salmeterol (Advair®) inhalers were the target population for this study. Patients were contacted by telephone and read a questionnaire designed to assess their understanding of proper inhaler technique, the source of their medication counseling, and degree of comfort with their medication. The patients' responses were recorded and reported as endpoints to the study. A sub-group analysis was conducted on patients that were hospitalized versus those that were only seen in the emergency department. Hospitalized patients are provided pharmacy counseling on fluticasone/salmeterol inhalers per institutional policy. The responses between these groups were compared to assess the effectiveness of inpatient pharmacy counseling on proper medication taking behavior.

Results:

Conclusions:

Presentation Objective: Identify patients with an increased need for extensive medication counseling **Self-Assessment:** What impact can pharmacists make on compliance and overall outcomes associated with asthma in the hospital setting?

9:40

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

DEFINING THE ROLE OF CURRENT EMERGENCY DEPARTMENT CLINICAL PHARMACISTS

Leigh Wisnieski, Nishi Patel, Idi Idiong, Trista Wagoner
Bay Pines VA Medical Center - Bay Pines, FL

Purpose/Background: While the use of clinical pharmacists within the emergency department is not common, this emerging practice setting for pharmacists is gaining support quickly and becoming more popular. Studies have continually shown that pharmacy services within the emergency department promote safe and appropriate medication use, which in turn leads to improved patient outcomes and cost effectiveness. Depending on each institution's needs and resources, the role of the clinical pharmacist within the emergency department and the nature of the pharmacy services they provide will vary. The purpose of this project is to define the role of current emergency department clinical pharmacists at the Bay Pines VA.

Methodology: All pharmacists working in the Bay Pines VA emergency department prospectively documented all interventions made on a daily basis between August 1, 2008 to July 31, 2010. Intervention categories included, but are not limited to the following: medication reconciliation, medication dosing referred to pharmacist, questions from nursing staff, acute interventions, drug-drug interaction identification, changes in route of drug administration, formulary interchanges, documentation of non-VA medications, allergy assessments, filling of prescriptions, preparing of IV medications and patient education. The intervention data will be retrospectively analyzed to help determine the daily activities and common medical interventions made by the clinical pharmacists within the emergency department.

Results:

Conclusions:

Presentation Objective: List potential interventions that can be made by a clinical pharmacist in an emergency department setting. **Self-Assessment:** What is the most common intervention made by an emergency department pharmacist at the Bay Pines VA?

10:00

Room A

CCM

ABSTRACT REPRODUCTION FORM

COMPARING A NEW EMERGENCY MEDICINE CLINICAL PHARMACY SERVICE IN THE EDS OF AN URBAN ACADEMIC AND A COMMUNITY HOSPITAL

Derek M. Polly, Chad Hatfield
Emory University Critical Care - Atlanta, GA

Purpose/Background: The emergency department (ED) is a unique practice environment ripe with opportunity for clinical pharmacist intervention. Research regarding clinical pharmacy services in the ED has grown tremendously in recent years. Currently, much of this research involves urban academic medical centers. Additionally, no study has compared the impact of these services between two different medical centers. The objective of this study is to compare the impact of a new emergency medicine clinical pharmacy service in the emergency departments of an urban academic and a community hospital.

Methodology: Emory University Hospital (EUH) is a 587 bed urban academic medical center. Emory University Hospital Midtown (EUHM) is a 511 bed urban community medical center. A PGY-2 Critical Care pharmacy resident was assigned to the ED providing clinical services Monday through Friday for one month at each location. All interventions were prospectively documented. Interventions were evaluated for cost avoidance, acceptance rate, and type. The results were compared between the two sites.

Results: A total of 390 interventions were recorded during 20 shifts at EUH for an average of 19.5 per shift. A total of 365 interventions were recorded during 16 shifts at EUHM for an average of 22.8 per shift.

Conclusions: The number of pharmacist interventions in the ED is similar between an academic and a community setting.

Presentation Objective: Describe the range of services and cost savings provided by clinical pharmacy services in the ED. **Self-Assessment:** Do clinical pharmacy services in the ED provide a greater impact at an academic or a community hospital?

10:00

Room B

CCM

ABSTRACT REPRODUCTION FORM

EVALUATION OF ASYMPTOMATIC BACTERIURIA MANAGEMENT AT A LARGE TEACHING HOSPITAL

Andy Perez; Saira Rab; Naasha Talati
Grady Health System - Atlanta, GA

Purpose/Background: Asymptomatic bacteriuria is defined as isolation of a specified quantitative count of bacteria in an appropriately collected urine specimen obtained from a person with no signs/symptoms of urinary tract infection. Limited data exist to show improvement in the majority of patient outcomes as a result of treatment of asymptomatic bacteriuria. There are also negative consequences that may be associated with treatment, such as subsequent antimicrobial resistance, adverse drug effects, and increased cost. The purpose of this study is to determine the extent of inappropriate prescribing of antimicrobials for asymptomatic bacteriuria at Grady Memorial Hospital (GMH).

Methodology: In this observational, prospective study, eligible patients will be identified by reviewing all positive urine cultures for adult, non-ICU patients at GMH during a 3-month period. Patient charts will be reviewed to determine if they were inappropriately prescribed antimicrobials for asymptomatic bacteriuria per Infectious Diseases Society of America (IDSA) guidelines for management of asymptomatic bacteriuria. The primary outcome measure will be the percent of patients inappropriately prescribed antimicrobials for asymptomatic bacteriuria. Secondary outcome measures include the economic cost of inappropriate prescribing of antimicrobials for asymptomatic bacteriuria, determination of any risk factors for inappropriate prescribing of antimicrobials for asymptomatic bacteriuria (e.g. age, gender, concurrent disease states, hospital service, medical specialty), and any adverse drug effects from inappropriate therapy.

Results:

Conclusions:

Presentation Objective: Determine the extent of inappropriate prescribing of antimicrobials for asymptomatic bacteriuria at an academic medical center. **Self-Assessment:** What, if any, risk factors exist for inappropriate prescribing of antimicrobials for asymptomatic bacteriuria?

10:00

Room C

ID

ABSTRACT REPRODUCTION FORM

EVALUATION OF PREOPERATIVE CEFAZOLIN IN OBESE PATIENTS: A CONTROLLED RETROSPECTIVE REVIEW

Nathan Unger, Bradley Stein
James A. Haley Veterans Hospital - Tampa, FL

Purpose/Background: Surgical site infections (SSIs) are recognized as the second most common cause of nosocomial infections; in addition, these patients are five times more likely to be readmitted and two times more likely to die. Cefazolin is the most widely used prophylactic antibiotic due to its duration of action, antimicrobial spectrum of activity, and low cost. Preoperative antibiotics are standardized per established guidelines such that patients weighing < 80 kilograms (kg) receive 1 gram (g) intravenously (IV) and patients weighing \geq 80 kg receive 2 g IV. The primary objective is to determine whether 2 g of preoperative cefazolin is adequate to prevent a SSI in obese patients at the JAHVA. A secondary objective is to evaluate whether weight affects the incidence of SSIs.

Methodology: Electronic medical record review will be performed on patients who received cefazolin 2 g as a preoperative antibiotic from July 1st, 2009 through August 1st, 2010. Patients meeting inclusion and exclusion criteria will be randomly selected and equally matched: 100 in the control group (BMI < 30) and 100 in the investigation group (BMI \geq 30). A Pearson's chi-square test will be used to determine if a significant difference in the rate of SSIs exists between obese patients as compared to non-obese patients.

Results:

Conclusions:

Presentation Objective: Identify the influence of weight on preoperative antibiotic prophylaxis with cefazolin. **Self-Assessment:** Is cefazolin 2 grams an effective dose to prevent surgical site infections in obese patients?

10:00

Room D

ID

ABSTRACT REPRODUCTION FORM

OPTIMIZING THE USE OF DEXMEDETOMIDINE (PRECEDEX®) SEDATION IN PEDIATRIC PATIENTS DURING ELECTROENCEPHALOGRAPH (EEG) TESTING.

Jennifer Gremke, Darren Drew, Tammy Waterman
 Carolinas Medical Center - Northeast - Concord, NC

Purpose/Background: There are few classes of sedative agents available to the pediatric population to ensure successful immobility for radiological imaging studies. Recently, there has been a growing interest in dexmedetomidine, an α_2 -adrenergic receptor agonist with sedative properties and minimal respiratory depression. Some advantages of dexmedetomidine over the standard barbiturates and hypnotics are its short half-life as well as its minimal interference with underlying seizure activity. Although it has a favorable profile for procedural sedation, there is little information regarding its dosing in pediatric patients. The purpose of this study is to understand and describe sedation patterns in pediatric patients undergoing EEG procedures with dexmedetomidine in order to optimize dosing and monitoring guidelines for use by the CMC-NE anesthesia department.

Methodology: Retrospective chart review of pediatric patients (<18 years old) who received dexmedetomidine for an EEG procedure during January-September 2010, as identified by ICD-9 codes. Variables which were collected include: demographic information, diagnosis for EEG, dose, length of case, recovery time, interruption of sedation, home medications, pertinent past medical history, blood pressure and heart rate change during procedure.

Results:

Conclusions:

Presentation Objective: To describe the sedation patterns of pediatric patients undergoing EEG procedures with dexmedetomidine. **Self-Assessment:** Were there any characteristics which would predispose pediatric patients to prolonged sedation? Are there any types of dosing recommendations which can be made based on the data?

10:00

Room G

PED

ABSTRACT REPRODUCTION FORM

CURRENT AND PROSPECTIVE STUDENT PHARMACIST INTEREST IN A RURAL HEALTH PHARMACY CURRICULUM

Shanna O Connor, Jeff Reichard, Macary Marciniak, Stefanie Ferreri
 University Of North Carolina, School Of Pharmacy - Chapel Hill, NC

Purpose/Background: Needs assessment of our state have shown health disparities in rural areas. This project was undertaken to determine current and prospective student pharmacist interest in rural health; this information will help shape a rural health-focused pharmacy curriculum.

Methodology: This prospective, web-based survey that was approved by the Institutional Review Board was conducted with a school of pharmacy at a public, research-intensive university. Current Doctor of Pharmacy (PharmD) students and applicants selected for an interview for fall 2011 enrollment were invited to participate in the survey. Email addresses were obtained from the school's office of student services. Participants were asked to complete a 17-item survey via SurveyMonkey. Questions pertain to participant interest in a pharmacy curriculum focused on the needs of patients in rural areas. The survey will be available for three weeks, and a prompting reminder e-mail will be sent one week prior to the survey's closing date. Data collected will be response rate, rurality of respondents, and responses to level-of-interest questions. The data will be used to help shape a proposal for a rural health based pharmacy curriculum at the school of pharmacy.

Results: An invitation to participate in the survey was sent to approximately 550 pharmacy students. To date, 100 responses have been received.

Conclusions:

Presentation Objective: Describe the interest of current and prospective student pharmacists in a rural health focused pharmacy curriculum and how this interest may impact development of the curriculum. **Self-Assessment:** What is the current interest of student pharmacists and applicants in a rural health curriculum?

10:00

Room H

CP

ABSTRACT REPRODUCTION FORM

IMPACT OF PRETREATMENT WITH AMOBARBITAL ON ELECTROCONVULSIVE THERAPY OUTCOMES

Clint Ross, Amy Vandenberg, E. Baron Short
 Medical University Of South Carolina - Charleston, SC

Purpose/Background: Anxiety prior to electroconvulsive therapy (ECT) is a common problem. Since seizure duration of 20 (motor) and 25 seconds (EEG) is desired, benzodiazepines are seldom used pre-ECT due to potential for preventing an adequate seizure. Amobarbital has increasingly been used at The Medical University of South Carolina (MUSC) for treatment of pre-ECT anxiety. Amobarbital was chosen for its rapid onset, short half-life, and IM formulation. To date, amobarbital use has not been systematically evaluated in this population. The aim of this study is to determine whether pretreatment with amobarbital impacts ECT outcomes.

Methodology: This is a retrospective review of patients receiving ECT at MUSC from 11/01/2007 to 09/01/2010. Charts were reviewed for demographics, ECT indication, treatment number, seizure duration, location and strength of stimulus, and dose of amobarbital used. Data will be used to perform an analysis between patients who received ECT without amobarbital pretreatment and those who received ECT following amobarbital pretreatment.

Results: Between 11/01/2007 and 09/01/2010, 396 patients received inpatient ECT. Of these, 120 received amobarbital pretreatment at least once. Preliminary data analysis (n=25) showed average ECT induced seizure duration was 24 (motor) and 43 seconds (EEG) without amobarbital pretreatment and 23 (motor) and 39 seconds (EEG) with amobarbital pretreatment.

Conclusions: Upon completion of data analysis, full results and conclusions will be presented.

Presentation Objective: Describe the risks and benefits of using amobarbital to treat pre-ECT anxiety. **Self-Assessment:** If amobarbital pre-treatment decreases duration of seizure, would that increase or decrease the efficacy of ECT?

10:00

Room I

PSY

ABSTRACT REPRODUCTION FORM

COMPARISON OF THE INCIDENCE OF BLEEDING IN PATIENTS BEING MANAGED WITH PCI TREATED WITH PRASUGREL VERSUS CLOPIDOGREL

Julie Harrison, Michael Everett
 St. Joseph's Hospital - Tampa, FL

Purpose/Background: Prasugrel is a thienopyridine antiplatelet agent indicated to reduce the incidence of thrombotic complications in patients with acute coronary syndromes (ACS) being managed with percutaneous coronary intervention (PCI). There is evidence that prasugrel is more effective than the pre-existing first-line therapy, clopidogrel, in certain patient populations. However, there is an increased risk of bleeding with prasugrel that must be taken into consideration. The purpose of this study is to compare the incidence of major, minor, and minimal bleeding in patients who receive prasugrel 60 mg, clopidogrel 300 mg, and clopidogrel 600 mg. These medications and dosages reflect the most current guidelines on the use of anticoagulants with percutaneous coronary intervention.

Methodology: The study is a retrospective analysis of patients with ACS managed with PCI and who have received at least one dose of either prasugrel 60 mg, clopidogrel 300 mg, or clopidogrel 600 mg. Measurable endpoints include the incidence of major bleeding, as well as both minor bleeding and minimal bleeding as defined by the Thrombolysis in Myocardial Infarction (TIMI) classification. Patient demographics including age, weight, platelet count, and previous antiplatelet or thienopyridine therapy will be collected to assess baseline differences between treatment groups that may influence the patient's risk of bleeding.

Results:

Conclusions:

Presentation Objective: Evaluate the safety of prasugrel and clopidogrel in patients with ACS who are managed with PCI. **Self-Assessment:** What are the most effective laboratory parameters that pharmacists can assess when monitoring patients on a thienopyridine?

10:00

ROOM J

IM

ABSTRACT REPRODUCTION FORM

IDENTIFICATION OF RISK FACTORS FOR OVER-SEDATION REQUIRING REVERSAL WITH NALOXONE IN PATIENTS TAKING PARENTERAL OPIOIDS
Paul Schrimsher And Brad Jones
Centennial Medical Center - Nashville, TN

Purpose/Background: The purpose of this investigation was to assess the risk factors that may contribute to over-sedation requiring reversal with naloxone in patients that receive parenteral opioids.

Methodology: This was a retrospective, case control study comparing patients administered the parenteral opioids morphine, meperidine, and hydromorphone who experienced an episode of over-sedation requiring the reversal agent naloxone with patients receiving the same parenteral opioids who did not experience over-sedation. Inclusion criteria were non-ICU hospitalized patients who received parenteral morphine, meperidine, and hydromorphone. Two controls were matched with each case based on similar age, gender, and admission diagnosis. Patients were excluded if they were below the age of 18, were pregnant, or had missing medical records. The characteristics collected for comparison of the two groups were opioid received, body mass index, length of hospital stay, and presence of the following: respiratory disease, obstructive sleep apnea with or without the use of positive airway therapy, patient-controlled analgesia, concomitant sedating agents, renal disease, and hepatic disease.

Results:

Conclusions:

Presentation Objective: List patient-specific risk factors that may contribute over-sedation from opioid therapy. **Self-Assessment:** What are possible patient-specific risk factors that could contribute to over-sedation from opioid therapy?

10:00

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

UTILIZATION OF A NOVEL MEDICATION BARCODE TRACKING SYSTEM TO MEASURE AND IMPROVE THE MEDICATION DISTRIBUTION PROCESS
Jason D. Chou, Nate Peaty, And David Breeze
Wake Forest University Baptist Medical Center - Health System Pharmacy Adm.
Winston Salem, NC

Purpose/Background: Medication turnaround time is defined as the interval that elapses from the time a medication order is generated to the time the medication is administered to a patient. Various studies have been published discussing overall medication turnaround, and pharmacy processing time. Little emphasis, however, has been placed on linking process measurements to measureable performance metrics. The primary objective was to measure on time pharmacy medication delivery at Wake Forest University Medical Center. Secondary objectives included measurement and evaluation of pharmacy process time.

Methodology: This observational study included implementation of a novel medication barcode tracking system. Data from all first dose medications dispensed from the central pharmacy were eligible for tracking through the distribution and delivery process. The performance component of on time delivery was defined as delivered prior to scheduled medication start time for orders generated within three hours of scheduled start, or delivered at least two hours prior to scheduled start time if the order is generated at least three hours prior to scheduled start. Process data were analyzed to identify and prioritize process changes to improve on time medication delivery. Performance data were compared pre and post-intervention to measure for improvement.

Results:

Conclusions:

Presentation Objective: Understand the between process measurement to performance improvement for medication distribution. **Self-Assessment:** Understand the between process measurement to performance improvement for medication distribution.

10:00

OLY 2

ADM

ABSTRACT REPRODUCTION FORM

A DRUG USE EVALUATION & RETROSPECTIVE REVIEW OF AMIODARONE TOXICITY MONITORING AT VA GULF COAST VETERANS HEALTH CARE SYSTEM
Robert Hamilton, Shannon Smith
VA Gulf Coast Joint Ambulatory Care Center - Pensacola, FL

Purpose/Background: Amiodarone is commonly prescribed for management of atrial fibrillation or other arrhythmias. However, monitoring requirements for chronic use are numerous and complex. The study purpose was to evaluate amiodarone use and current monitoring practices at the VA Gulf Coast Veterans Health Care System, focusing on adherence to published monitoring guidelines with additional assessment of amiodarone-related adverse patient outcomes. Results will be used to provide a baseline from which a standardized monitoring strategy may be developed and compared, with the ultimate goal of improving quality of care and long-term outcomes for patients treated with amiodarone.

Methodology: The study is a retrospective electronic chart review of Gulf Coast VA Veterans who received an outpatient prescription for amiodarone between August 1, 2009 and July 31, 2010 and who were also determined by refill history or visit notes to be on chronic amiodarone therapy (greater than 6 months). Assessment parameters included ECG, TFTs, LFTs, CXR, PFTs, ophthalmological examination, and follow-up clinic visits, along with selected interacting medications (warfarin, digoxin, and statins) and specific outcome data (documented amiodarone-associated adverse events, hospitalizations, or ER visits, and amiodarone discontinuations).

Results:

Conclusions:

Presentation Objective: List important amiodarone toxicities and consensus recommendations for monitoring. **Self-Assessment:** How frequently should liver function tests be monitored in patients receiving chronic amiodarone therapy?

10:00

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

PHARMACIST S IMPACT ON IMPROVING OUTCOMES IN PATIENTS WITH TYPE 2 DIABETES MELLITUS
Matthew J. Pepper, Natohya Henry, Tracy N. Coker, Amber Chaki
Shands Jacksonville Department Of Pharmacy - PGY1 - Jacksonville, FL

Purpose/Background: Diabetes is a complex disease that requires continuous monitoring for proper management. A health care team is often involved over many clinic visits to make interventions on medications, self-monitoring by the patient, diet and exercise. The purpose of the study was to assess the clinical benefits for patients with type 2 diabetes in pharmacist managed diabetes clinics compared to non-pharmacist managed diabetes clinics at Shands Jacksonville Medical Center.

Methodology: This was a retrospective, observational, single center study. Patients with diabetes were identified through ICD-9 codes. The patients were stratified into either the pharmacist group, which included a clinical pharmacist as a part of the team, or the physician group, which did not include a clinical pharmacist as a part of the team. The primary endpoint was percent change in hemoglobin A1C. Secondary endpoints included percent change and the number of patients to reach goals established by the American Diabetes Association (ADA) in LDL, HDL, triglycerides, and blood pressure. The number of patients to reach ADA goals and the percent change of the endpoint were evaluated for pharmacist managed clinics and compared to clinics without a pharmacist managed diabetes program.

Results:

Conclusions:

Presentation Objective: To demonstrate the pharmacist s role in diabetes management and impact on its outcomes. **Self-Assessment:** In what ways do pharmacists impact outcomes in diabetes?

matthew.pepper@jax.ufl.edu

10:00

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

EVALUATING COST SAVINGS AND BENEFIT UPON IMPLEMENTATION OF AN EMERGENCY DEPARTMENT PHARMACIST AT BAY PINES VAHCS
Nishi Patel, Leigh Ann Wisnieski, Idi Idiong And Trista Wagoner
Bay Pines Va Medical Center - Bay Pines, FL

Purpose/Background: To describe the cost saving upon implementation of a pharmacist in the emergency room at Bay Pines VAHCS.

Methodology: A retrospective review of interventions made by pharmacists from August 2008 to April 2009 will be reviewed to define activities performed by pharmacists in the emergency department. A retrospective review of encounters performed for medication reconciliations and medication counseling from April 2009 to July 2010 will also be reviewed to determine the cost benefit of having a pharmacist in the emergency department.

Results:

Conclusions:

Presentation Objective: List areas of the emergency department where pharmacists are capable of making interventions and have potential for cost savings. **Self-Assessment:** What part of a patient's admission process is there potential for a pharmacist to make an intervention?

10:20

Room A

CCM

ABSTRACT REPRODUCTION FORM

EVALUATION OF CHROMOGENIC FACTOR X ACTIVITY LEVELS TO TRANSITION PATIENTS FROM ARGATROBAN TO WARFARIN
Jennifer Austin; Christopher Paciullo; Candace Stearns
Emory University Healthcare - Atlanta, GA

Purpose/Background: In the transition from intravenous argatroban to oral warfarin therapy, problems arise due to argatroban's prolonging effect on the prothrombin time (PT). PT laboratory values measure the time required for fibrin to appear after the addition of thromboplastin, which is inhibited in the presence of direct thrombin inhibitors (DTI) such as argatroban. Emory Hospitals use the chromogenic factor X (CFX) assay to determine appropriate timing for discontinuation of argatroban in patients receiving concomitant warfarin therapy. This assay directly measures the level of factor X activity expressed as a percentage. Argatroban has little effect on factor X; therefore, the CFX assay may more accurately reflect anticoagulant effects of warfarin therapy as compared to INR measurement in the presence of DTI therapy.

Methodology: This retrospective chart review assesses the efficacy and safety of using the CFX assay in patients transitioning from argatroban to warfarin. Patients admitted to Emory Hospitals receiving argatroban and warfarin monitored with CFX will be included. Patients will be excluded if an INR is not reported 4 to 24 hours after argatroban discontinuation. The primary objective is to determine the correlation between CFX and INR in patients transitioning from argatroban to warfarin in order to confirm its utility. Secondary outcome measures include number of bleeding and thrombotic events during overlap therapy, as well as adherence to current guidelines and institution specific protocol.

Results:

Conclusions:

Presentation Objective: To determine the percentage of factor X activity which correlates to a therapeutic INR. **Self-Assessment:** What CFX level correlates to a therapeutic INR?

10:20

Room B

CCM

ABSTRACT REPRODUCTION FORM

EVALUATION OF OUTPATIENT INTRAVENOUS ANTIBIOTIC USE AND ASSOCIATED OUTCOMES
Bailey Guest; Michael Knauss; Susan Ray
Grady Health System - Atlanta, GA

Purpose/Background: There are multiple complications that can arise from outpatient parenteral antibiotic therapy (OPAT) including adverse drug events, non-therapeutic drug concentrations, and noncompliance with medications or laboratory clinic appointments. Evaluating the outcomes of patients receiving OPAT will help determine the efficacy and safety of an OPAT program.

Methodology: The current study is a retrospective and concurrent observational chart review of patients receiving outpatient intravenous antibiotics to examine patient outcomes as well as the safety and efficacy of the OPAT program at Grady Health System (GHS).

Patients receiving outpatient intravenous antibiotics through GHS from January 1, 2010 through March 30, 2011 will be included in this study. The primary outcome measure is the rate of hospital readmission, and secondary outcome measures include the incidence of adverse effects, the percentage of patients completing therapy, and the percentage of antibiotic trough concentrations within the therapeutic range.

Results: Pending

Conclusions: Pending

Presentation Objective: To describe the potential risks and benefits of an OPAT program

Self-Assessment: Goals for an OPAT program include:

- enable patients to finish medication regimens safely and effectively at home
- reduce the hospital length of stay
- minimize noncompliance with medications or laboratory clinic appointments
- monitoring fo

10:20

Room C

ID

ABSTRACT REPRODUCTION FORM

RELATIONSHIP BETWEEN PRIOR ANTIBIOTIC USE AND INFECTION WITH EXTENDED-SPECTRUM BETA-LACTAMASE PRODUCING BACTERIA
Mary Hencher And John Sheehan
Lake City VAMedical Center - Lake City, FL

Purpose/Background: Based on recent data, the incidence of cultures positive for extended-spectrum beta-lactamase (ESBL) producing bacteria is increasing at the Lake City VA Medical Center. ESBL-producing bacteria exhibit resistance against third- and fourth-generation cephalosporins and in some cases carbapenems. We hypothesize this increase ESBL-producing bacteria may be due to overuse of certain antibiotics. The aim of this study is to answer this question and provide the basis for an antimicrobial surveillance program to address the ESBL problem.

Methodology: The NF/SG Veterans Health System computerized database will be used to identify patients who have had cultures positive for Escherichia coli and Klebsiella spp. between 01/01/01 and 12/31/09. Patients with positive cultures for ESBL-producing bacteria will comprise the study group. Each case will be matched with two controls positive for non-ESBL producing bacteria. The following variables will be reviewed to identify risk factors for the development of ESBL-producing bacteria: use of piperacillin/tazobactam in the previous year, use of third-generation cephalosporins or cefepime in the previous year, age, sex, race, diagnosis of diabetes, history of peptic ulcers, respiratory illness, history of kidney disease, prior transplant, history of cancer, organism cultured, and site of culture.

Results:

Conclusions:

Presentation Objective: Discuss risk factors for the development of ESBL-producing bacteria. **Self-Assessment:** To what antibiotics does ESBL generally grant resistance?

10:20

Room D

ID

ABSTRACT REPRODUCTION FORM

IMPACT OF FOLINIC ACID ADMINISTRATION FOLLOWING METHOTREXATE
GVHD PROPHYLAXIS IN PEDIATRIC HSCT RECIPIENTS
Travis S. Heath, Michelle P. Hudspeth, Dominic Ragucci
Medical University Of South Carolina - Charleston, SC

Purpose/Background: Evaluate the safety and efficacy of folinic acid (FA) rescue following methotrexate (MTX) GVHD prophylaxis in pediatric hematopoietic stem cell transplant (HSCT) recipients.

Methodology: We conducted a retrospective chart review of all pediatric patients who received cyclosporine and short course MTX for GVHD prophylaxis. Patients treated prior to July 2007 did not receive FA and those thereafter did receive FA.

Results: Patients who received FA rescue were significantly more likely to receive day +11 MTX (OR 10.42, 95% CI 1.21-262.27). There was no significant difference in Grade III-IV GVHD between the patients who received FA rescue and those who did not (OR 1.15, 95% CI 0.08-18.14). FA rescue did not impact relapse-free survival (P= 0.82).

Conclusions: FA rescue increased the likelihood of receiving the day +11 MTX, but did not affect the rates of Grade III-IV GVHD. There was also no difference in relapse-free survival to suggest a deleterious effect on disease control. The increased likelihood of receiving day +11 MTX does suggest FA ameliorates MTX toxicity. Folinic acid rescue for short course MTX should be studied in a prospective, randomized fashion.

Presentation Objective: Evaluate the risks and benefits of FA rescue for MTX GVHD prophylaxis in pediatric HSCT patients. **Self-Assessment:** What are the potential risks of FA rescue for MTX GVHD prophylaxis?

10:20

Room G

PED

ABSTRACT REPRODUCTION FORM

RETROSPECTIVE ANALYSIS OF A TARGETED MEDICATION INTERVENTION
PROGRAM CONDUCTED WITHIN A REGIONAL PHARMACY CHAIN
D Petri, N Michaels, L Padgett, S Ferreri, M Marciniak
University Of North Carolina, School Of Pharmacy - Chapel Hill, NC

Purpose/Background: Targeted medication interventions are one aspect of a medication therapy management (MTM) service. Pharmacists can perform these interventions, which are typically specific to a medication or class of medications, while dispensing. This study aims to measure how prompting pharmacists with targeted medications interventions impact the number of MTM claims submitted.

Methodology: This is a retrospective study utilizing claims data from a regional pharmacy chain s MTM program. All claims submitted between June 1, 2010 and October 31, 2010 with a status of approved, paid, or review/resubmit were included. For four of the five months, targeted medication interventions were identified by corporate management and pharmacists were prompted to conduct these interventions; the other month pharmacists were encouraged to complete targeted medication interventions but were not prompted with an intervention. Claims data were obtained from a third party administrator.

Results: A total of 6860 claims were included for data analysis. Preliminary results show that each month an average of 6% of claims submitted were prompted. Throughout the study period, 15% of all claims had been prompted. The most common interventions involved changing or initiating therapy (64.11%), correcting medication administration technique (8.9%), addressing cost concerns (8.59%), and underuse of medications (8.54%).

Conclusions: The use of prompted interventions has a positive effect on a MTM program; influencing the number and types of claims submitted.

Presentation Objective: Describe potential benefits of prompting pharmacists to perform targeted medication interventions. **Self-Assessment:** How does prompting pharmacists to make interventions impact a MTM program?

10:20

Room H

CP

ABSTRACT REPRODUCTION FORM

THE USE OF NORTRIPTYLINE IN POST-ECT PATIENTS GREATER THAN 65 YEARS
OF AGE
Calleen O. Sullivan, Amy M. Vandenberg
Medical University Of South Carolina - Charleston, SC

Purpose/Background: Elderly patients meeting Diagnostic and Statistical Manual for Mental Disorders-IV criteria for Major Depressive Disorder (MDD) may require non-pharmacological treatment in addition to pharmacological treatment. Studies suggest electroconvulsive therapy (ECT) followed by maintenance treatment with nortriptyline is an option for the treatment of unipolar depression in patients under the age of 65. Nortriptyline is in the Beers criteria as a medication that should be avoided in the elderly. This retrospective chart review sought to assess the safety, efficacy, and tolerability of post-ECT nortriptyline maintenance treatment in patients over 65 years of age. Continuation rate of nortriptyline was the primary objective.

Methodology: The Medical University of South Carolina-Institute of Psychiatry is a 100-bed acute care hospital with geriatric and ECT services. Between October 1, 2006 and August 1, 2010, patients over the age of 65 diagnosed with MDD who received ECT and were subsequently started on nortriptyline were included in the study. Data was collected via medical records.

Results: A total of 16 patients (5 male, 11 female) were included. Most patients (93.8%) were caucasian, with a mean age of 75.8 years (range 67-88.) Starting doses of nortriptyline were 10 mg and 25 mg for 7 patients (43.7%) and 9 patients (56.3%), respectively. A baseline EKG was performed on all but one patient. The mean baseline QTc interval was 444.3 ms (range 403-490.)

Conclusions:

Presentation Objective: Understand the limitations associated with nortriptyline use in elderly patients. **Self-Assessment:** Name three potential reasons why nortriptyline may not be well tolerated in elderly patients.

10:20

Room I

PSY

ABSTRACT REPRODUCTION FORM

EVALUATION OF THE HEPARIN PROTOCOL FOR THE TREATMENT OF VENOUS
THROMBOEMBOLISM (VTE) AT A TEACHING HOSPITAL
Victoria Olagbemiro, Teresa Pounds, Pamela Moye, Phillip Owen, Tanna Lim
Atlanta Medical Center - Atlanta, GA

Purpose/Background: In view of the Joint Commission National Patient Safety Goal 3E for anticoagulation therapy, hospitals are required to reduce the likelihood of patient harm associated with the use of these agents. Atlanta Medical Center (AMC) has a weight-based heparin protocol that is used for initiating and/or adjusting the infusion rate based on anti-Xa levels. The purpose of this study is to assess the effectiveness and adherence to the unfractionated heparin (UFH) continuous infusion protocol at AMC. The study will also assess the impact of a pharmacist-monitored anticoagulation service on occurrence of therapy-related adverse events and appropriate use of the protocol.

Methodology: This study is a retrospective chart review of patients with a primary or secondary diagnosis of Venous Thromboembolism (VTE) between September 2008 and September 2010 who were treated with UFH continuous infusion. Effectiveness of therapy is defined as e 90% therapeutic anti-Xa levels within the first 24 hours of therapy and appropriateness is defined as e 90% nursing adherence to the heparin protocol. Target anti-Xa levels will be based on a goal range of 0.3 0.5 units/mL for the low dose protocol or 0.5-0.7 units/mL for the high dose protocol. An adverse event is defined as administration of heparin antidote, occurrence of thromboembolic events or requiring e 2 units of red blood cells.

Results:

Conclusions:

Presentation Objective: Discuss the effectiveness/adherence to a heparin protocol. **Self-Assessment:** What practices have been developed at your institution to ensure the appropriate use of a UFH protocol?

10:20

Room J

IM

ABSTRACT REPRODUCTION FORM

ELEVATED INTERNATIONAL NORMALIZED RATIO: AN EVALUATION OF THE UNDERLYING CAUSES AND ITS MANAGEMENT IN A COMMUNITY HOSPITAL
Thi Cai, Erika Cortes, Radhan Gopalani
Baptist Hospital Of Miami - Miami, FL

Purpose/Background: Warfarin is a frequently prescribed oral anticoagulant associated with significant bleeding complications. Factors that influence the therapeutic effects of warfarin include: drug interactions, age, vitamin K intake, disease states, genetic variations, and herbal products. The Food and Drug Administration's Adverse Event Reporting System has indicated that warfarin is among the top 10 drugs with the largest number of serious adverse event reports submitted in recent decades. At Baptist Hospital, warfarin continues to be one of the leading causes of adverse drug events. The purpose of this study is to determine the incidence of warfarin toxicity in a community hospital and to evaluate the underlying causes and management of elevated International Normalized Ratios (INR).

Methodology: This study is IRB approved. Patients that meet the study criteria will have their charts reviewed prospectively. Patients will be evaluated regularly until the INR is within therapeutic range. The primary outcomes are to determine the incidence of inpatient supratherapeutic INR, the frequency of hospital admissions due to warfarin toxicity, and the incidence of major and minor bleeds due to warfarin therapy. The secondary outcomes include determining the most common causes of elevated INR, the reversal regimens utilized to achieve therapeutic INR levels, and the time to therapeutic INR post warfarin reversal.

Results:

Conclusions:

Presentation Objective: Identify the incidence, underlying causes, and management of warfarin toxicity in a community hospital. **Self-Assessment:** Describe various management strategies for warfarin toxicity

10:20

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

EVALUATION OF THE IMPACT OF CAROUSEL DISPENSING TECHNOLOGY IN A UNIVERSITY HOSPITAL ONCOLOGY PHARMACY SATELLITE
Ian Willoughby, Scott Savage And Stephen Eckel
University Of North Carolina Hospitals PGY1 Pharmacy - Chapel Hill, NC

Purpose/Background: Pharmacy departments are increasingly pressured to reduce expenditures without sacrificing patient care. The utilization of technology is being promoted to improve patient safety while controlling costs. The University of North Carolina Hospitals (UNCH) Department of Pharmacy implemented a carousel within the UNC Cancer Hospital Inpatient Pharmacy (CHIP). This system stores both Investigational Drug Service (IDS) and non-IDS medications within a single carousel. In addition to the potential medication safety benefits, carousels typically include inventory management software, allowing automation of inventory tracking and order placement. Case reports in large inpatient pharmacy settings of carousel implementation suggest decreased medication errors, and improved inventory control and workflow. There are no published data regarding the use of a carousel technology in the satellite setting. This study will investigate the utility of carousel technology in the satellite setting and managing IDS protocols.

Methodology: Average inventory quantity and value, inventory footprint, and stock out / emergency order frequency will be compared before and 2 months after carousel implementation. CHIP staff will complete anonymous surveys pre and post carousel implementation. These surveys will assess, via Likert scale, employee perception of the effect of carousel implementation on inventory management, order process time and accuracy, IDS protocol adherence and workflow.

Results:

Conclusions:

Presentation Objective: Describe the value of carousel implementation within a chemotherapy satellite pharmacy that participates in investigational drug studies. **Self-Assessment:** What potential benefits can carousel technology provide in a satellite pharmacy?

10:20

OLY 2

ADM

ABSTRACT REPRODUCTION FORM

PHARMACIST HYPERTENSIVE INTERVENTION AND TREATMENT CLINIC: A RETROSPECTIVE REVIEW
Christina M. Gomez, Patricia Fernandez-Quevedo, Remberto Rodriguez
Miami VA Healthcare System - Miami, FL

Purpose/Background: The JNC VII Guidelines recommend a BP goal of less than 140/90 mmHg for the majority of patients and less than 130/80 mmHg for patients with chronic kidney disease and/or diabetes. With limited provider appointment availability at the Miami Veterans Affairs Healthcare System, attainment of goal blood pressure in VA patients may be delayed. As a result, the Pharmacist Hypertension Intervention and Treatment (PHIT) Clinic was developed and launched in 2004 to assess patients on a bi-weekly to monthly basis and promptly adjust antihypertensive regimens to achieve target BPs. The purpose of this evaluation is to determine the effectiveness of pharmacist-managed hypertension clinics and standard hypertension management by primary care physicians in attaining blood pressure goals that are consistent with JNC VII guidelines and the Department of Veterans Affairs Performance Measures.

Methodology: A retrospective chart review will be conducted in hypertensive patients enrolled in the Primary Care Red Team Clinic. In order to successfully discharge a patient from the PHIT clinic, two consecutive goal BPs must have been attained. Patient BP profiles at the time of referral, upon discharge, and at next PCP follow-up will be reviewed.

Results:

Conclusions:

Presentation Objective: Determine the effectiveness of standard hypertension management within pharmacist-managed hypertensive clinics to attain BP goals in a timely manner. **Self-Assessment:** What role do pharmacists play in managing patients with hypertension? Contact: Christina.Gomez2@va.gov

10:20

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF DIRECT PATIENT CARE SERVICES IN THE AMBULATORY ONCOLOGY SETTING
Lindsey Elmore And Lisa Edgerton
New Hanover Regional Medical Center PGY2 Amb. Care - Wilmington, NC

Purpose/Background: Pharmacists in our hospital have long been involved in the distribution of medications to ambulatory oncology patients. Here we describe how, in two IRB approved studies, direct patient care services were piloted in the ambulatory oncology setting.

Methodology: This study is conducted in three arms: medication therapy management, patient education, and other patient care services. MTM services are available to North Carolina residents aged 65 years and older who are Medicare Part D recipients. MTM services are submitted for reimbursement, and revenue generated and estimated cost avoidance is tallied.

Novel video and handout patient education materials approved by public relations are available to all clinic patients. To assess change in nursing efforts, time spent on direct patient education and triage phone calls received before and after implementation of patient education materials is measured.

The value of other patient care services will be estimated using CliniDoc®. Cost-benefit analysis combining data from each arm will be conducted.

Results: Sixteen claims have been filed for 8 MTM patients, generating \$520 and offsetting >\$50,300 in costs. Before implementation of novel education materials, nurses dedicated approximately 60 (range 35-85) minutes to direct patient education per new chemotherapy patient.

Other major pharmacy services have included drafting guidelines for the inpatient use of erythropoiesis stimulating agents, and participation in pharmacy and therapeutics oncology subcommittee.

Conclusions:

Presentation Objective: Describe the role of a direct patient care pharmacy services in the ambulatory oncology setting. **Self-Assessment:** Are direct patient care activities in the ambulatory oncology setting limited to oncology related problems?

10:20

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

A RETROSPECTIVE STUDY TO ANALYZE THE EFFECT OF INDIVIDUALIZED CARE PLANS ON NUMBER OF VISITS TO THE ED BY FREQUENT VISITORS
 Anthony Pazanes, Pamela Carter
 Lakeland Regional Medical Center - Lakeland, FL

Purpose/Background: In 2009, Lakeland Regional Medical Center (LRMC) identified frequent visitors to the emergency department with a chief complaint of pain, and began implementing individualized care plans in order to decrease drug diversion, medication errors, cost to the patient, hospital, and insurer, and provide better care. Since this time, 43 patients have been identified and received plans. The rationale of this study was to evaluate this program and determine if creating individualized care plans reduce the number of visits by frequent visitors.

Methodology: The emergency department's list of frequent visitors with chief complaints of pain was used to identify potential subjects. Inclusion criteria were patients with at least four visits per year in 2008 and 2009, and who received interventions between January and September of 2009. Exclusion criteria were patients under the age of 18. Descriptive statistics were used to compare the number of visits by each patient six months before and after their intervention date, and to identify any common demographic criteria.

Results:

Conclusions:

Presentation Objective: The primary objective of this study was to determine whether the implementation of individualized care plans decreased the number of visits to the emergency department by frequent visitors with chief complaints of pain. The secondary objective was to identify **Self-Assessment:** What steps need to be taken to improve the efficacy of individualized plans of care in the Emergency Department?

11:00

Room A

CCM

ABSTRACT REPRODUCTION FORM

EVALUATION OF FIXED-DOSING BENZODIAZEPINE THERAPY IN THE TREATMENT OF ALCOHOL WITHDRAWAL SYNDROME IN A VETERAN POPULATION

Rachel Hanners, Leslie Ochs, Katherine Anderson, Ann Hylton
 James H. Quillen VA Medical Center PGY1 - Mountain Home, TN

Purpose/Background: Alcohol is the most frequently abused drug throughout the world. Alcohol-dependent patients who abruptly discontinue their intake commonly experience symptoms known as alcohol withdrawal syndrome (AWS). Standardizing management of withdrawal by use of an evidence-based treatment guideline will improve patient outcomes and minimize complications. Recent literature recommends symptom-triggered administration of benzodiazepines for AWS. The purpose of this study is to examine the fixed-dosing protocol our hospital currently uses and review outcomes such as level of sedation, length of stay, and adverse events associated with AWS. The results will be used to support the implementation of a patient symptom-triggered guideline.

Methodology: A retrospective chart review of patients admitted to the Mountain Home VAMC from July 1, 2009 to November 30, 2009 with an alcohol-related diagnosis will be conducted. The following measures will be collected: type of benzodiazepine administered, time until first dose of benzodiazepine, total quantity of benzodiazepine, duration of benzodiazepine treatment, length of stay, presence of seizures, benzodiazepine reversal by flumazenil administration, and admission to the intensive care unit.

Results:

Conclusions:

Presentation Objective: To understand the pharmacotherapy of AWS management and the differences between fixed and symptom-triggered benzodiazepine dosing schedules. **Self-Assessment:** What are two disadvantages to using fixed-dosing benzodiazepine therapy for AWS management?

11:00

Room B

CCM

ABSTRACT REPRODUCTION FORM

EVALUATING METRICS ASSOCIATED WITH AN ANTIMICROBIAL MANAGEMENT TEAM AT A LARGE COMMUNITY-TEACHING HEALTH SYSTEM
 Edward Eiland, Jonathan Edwards, Mickala Thompson, Daniel Brackin, Et Al.
 Huntsville Hospital - Huntsville, AL

Purpose/Background: Analyze the effectiveness of an antimicrobial management team (AMT) pilot program

Methodology: The pilot program was initiated in three inpatient care units including critical and non-critical care. It involved a team of pharmacists and physicians specializing in infectious diseases. The AMT recommended and initiated patient-specific therapeutic interventions based upon medical record review with focus specifically targeted on antimicrobial use. Data regarding acceptance rates, financial impact, total antibiotic days and costs as well as microbial culture and sensitivity data from the pilot period is compared to pre-pilot data to determine what beneficial impact, if any, the AMT had on these metrics.

Results: The Huntsville Hospital System ecology remained consistent when comparing the 2009 to the 2010 antibiogram. The total drug expenditure for anti-infectives has decreased since AMT implementation. There has been a 21% decrease in the antibiotic cost per adjusted discharge which correlates to a \$1.34M decrease from the previous fiscal year.

Conclusions: Early financial and ecological data show a net benefit from AMT implementation and that the costs associated with staff and resources to continue this program are offset by the substantial cost savings and cost avoidance it can achieve. In addition, the AMT has been successful in influencing prescribing practices in areas outside of the pilot area, which serves to greatly expand the benefits associated with maintaining this service.

Presentation Objective: Discuss benefits of implementing an AMT. **Self-Assessment:** What are three elements of antimicrobial stewardship that an AMT can address?

11:00

Room C

ID

ABSTRACT REPRODUCTION FORM

PROSPECTIVE EVALUATION OF PROLONGED EMPIRIC ANTIMICROBIAL UTILIZATION IN THE INTENSIVE CARE UNIT AT A TEACHING INSTITUTION
 Bionca S. Williams, Phillip Owen, Pamela Moye, Teresa Pounds, Louis Lovett
 Atlanta Medical Center - Atlanta, GA

Purpose/Background: Atlanta Medical Center (AMC) is a teaching institution with a forty-nine bed intensive care unit (ICU) comprised of trauma, medical, and neurosurgical patients. The primary aim of the study is to identify the prevalence of prolonged empiric antimicrobial therapy in the adult critically ill population at AMC. Secondary aims include assessment of inpatient morbidity; pharmaco-economic impact of prolonged empiric antimicrobial therapy; institutional adherence to Center of Disease Control and Prevention Diagnostic Criteria for Site Specific Infections; and prescriber compliance with AMC's antimicrobial order form policy.

Methodology: A prospective, observational study was conducted on patients ≥ 18 years in AMC's ICUs on prolonged empiric antimicrobial therapy, defined as targeted antimicrobial therapies (i.e., piperacillin/tazobactam, meropenem, vancomycin, voriconazole, micafungin, linezolid, daptomycin, tigecycline, clindamycin, ampicillin, levofloxacin, gentamicin, ceftriaxone, azithromycin, and metronidazole) for ≥ 72 hours during the months of October 2010-February 2011. Pediatric patients and non-critically ill patients were excluded. On study day 1, patients on targeted antimicrobial therapy were characterized as definitive, prophylaxis, and/or empiric based on data collected from the medical chart. Patients on empiric therapy on study day 1 were re-evaluated 72 hours later on study day 2 to assess for prolonged empiric antimicrobial therapy.

Results:

Conclusions:

Presentation Objective: Review the prevalence of prolonged empiric antimicrobial therapy at a teaching institution. **Self-Assessment:** What impact has the development of an antimicrobial stewardship team had on antimicrobial use at your institution?

11:00

Room D

ID

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

DAPTOMYCIN TREATMENT OUTCOMES IN THE SETTING OF HIGH RISK FEBRILE NEUTROPENIA AT DUKE UNIVERSITY HOSPITAL

Melissa C. Mackey, Julia M. Hammond
Duke University Hospital - PGY1 - Durham, NC

Purpose/Background: Febrile neutropenia remains one of the most significant complications of treatment for patients with hematologic malignancies. Historically, gram-negative bacteria had been responsible for up to 70% of documented infections in these patients, but more recently, there has been a shift with gram-positive bacteria now being most prevalent. These organisms are often gram-positive cocci, including enterococci, many of which are vancomycin-resistant. Daptomycin is FDA-approved for treatment of both methicillin-susceptible and methicillin resistant gram-positive bacteria. There are no published studies characterizing outcomes of daptomycin use in patients with hematologic malignancies. The purpose of this study is to characterize daptomycin treatment outcomes in patients with febrile neutropenia on a hematologic malignancies service at Duke University Hospital.

Methodology: This is a single-site, retrospective review of patients treated between January 2004 to December 2010. Patients were selected if they received at least 72 hours of daptomycin therapy in the setting of fever and neutropenia. The primary endpoint is the percentage of patients who achieve clinical response to daptomycin therapy. Secondary objectives include description of the patient population that has received daptomycin, determination of the mean dose and treatment duration, and comparison of these results to those reported in the literature.

Results:

Conclusions:

Presentation Objective: To characterize treatment outcomes of daptomycin use in patients with febrile neutropenia on a hematologic malignancies service at Duke University Hospital.

Self-Assessment: Is daptomycin an effective therapy option for patients with hematologic malignancies and febrile neutropenia?

11:00

Room G

ONC

PHARMACOKINETIC ANALYSIS OF PIPERACILLIN/TAZOBACTAM IN THE MORBIDLY OBESE SURGICAL INTENSIVE CARE UNIT PATIENT

Ashley W. Sturm, Nichole Allen, Kelly Rafferty
Pitt County Memorial Hospital - Greenville, NC

Purpose/Background: The purpose of this study is to determine baseline pharmacokinetic and pharmacodynamic parameters of piperacillin/tazobactam in morbidly obese surgical intensive care unit patients. Studies involving hospitalized infected morbidly obese patients and efficacy of antibiotic dosing are limited. Concern exists regarding the potential inability of standard dosing of piperacillin/tazobactam in this patient population to achieve desired percentage of time greater than minimum inhibitory concentration for severe infections.

Methodology: This study is a single center, open label, nonrandomized, prospective trial including morbidly obese patients (BMI ≥ 40.0 kg/m²) admitted to Pitt County Memorial Hospital's trauma and surgical critical care service.

Once informed consent is obtained, a patient is started on piperacillin/tazobactam 4.5 grams intravenous every 6 hours with a 30 minute infusion. Blood samples were taken at a steady-state dose at times 0, 0.5, 2 and 4 hours after the start of the infusion. Blood samples were centrifuged and then drug serum concentrations were obtained. Serum sample concentrations of piperacillin/tazobactam were used in population pharmacokinetic analysis to determine half-life, volume of distribution, clearance, area under the curve, and percentage of time greater than minimum inhibitory concentration.

Results:

Conclusions:

Presentation Objective: Provide insight on appropriate dosing of piperacillin/tazobactam in hospitalized morbidly obese patients through pharmacokinetic and pharmacodynamic analysis.

Self-Assessment: Is piperacillin/tazobactam a concentration-dependent or time-dependent antibiotic?

11:00

Room H

CLPK

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

EVALUATION OF SOLID ORGAN TRANSPLANT RECIPIENT READMISSIONS: POTENTIAL OPPORTUNITIES FOR PHARMACIST INTERVENTION

Jacob Holler, Stephen Eckel, Jennifer Deyo, And Robert Dupuis
University Of North Carolina Hospitals PGY1 Pharmacy - Chapel Hill, NC

Purpose/Background: With increasing long-term survival rates in the solid organ transplant population, management of these patients must involve vigilance across the continuum of care. To date, many studies have evaluated immune and nonimmune complications that arise from solid organ transplantation. However, only two have investigated the resulting readmission rates. Both of these studies included only heart transplant recipient readmissions and did not evaluate whether or not readmissions were preventable.

The purpose of this study is to describe the rate of rehospitalizations in the solid organ transplant population. Reason for readmission will then be classified as preventable or not preventable through outpatient pharmacist intervention.

Methodology: A retrospective chart review will be performed using the TransChart system at University of North Carolina Hospital. Patients included will be those who received a solid organ transplant two years prior to the initiation of the investigation. Data will be collected up to one year from the date of transplant. Using medication record number, the age, gender, and ethnicity will be recorded. Transplant data will include organ(s) transplanted, donor type, procedure date, and discharge date. Readmission data will include reason for readmission, date of readmission, date of discharge, and length of stay.

Results:

Conclusions:

Presentation Objective: Identify reasons for transplant recipient readmissions that could be considered preventable through pharmacist intervention. **Self-Assessment:** Which of the following reasons for readmission could be considered preventable through pharmacist intervention?

- Gastrostomy tube stoma closure
- Upper extremity deep vein thrombosis
- Acute rejection
- Incisional hernia

11:00

Room I

TRP

PREVENTION OF CONTRAST-INDUCED NEPHROPATHY WITH N-ACETYLCYSTEINE PLUS SODIUM BICARBONATE OR SALINE HYDRATION

Laura Blackburn, Marci Delossantos, Stephen Tan, Donald Johnson
Shands Jacksonville Department Of Pharmacy - PGY1 - Jacksonville, FL

Purpose/Background: Contrast-induced nephropathy is the third leading cause of acute renal failure accounting for approximately 11% of all hospital-acquired renal failure. Development of acute kidney failure is associated with longer hospitalizations and higher in-hospital mortality. There are several contributing elements to the development of contrast-induced nephropathy including direct toxicity to the renal tubular epithelium and also regional hypoxia via renal vasoconstriction. Use of low/iso-osmolar contrast media, saline hydration, N-acetylcysteine and sodium bicarbonate are all current prevention strategies. The purpose of the study is to determine if using sodium bicarbonate in conjunction with N-acetylcysteine is more effective than normal saline hydration with N-acetylcysteine in preventing contrast-induced nephropathy in patients with renal insufficiency.

Methodology: This study is an IRB approved observational, retrospective review of admitted patients age ≥ 18 years who have undergone an intravenous contrast procedure and received at least two doses of N-acetylcysteine with either sodium bicarbonate infusion or saline hydration. Serum creatinine or urine output is used to determine which patients experienced contrast-induced nephropathy between 24 and 72 hours post-contrast media. Secondary objectives evaluated include effect of concomitant nephrotoxic medications, acute anuric renal failure and incidence according to risk stratification.

Results:

Conclusions:

Presentation Objective: Evaluate the efficacy of medications in the prevention of contrast-induced nephropathy. **Self-Assessment:** What are some risk factors associated with increased risk of contrast-induced nephropathy? Choose all that apply.

- Increased age
- Chronic anemia
- Peripheral vascular disease
- Chronic renal insufficiency
- Diabetes mellitus

11:00

Room J

IM

ABSTRACT REPRODUCTION FORM

DEVELOPMENT AND EVALUATION OF AN ANTIDIABETIC MEDICATION TRAINING MANUAL FOR PHARMACISTS AT UAB HOSPITAL
Robert Mills, Aaron Jones, Carlos Arguello, Carol Waldrop
University Of Alabama Hospital - Birmingham - Birmingham, AL

Purpose/Background: The purpose of the project is to assess current diabetic therapy knowledge of UAB Hospital s pharmacists and develop a standardized training document for pharmacists in order to improve patient care at UAB Hospital.

Methodology: Eligible participants are all pharmacists employed at UAB Hospital. Training material was developed utilizing the most current literature and resources in diabetes care by a multidisciplinary team. A twenty question multiple-choice exam was developed using the training material and will be administered via the pharmacy s intranet website. After the exam, the training material will be posted for the pharmacists to review the material. Two weeks from posting the material the original exam will be re-administered. Assessment of the results will be undertaken to evaluate the effectiveness of the training material and pharmacist s knowledge of diabetic therapy. The institution s medication misadventure reporting system will also be utilized to track medication error reports on a monthly basis prior to and following the release of the training material.

Results:

Conclusions:

Presentation Objective: To describe the importance of standardized diabetes training among pharmacists. **Self-Assessment:** Does standardized diabetes training improve patient care as indicated by an increase in reported medication errors?

11:00

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF THE ESA APPRISE ONCOLOGY PROGRAM AT A TERTIARY HOSPITAL
Matthew Eklund, Kelly Crowley
Medical University Of South Carolina - Charleston, SC

Purpose/Background: The U.S. Food and Drug Administration approved a risk evaluation and mitigation strategy (REMS) titled ESA APPRISE Oncology Program in order to ensure the safe use of erythropoiesis-stimulating agents (ESAs). All hospitals that use ESAs for anemia due to concomitant myelosuppressive chemotherapy must follow specific program requirements of the ESA APPRISE Oncology Program which include completing a healthcare provider and patient acknowledgement form, healthcare provider enrollment and hospital enrollment in the program. Failure to comply with these requirements will result in suspension of the hospital s access to ESAs.

Methodology: A gap analysis was performed to identify the necessary action needed to meet the requirements of the ESA APPRISE Oncology Program. A process was developed to limit administrative burden while meeting the program s requirements. Evaluation of compliance will be performed every 2 weeks for 2 months from the start of the program and will be assessed using the medication processing software Horizon Medication Manager.

Results: Implementation of the ESA APPRISE Oncology Program occurred on February 16, 2011. ESA order forms were designed to assist healthcare providers in determining the necessary actions regarding the program. Order forms were developed for outpatient clinics and an order template for the computerized physician order entry software utilized in the inpatient setting. Evaluation of prescriber compliance is pending.

Conclusions:

Presentation Objective: Identify the appropriate changes necessary to meet the requirements of the ESA APPRISE Oncology Program at MUSC. **Self-Assessment:** What are the requirements of the ESA APPRISE Oncology Program?

11:00

OLY 2

ADM

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION AND ASSESSMENT OF MEDICATION THERAPY MANAGEMENT SERVICES PROVIDED BY CLINICAL PHARMACISTS IN INTERNAL MEDICINE
Patrick Gregory, Jenna Huggins, Ryan Tabis
Wakemed Health & Hospitals - Raleigh, NC

Purpose/Background: Medication therapy management (MTM) services are being provided throughout the country in a variety of settings, most commonly in community pharmacies. However, providing these services within a clinic setting may be advantageous, given the direct access to providers and medical records. The purpose of this study is to implement MTM services in community hospital-affiliated internal medicine clinics (Phase I) and assess the impact on patients and providers (Phase II).

Methodology: Planning to incorporate MTM services began in September 2010 and this included recruitment of inpatient clinical pharmacists, incorporating these pharmacists into clinic workflow, and setting up a pilot program to evaluate services that would be beneficial to providers. Phase II of this project will retrospectively evaluate patients and their disease states that pharmacists have assessed to determine the impact on disease state management through MTM services provided and provider/patient satisfaction.

Results: Currently, various MTM services are being provided by five different pharmacists in the clinics on either a once weekly or once biweekly basis. The pilot is still ongoing and data collection is pending IRB approval.

Conclusions:

Presentation Objective: Discuss steps necessary to implement MTM services within a physician clinic. **Self-Assessment:** What is one advantage of providing MTM services in a clinic setting?

11:00

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

EVALUATION OF THE INCIDENCE OF MUSCLE INJURY WITH THE USE OF SIMVASTATIN IN A VETERAN POPULATION
Maggie Elalayli, Adam Clark
N.Florida/S. Georgia Va Health System - Gainesville, FL

Purpose/Background: Current North Florida/South Georgia (NF/SG) VA policy requires patients try and fail maximum dose of simvastatin before a more potent statin is approved for use. The FDA recently issued a warning stating that high dose simvastatin is related to an increase in muscle injury. The objective of this study is to evaluate the incidence of muscle injury with the use of simvastatin in our veteran population. Secondly, an evaluation of dose escalation on the incidence of muscle injury will be conducted. Finally, concomitant use of other lipid lowering medications will also be considered.

Methodology: We plan to retrospectively identify veterans in the North Florida/South Georgia (NF/SG) region of the Veterans Integrated Service Network (VISN 8) who were on simvastatin and have a muscle-related allergy/ADR between September 1, 2005 and September 1, 2010. Inclusion criteria: male/female, >18 years of age and reported allergy/ADR to simvastatin. Exclusion criteria: no reported allergy/ADR to simvastatin. Data from patient charts will be analyzed to determine the percentage of patients with an adverse drug reaction to simvastatin for different doses. Other lipid lowering medications will also be noted as concomitant use may increase risk of muscle injury.

Results:

Conclusions:

Presentation Objective: To determine the risk involved with the use of simvastatin in our veteran population. **Self-Assessment:** Is the incidence of muscle injury to simvastatin dose related?

11:00

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

VALIDATION OF A PRE-EXISTING FORMULA TO CALCULATE THE CONTRIBUTION OF ETHANOL TO THE OSMOLAR GAP

Alexander Garrard, Thomas Kunisaki, Dawn Sollee, Ryan Butterfield Et Al.
Florida Poison Information Center @ Shands Jacksonville - Jacksonville, FL

Purpose/Background: This study aims to validate the formula derived by Pursell and clarify which cofactor to use when accounting for ethanol in the osmolar gap calculation. Osmolar gaps can help diagnose toxic alcohol poisoning when these levels are unavailable.

Methodology: Part I was a retrospective review of 604 ED patients who had a concurrent ethanol, basic metabolic panel, and a serum osmolality. Predicted osmolality excluding ethanol was calculated using the following formula: $2\text{Na}(\text{mEq/L})+(\text{BUN}[\text{mg/dL}]/2.8)+(\text{Glucose}[\text{mg/dL}]/18)$. The osmolar gap was determined by subtracting calculated osmolality from the measured osmolality. Linear regression was used to evaluate the relationship between osmolar gap and ethanol level. In Part II, this experiment was duplicated by adding predetermined amounts of ethanol to serum.

Results: We had 604 patients in Part I from which we derived a formula to calculate the contribution of ethanol to the osmolar gap. The mean ethanol level was 182.54mg/dL. Our data had a strong linear relationship with a Pearson coefficient of correlation of 0.93 and r^2 value of 0.96. The derived linear regression equation was $\text{Osmolar gap} = (\text{Ethanol}[\text{mg/dL}])/3.96$. The formula for linear regression derived from Part II was $\text{Osmolar gap} = (\text{Ethanol}[\text{mg/dL}])/3.85$ with a Pearson coefficient of $r = .98$, $p\text{-val} < 0.001$ and r^2 of 0.99.

Conclusions: Our study suggests a more accurate equation for calculating ethanol's contribution to the osmolar gap is: $\text{Ethanol}(\text{mg/dL})/3.96$.

Presentation Objective: Describe how to calculate the osmolar gap and the impact of ethanol on its derivation. **Self-Assessment:** What factor does the most recent data suggest is a better fit?

11:20

Room A

CCM

ABSTRACT REPRODUCTION FORM

EVALUATION OF EXPANDING EMERGENCY MEDICINE PHARMACIST SERVICES IN A COMMUNITY BASED HOSPITAL'S EMERGENCY DEPARTMENT

Jennifer Holser, William Terneus Jr., Theresa Urban, Robb Mcgory
Indian River Medical Center - Vero Beach, FL

Purpose/Background: The value of pharmacy services in the emergency department (ED) has been well documented. Economic hardships and loss of insurance have increased delivery of primary care by ED clinicians. This increase in visits and decline in reimbursement presents an opportunity to expand pharmacy services and decrease economic loss.

The study evaluates current ED pharmacist services and to determine the benefit (including economic impact) of expanding pharmacy services within IRMC's emergency department.

Methodology: Patients with MSDRG codes: sepsis, TIA and pneumonia, were included in this study. The ED pharmacist provided patient care and documented interventions electronically during February 2011 on days Monday through Thursday from 1100 to 1900. Interventions included: medication reconciliation, drug information, therapeutic recommendation, code blue participation, therapy initiation, order clarification, ADR prevention, drug identification, nursing education, therapeutic drug monitoring, IV to PO switch, drug allergy identification, proper antibiotic selection, formulary substitution, drug interaction prevention and patient education. After February, the resident ranked the top three interventions and compared these interventions to patients with the same diagnosis via chart review when pharmacy services are absent Friday through Sunday from 1100 to 1900. These two comparisons then assessed the benefit (including economic impact) of expanding pharmacist coverage within the ED to seven days a week.

Results:

Conclusions:

Presentation Objective: To analyze benefits of expanding pharmacy services within the emergency department. **Self-Assessment:** What is a common intervention a pharmacist may make within the emergency department that creates a substantial impact on patient care then and in the future?

11:20

Room B

CCM

ABSTRACT REPRODUCTION FORM

TARGETING CLOSTRIDIUM DIFFICILE INFECTION: ANTIMICROBIAL STEWARDSHIP EFFORTS OF A COMMUNITY HOSPITAL

Mona Benrashed
Caromont Health - Gastonia, NC

Purpose/Background: Clostridium difficile is the most common cause of nosocomial diarrhea, and is responsible for 20 to 30 percent of cases of antibiotic associated diarrhea. Clostridium difficile infection (CDI) is estimated to cost the healthcare system an excess of 3.2 billion dollars per year. Antimicrobial stewardship efforts at a community hospital have targeted appropriate antimicrobial selection, with the creation of a restricted antimicrobials list.

Methodology: In collaboration with the Antimicrobial Stewardship Committee, retrospective chart reviews were performed on all patients with CDI classified as continuation of infection or recurrent infection. Additionally, rate of CDI was determined in a group of patients with pneumonia selected based on antibiotic usage and duration.

Results:

Conclusions:

Presentation Objective: 1. Review pathophysiology and risk factors for Clostridium difficile infection (CDI)

2. Summarize current treatment guidelines for CDI

3. Evaluate results of a Medication Use Evaluation (MUE) targeting patients with continued/recurrent CDI

4. Examine r **Self-Assessment:** Which of the following elements may aid in the reduction of C.difficile infection?

A. Proper contact precautions

B. Ensuring appropriate treatment of recurrent cases

C. Antimicrobial restriction

D. All of the above

11:20

Room C

ID

ABSTRACT REPRODUCTION FORM

DAPTOMYCIN: A RETROSPECTIVE AND PROSPECTIVE REVIEW OF DAPTOMYCIN USE AT BAPTIST HOSPITAL OF MIAMI

Marlene Delavalle; Heidi Clarke; Jorge Garcia; Radhan Gopalani
Baptist Hospital Of Miami - Miami, FL

Purpose/Background: Daptomycin (Cubicin®) is a concentration-dependent cyclic lipopeptide antibiotic; it binds to bacterial membranes and causes rapid depolarization of membrane potential resulting in bacterial cell death. It is FDA approved for the treatment of complicated skin and soft tissue infections, Staphylococcus aureus bacteremia including those with right-sided infective endocarditis. There is growing concern of daptomycin resistance leading to therapeutic failure. Overutilization of daptomycin is a concern for emerging resistance and for drug cost. The purpose of this study is to evaluate daptomycin prescribing patterns and optimize the use of daptomycin by ensuring compliance with the approved criteria for its use.

Methodology: This study is IRB approved. A randomized, retrospective chart review of 75 patients prescribed daptomycin from July 2009 to June 2010 was conducted followed by a randomized, prospective review of the first 75 patients prescribed daptomycin. The primary endpoint is compliance with the prescribing criteria in the patients reviewed retrospectively versus those reviewed prospectively. The secondary endpoints are to assess the number of interventions accepted including: changes in therapy due to MEC criteria, changes in therapy due to adverse drug effects, changes in dose, recommendations for laboratory monitoring, and cost-savings.

Results:

Conclusions:

Presentation Objective: Recognize the appropriate use of daptomycin and methods to optimize its use **Self-Assessment:** Daptomycin can be used empirically in which of the FDA-approved indications?

11:20

Room D

ID

ABSTRACT REPRODUCTION FORM

EVALUATION OF THE USE AND REMISSION RATES FOR CLOFARABINE COMPARED TO STANDARD INDUCTION IN ADULT PATIENTS WITH AML.

J. Ryan Shaw, Julia M. Hammond
Duke University Hospital PGY2 Oncology - Durham, NC

Purpose/Background: Annually, acute myeloid leukemia (AML) contributes the highest number of leukemia related deaths in the United States. There is ongoing interest in novel therapies to improve remission rates in AML. Clofarabine has been investigated and is endorsed by the National Comprehensive Cancer Network (NCCN) as an intermediate intensity treatment for AML.

Methodology: This is a retrospective, IRB-approved, non-inferiority analysis of adult patients receiving clofarabine based chemotherapy or standard induction with seven day continuous infusion cytarabine plus three day bolus daunorubicin, idarubicin, or mitoxantrone for AML between March 2009 and November 2010 at Duke University Hospital. Patients were excluded if enrolled in clinical trials. The primary objective compares the remission rates between groups. Secondary objectives compare clofarabine use to NCCN recommendations, assess the tolerability of clofarabine, and analyze the cost of clofarabine use.

Results: Preliminary data identified 22 patients receiving induction with clofarabine based chemotherapy. The overall remission rate was 27% (n=6). Seventeen patients received previous chemotherapy and only 2 achieved a remission with clofarabine (12%). The most common side effects were febrile neutropenia, diarrhea, dermatologic reactions, and liver function test changes.

Conclusions: Preliminary results suggest the use of clofarabine has focused on heavily pretreated patients. The most promising results from this small data set were for previously untreated patients. However, the standard induction comparator group has yet to be evaluated.

Presentation Objective: Describe potential uses of clofarabine in adult patients with AML.

Self-Assessment: What are the most common side effects associated with clofarabine?

11:20

Room G

ONC

ABSTRACT REPRODUCTION FORM

PHARMACIST VERSUS PRESCRIBER MANAGED DOSING AND MONITORING OF INTRAVENOUS VANCOMYCIN

Jenny Parnell, Jeannie Watson, & Kelly Delaney
St. Thomas Hospital - Nashville, TN

Purpose/Background: ASHP, IDSA and Society of Infectious Diseases Pharmacists consensus statement for intravenous vancomycin has issued recommendations regarding dosing, monitoring, and vancomycin trough concentrations. At Saint Thomas Hospital, pharmacists monitor all vancomycin orders daily. Prescribers may consult pharmacists to dose and monitor vancomycin, and if not consulted, recommendations are provided for therapy modification when required.

Methodology: A retrospective chart review of all vancomycin orders from May 1, 2010 through November 30, 2010 was performed. Patients e 18 years of age were included if e 4 doses of vancomycin therapy was given and trough concentrations were ordered. Exclusion criteria included: < 4 doses of vancomycin on the same regimen, a post-operative course of vancomycin, unclear indication, e 4 doses of vancomycin with no trough concentration ordered, repeat vancomycin trough concentrations on the same regimen, or patients receiving hemodialysis. Outcome measures of the study are: percentage of troughs in range by pharmacists and prescribers, percentage of initial vancomycin regimens based on 15 mg/kg/dose, percentage of initial vancomycin regimens decreased based on renal function, percentage of troughs ordered appropriately, and percentage of doses changed based on vancomycin trough concentration(s).

Results:

Conclusions:

Presentation Objective: To evaluate pharmacists and prescribers dosing of vancomycin based on indication for therapy, renal function, monitoring of vancomycin trough concentrations, and dose adjustments based on vancomycin trough concentrations. **Self-Assessment:** What is the potential impact of pharmacists dosing and managing all vancomycin regimens at Saint Thomas Hospital?

11:20

Room H

CLPK

ABSTRACT REPRODUCTION FORM

EVALUATE THE IMPACT OF CLINICAL PHARMACY SERVICES PROVIDED FOR SOLID ORGAN TRANSPLANT PATIENTS AT ORLANDO VA MEDICAL CENTER

Jennifer Carrillo, Kim L. Edmonds-Rogers, Kimberly R. Schnacky
Orlando VAMedical Center - Orlando, FL

Purpose/Background: Veterans Affairs Medical Centers that perform transplant surgeries and provide post-transplant management have multidisciplinary teams to care for solid organ transplant patients. These multidisciplinary teams consist of, but are not limited to, nurse practitioners, physicians, clinical pharmacists, social workers, and/or nurse coordinators that collaboratively manage the care of these patients. The Orlando VA Medical Center currently provides post-transplant care to more than 100 solid organ transplant patients, and this population is expected to increase. Our current transplant care model does not include dedicated clinical pharmacy services. Because of this, a performance quality improvement project was initiated to identify the impact of clinical pharmacy services on the post-transplant management of solid organ transplant patients.

Methodology: Clinical pharmacy services will be provided for an eight week period to include medication reconciliation, pharmacotherapy review, and therapeutic drug monitoring. Possible interventions include dose appropriateness, therapeutic duplications, disease state management, drug interactions, etc. Interventions will be documented and categorized to: accepted, rejected, or not acted upon. Descriptive statistics will be utilized to analyze the outcomes. The number of effective interventions will be reviewed and utilized as surrogate markers to improve the care of solid organ transplant patients in the future establishment of a multidisciplinary team at the Orlando VA Medical Center.

Results:

Conclusions:

Presentation Objective: Demonstrate the impact and identify interventions made by clinical pharmacy services in the post-transplant management of solid organ transplant patients. **Self-Assessment:** What were commonly accepted interventions? Is there a benefit to providing clinical pharmacy services to post-transplant patients?

11:20

Room I

TRP

ABSTRACT REPRODUCTION FORM

EVALUATION OF APPROPRIATE SEROLOGICAL TESTING FOR SUSPECTED HEPARIN-INDUCED THROMBOCYTOPENIA IN HOSPITALIZED PATIENTS

Donald Floresca, Lori Dupree, Sharon Basile, Paul Tan
Shands Jacksonville Department Of Pharmacy - PGY1 - Jacksonville, FL

Purpose/Background: Heparin-induced thrombocytopenia (HIT) is an immune-mediated adverse response to heparin treatment that results in an increased risk for thrombosis. The 4T test is a scoring system that can be performed before serological testing for suspected HIT. Literature suggests that this scoring system has as high as a 100% negative predictive value in ruling out HIT. The purpose of this study is to assess the predictive value for HIT of the 4T scoring system compared to the serological test results. Additionally, appropriate management of suspected HIT will be evaluated.

Methodology: This study will be conducted as an IRB-approved retrospective chart review. Data will be collected on all patients on whom HIT-antibody tests have been performed from June 2008 to June 2010. The 4T scoring test will be retrospectively applied to each patient. Each patient will be stratified into low, intermediate, and high probabilities of having HIT. Serologic test results will then be reviewed to see what percentage of patients in each risk group had positive and negative results. Statistical tests will be performed to detect any difference between positive and negative serologic tests. Appropriate management of patients with suspected HIT will also be evaluated for secondary endpoints by assessing the following: renal function, hepatic function, and patient allergy information.

Results:

Conclusions:

Presentation Objective: Assess the predictive value for HIT by comparing the results of the 4T scoring system and serological testing. **Self-Assessment:** Given the associated risk and cost, how can pharmacists impact the medical management of heparin-induced thrombocytopenia?

11:20

Room J

IM

ABSTRACT REPRODUCTION FORM

THE ROLE OF A COMPUTERIZED EPIDURAL ORDERING ADVISOR ON REDUCING CONCOMITANT INAPPROPRIATE MEDICATION ADMINISTRATION

Jonathon Pouliot, Erin Neal, Bob Lobo
Vanderbilt University Medical Center - Nashville, TN

Purpose/Background: Continuous epidural anesthesia therapy is commonly used for pain management, particularly during the perioperative and postoperative periods. Epidural administration of drugs puts patients at risk for complications, the most serious being bleeding complications which could cause irreversible neurologic damage. A major risk factor for this complication is administration of contraindicated or high risk anticoagulant medications. In order to decrease the administration of contraindicated and inappropriate medications as well as standardize epidural ordering facility-wide, an electronic epidural ordering advisor has been implemented at Vanderbilt University Medical Center. The purpose of this study is to evaluate the effectiveness of this advisor at reducing occurrences of inappropriate medication administration as well as reducing complications of therapy.

Methodology: This study will examine high risk medication administration before and after advisor implementation. This study will also evaluate some common adverse events and complications of epidural therapy including respiratory depression, excessive sedation, and hypotensive events.

Results: In the period prior to implementation, contraindicated medications were administered in 29/203 cases (14.3%). Of these instances, promethazine and enoxaparin were administered in 10.8% and 3.4% of cases, respectively. Respiratory depression occurred in 8 cases, hypotensive events in 48 cases, and naloxone reversal in 5 cases.

Conclusions:

Presentation Objective: To understand the risk associated with concomitant medication administration during epidural therapy. **Self-Assessment:** Does the use of electronic physician-assisted ordering of epidural therapy reduce occurrences of inappropriate medication administration and complications of therapy?

11:20

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

OPTIMIZING PATIENT OUTCOMES BY IMPLEMENTING A PHARMACIST-MANAGED MEDICATION RECONCILIATION PROCESS ON ADMISSION

Genevieve Hayes, Joel Melroy, Heather Kokko
Medical University Of South Carolina - Charleston, SC

Purpose/Background: Medication reconciliation is a Joint Commission National Patient Safety Goal intended to maintain and communicate accurate patient medication information. At the Medical University of South Carolina (MUSC), a physician-led medication reconciliation process is currently in place for all inpatients. A medication use evaluation (MUE) completed in 2009-2010 revealed a 13.2% completion and accuracy rate for medication reconciliation forms. The aim of this project was to perform a thorough analysis of the medication reconciliation process at MUSC and to implement an improved process.

Methodology: Results from the 2009-2010 MUE were used to identify and measure the scope and extent of incomplete medication histories. A multidisciplinary committee was convened to assess the current practices of completing medication reconciliation to identify problems within this system. Utilizing quality improvement principles, the group identified several remedies for this process along with methods to operationalize the suggested remedies.

Primary outcomes include the percentage of complete and accurate medication histories obtained at admission and the 30-day readmission rate for patients on the pilot unit. Secondary outcomes include number, severity, and acceptance rate of interventions made by pharmacists; average time for completion; documented delays in discharge; and patient satisfaction.

Results: By implementing a pharmacist-managed medication reconciliation process upon admission, 91.5% of admission forms to date in the pilot unit contain accurate and complete information.

Conclusions:

Presentation Objective: Describe the steps of a quality improvement project within an academic medical center. **Self-Assessment:** What are the requirements of the new Joint Commission National Patient Safety Goal regarding medication reconciliation?

11:20

OLY 2

ADM

ABSTRACT REPRODUCTION FORM

IMPACT OF CLINICAL PHARMACIST INTERVENTION ON DIABETES RELATED OUTCOMES IN A MILITARY TREATMENT FACILITY

Stephanie Button, Laura Bowers, Cristóbal S. Berry-Cabán
Womack Army Medical Center - Fort Bragg, NC

Purpose/Background: The extent of pharmacist involvement in ambulatory care services within federally funded (military, Veterans Affairs (VA), and Indian Health Service) medical facilities greatly exceeds all other organization types. Pharmacist interventions achieved during the management of chronic disease states such as diabetes, hypertension, asthma, and anticoagulation have been successful within military treatment facilities (MTF). The Womack Army Medical Center Family Medicine Residency diabetes clinic was established in late 2008 and initially run by one clinical pharmacist. The clinic has experienced a rapid growth in the number of patients enrolled since its establishment. Patients typically referred for pharmacist-management are those with a hemoglobin A1C (HbA1C) >8%, multiple comorbidities, advanced age, and/or a history of noncompliance with medication therapy. The purpose of this study is to evaluate the reduction in HbA1C for those patients managed by a clinical pharmacist compared to patients managed by their primary care manager (PCM).

Methodology: The authors will collect the HbA1C at first encounter with the clinical pharmacist and most recent encounter between September 2008 and December 2010. This intervention group will consist of approximately 125 patients. This data will also be collected for a randomly selected control group of an equal number of patients followed by their PCM. Differences between HbA1C values for both groups will be analyzed.

Results: Analysis in progress

Conclusions: Analysis in progress

Presentation Objective: To describe the utility of a clinical pharmacist managing diabetes in a MTF. **Self-Assessment:** What interventions can pharmacists make to improve HbA1C in patients with diabetes?

11:20

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

HYPOCALCEMIA IN VITAMIN D DEFICIENT PATIENTS STARTED ON BISPHOSPHONATES COMPARED TO PATIENTS WITH NORMAL VITAMIN D LEVELS

Keli Ishman, Jacob Tillmann
N.Florida/S. Georgia Va Health System - Gainesville, FL

Purpose/Background: Because of their mechanism of action, bisphosphonates can cause a mild and transient hypocalcemia. However, case reports of symptomatic bisphosphonate induced hypocalcemia have been reported, with patients in such reports often also having a deficiency in vitamin D. Both bisphosphonates and a deficiency in vitamin D can produce hypocalcemia, and the combination of both in a patient may exaggerate this risk. It is not uncommon for patients started on bisphosphonates to also be vitamin D deficient as half of the patients with osteoporosis-related hip fractures have vitamin D deficiency. Results of this study can help identify whether such a relationship might exist, and if further research in this area would be valuable.

Methodology: This retrospective chart review consists of veterans in the NF/SG VHS prescribed a bisphosphonate for osteoporosis from January 1st, 2007 through April 30th, 2009. Data collection includes bisphosphonate prescribed, Vitamin D level before and after initiation of bisphosphonate, and calcium level before and after initiation of bisphosphonate. Investigators will analyze data to determine whether patients on bisphosphonates with vitamin D deficiency had a higher incidence of hypocalcemia compared to patients with normal vitamin D levels.

Results:

Conclusions:

Presentation Objective: To determine whether patients with vitamin D deficiency are at a greater risk of developing hypocalcemia post bisphosphonate exposure. **Self-Assessment:** Should vitamin D levels be assessed and corrected before initiating therapy with bisphosphonates?

11:20

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

OUTCOMES ASSOCIATED WITH VENOUS THROMBOEMBOLISM (VTE) PROPHYLAXIS IN PATIENTS WITH TRAUMATIC BRAIN INJURY
Annette Sajecki, Elizabeth Michalets, William Shillinglaw, Emily Peterson
Mission Hospital PGY1 Pharm - Asheville, NC

Purpose/Background: Patients with major trauma including those with traumatic brain injuries (TBI) are at high risk for the development of VTEs. Early prevention is imperative due to high morbidity and mortality. CHEST guidelines recommend low molecular weight heparin as the preferred pharmacologic agent. Concerns regarding increased intracranial bleeding and insufficient evidence to recommend appropriate timing of initiation often limit pharmacologic VTE prophylaxis in patients with TBI.

Methodology: A retrospective study is being conducted on TBI patients admitted to Mission Hospitals Trauma Registry between July 1, 2009 and June 30, 2010. Primary objective: to assess patterns of VTE prophylaxis including agent, dose, duration and time to initiation. Secondary objectives: to evaluate outcomes including bleeding and thromboembolism. Inclusions: \leq 18 years, head abbreviated injury score (AIS) of 4 or less with blunt TBI, hospital length of stay 3-30 days. Exclusions: penetrating brain injuries, hospital length of stay $<$ 72 hours or $>$ 30 days and AIS of 5. Data collected using electronic medical records includes: demographics, anticoagulants prior to admission, pre-existing VTE risk factors, presence of intracranial bleeding, head CT scans, progression of intracranial bleeding, time of prophylaxis initiation, agent and dosage used for prophylaxis, use of reversal agent, hold or discontinuation of prophylactic agent, development of DVT or PE while on prophylaxis.

Results:

Conclusions:

Presentation Objective: To characterize the use of VTE prophylaxis in patients with blunt TBI including specific agent, dose and time to initiation. **Self-Assessment:** Is VTE prophylaxis appropriately administered in the blunt TBI patient population?

11:40

Room A

CCM

ABSTRACT REPRODUCTION FORM

RETROSPECTIVE REVIEW OF DEXMEDETOMIDINE FOR INTENSIVE CARE UNIT SEDATION COMPARED TO STANDARD CARE AGENTS
Kristen Edwards, Kelly Dixon, Tripp Dixon, Nichole Wargo
Huntsville Hospital - Huntsville, AL

Purpose/Background: Dexmedetomidine is an alpha-2 agonist that is indicated for intensive care unit (ICU) sedation. Studies have shown that dexmedetomidine may provide a similar level of light to moderate sedation compared to traditional sedative agents while preserving respiratory function and possibly decreasing median time to extubation. The objective of this study is to determine the efficacy, safety, and appropriate use of dexmedetomidine in intensive care unit sedation following the development of an institution-wide protocol.

Methodology: A hospital-wide protocol for the use of dexmedetomidine for ICU sedation was developed, approved, and implemented. Appropriate committees and healthcare practitioners were consulted during the planning process. Nurse, pharmacist, and physician education was provided regarding the dexmedetomidine protocol. This retrospective review looked at patients receiving dexmedetomidine for ICU sedation from October 2010 through March 2011. All patients at least 18 years old were included in the study, excluding patients with acute brain injury or continuous neuromuscular blockade. The comparator group consisted of a group of patients receiving standard sedation, including lorazepam, propofol, or midazolam. The primary study endpoint was the time at target level of sedation indicated by the Richmond Agitation-Sedation Scale (RASS). Secondary endpoints included duration of mechanical ventilation, length of hospitalization and ICU stay, utilization of breakthrough medications, and adverse events.

Results:

Conclusions:

Presentation Objective: Describe the efficacy of dexmedetomidine for ICU sedation compared to standard care agents. **Self-Assessment:** Does dexmedetomidine provide a reasonable alternative for ICU sedation?

11:40

Room B

CCM

ABSTRACT REPRODUCTION FORM

APPROPRIATE USE OF ANTIFUNGAL THERAPY: A RETROSPECTIVE REVIEW
Brooke Stayer
Holston Valley Medical Center - Kingsport, TN

Purpose/Background: Antimicrobial stewardship programs are becoming increasingly prevalent in hospitals throughout the country in an attempt to improve the appropriate selection of antimicrobials and minimize development of resistance. The focus, however, is mainly on antibacterial agents, with some focus on antifungal agents. The newer classes of antifungal agents, including the second-generation azoles and the echinocandins, have shown excellent coverage and improved safety profiles over the previously available antifungals. These additions to therapy make appropriate selection of antifungal agents more challenging. The purpose of this study is to determine the appropriateness of the use of systemic antifungal agents in adult inpatients at Holston Valley Medical Center (HVMC) based on the current Infectious Disease Society of America (IDSA) guidelines for antifungal use.

Methodology: This is a retrospective analysis of antifungal utilization in adult patients over 12 months at HVMC. The study population includes all adult (age 18+), nonpregnant inpatients who received at least 1 dose of an oral or intravenous antifungal agent, including fluconazole, voriconazole, or micafungin (formulary antifungal agents) between January and December 2010. Patients will be screened, and all included study patients will be evaluated to determine if the use of a systemic antifungal agent was necessary and if selection of the antifungal agent was appropriate based on the current IDSA guidelines.

Results: Data collection is ongoing.

Conclusions: Pending

Presentation Objective: Identify the appropriate uses of systemic antifungals based on IDSA guidelines. **Self-Assessment:** Are antifungals utilized appropriately in adult patients at HVMC?

11:40

Room C

ID

ABSTRACT REPRODUCTION FORM

IMPACT AND PERCEPTIONS OF A PIPERACILLIN/TAZOBACTAM DOSE REVIEW SERVICE PROVIDED BY STAFF PHARMACISTS
Dixie Stephens And William Elliott
Fayetteville VA Medical Center - Fayetteville, NC

Purpose/Background: Promoting optimal use of antimicrobial agents is identified as an important clinical responsibility of pharmacists for antimicrobial stewardship and infection prevention and control by the American Society of Health-System Pharmacists. Future plans at the Fayetteville VA Medical Center include developing a pharmacokinetics service provided by staff pharmacists. As an initial step towards that goal, the purpose of this study is to implement a piperacillin/tazobactam renal dosing review service provided by inpatient staff pharmacists.

Methodology: For each new, renewed, or changed order for piperacillin/tazobactam, the pharmacist determined the patient's creatinine clearance and appropriate dose. A Microsoft® Excel worksheet was created to assist pharmacists in calculating creatinine clearance based on the Cockcroft-Gault equation. Pharmacists contacted the ordering physician if a dosing adjustment was recommended. To evaluate the success of the service, the percentages of inappropriate doses during the 3 months before and 3 months following the initiation of the service were compared. The physician acceptance rate of dosing recommendations was also measured. To evaluate pharmacists' perceptions of implementing new inpatient responsibilities, a survey was given prior to participating in the service and a post-survey was given 3 months after the service was initiated.

Results:

Conclusions:

Presentation Objective: Determine physician acceptance and pharmacists' perception of a piperacillin/tazobactam renal dosing review service. **Self-Assessment:** What are potential barriers and benefits of introducing new responsibilities to pharmacists?

11:40

Room D

ID

ABSTRACT REPRODUCTION FORM

OUTCOMES ASSOCIATED WITH CHEMOTHERAPY DOSING IN OBESE PATIENTS WITH HEMATOLOGIC MALIGNANCIES

Katerina Katsanevas, Violette Ajiboye, David Deremer
MCG Health-UGA PGY1 Pharmacy - Augusta, GA

Purpose/Background: Obesity has rapidly evolved into a well recognized health concern. Studies have linked obesity with a variety of co-morbidities, including different types of cancers. Also, specific cancers have been associated with higher risk of mortality with increased body mass index (BMI).

Although obese patients exhibit altered pharmacokinetics relative to non-obese patients, oncology studies often overlook weight as a covariate. There is no current consensus on dosing adjustments in obese patients; as such, dosing variability is widespread. Several weight estimates have been used in calculating body surface area (BSA), including ideal body weight (IBW) and adjusted body weight (AdjBW). However, this empiric dosing strategy may impact treatment efficacy. In the absence of dosing guidelines, a common practice among clinicians is to cap the BSA at 2. Studies assessing the impact of chemotherapy dosing practices in obese patients with hematologic malignancies are rare. Further research is needed to clarify the relationship between chemotherapy dosing in obese patients and treatment outcomes.

Methodology: A retrospective review will be performed on an estimated 200 patients with hematologic malignancies receiving standard induction therapies. Specifically, dosing of anthracyclines and monoclonal antibodies will be investigated.

Results:

Conclusions:

Presentation Objective: Evaluate the effect of chemotherapy dosing and BMI on treatment outcomes in obese patients

Self-Assessment: Should the BSA for chemotherapy dosing be capped for all chemotherapy agents regardless of their toxicity profile?

11:40

Room G

ONC

ABSTRACT REPRODUCTION FORM

ANALYSIS OF THE EFFECT OF VARIOUS DOSING WEIGHTS ON SERUM GENTAMICIN CONCENTRATIONS IN PREGNANT AND POSTPARTUM PATIENTS

Michelle R. Rychalsky, Paul Dombrower
University Of North Carolina Hospitals PGY1 Pharmacy - Chapel Hill, NC

Purpose/Background: Gentamicin composes standard treatment regimens for gynecologic infections during the antepartum and postpartum periods. Multiple pharmacokinetic changes associated with pregnancy increase the volume of distribution and decrease serum concentrations of gentamicin. A continuous change in volume of distribution challenges pharmacists when determining accurate gentamicin dosing weights for obstetric patients. Prior studies demonstrated that utilization of actual body weight in gentamicin dosing resulted in subtherapeutic peak concentrations in half of all peripartum patients. Many clinicians do not obtain weights during the postpartum state due to fluid loss. As a result, pre-pregnancy and admission weights are frequently used as dosing weights. This practice may result in non-therapeutic serum gentamicin levels and treatment failure in obstetric patients.

Methodology: A retrospective analysis of gentamicin use in pregnant and postpartum patients within the past five years was conducted. Patients were included in the study if at least one steady-state gentamicin peak and trough concentration was obtained. Patients with pre-existing renal insufficiency were excluded from the analysis. Collected data included patients weights (pre-pregnancy, admission, postpartum), gentamicin doses, and serum concentrations. The dosing weight used to initiate gentamicin therapy in each patient was identified. Data analysis was performed to determine which dosing weights and volumes of distribution most frequently provided therapeutic peak concentrations.

Results:

Conclusions:

Presentation Objective: Identify dosing weights and associated volumes of distribution that provide therapeutic peak and trough serum gentamicin concentrations in pregnant and postpartum patients. **Self-Assessment:** Which pharmacokinetic changes that occur during pregnancy and the postpartum period affect serum gentamicin concentrations?

11:40

Room H

CLPK

ABSTRACT REPRODUCTION FORM

DOES EARLY CORTICOSTEROID WITHDRAWAL LEAD TO WORSE CLINICAL OUTCOMES IN LIVER TRANSPLANT RECIPIENTS?

Holly E. Barrier, Sarah M. Tischer, Nicole A. Pilch, David J. Taber
Medical University Of South Carolina - Charleston, SC

Purpose/Background: The aim of this study was to assess clinical outcomes of early versus late corticosteroid withdrawal in liver transplant recipients.

Methodology: This was a large-scale, cross-sectional analysis of all adult liver transplant recipients transplanted at our institution between 1/00 and 11/09. Patients were divided into early (< 3 months) and late corticosteroid withdrawal (3-12 months). Multi-organ transplant recipients and patients with follow-up less than 6 months were excluded.

Results: A total of 586 liver transplant patients were identified; 400 met inclusion criteria; 330 were withdrawn from steroids by 1 year (83%). Baseline demographics were similar between groups, including age, cold time, cause of end stage liver disease, and baseline immunosuppression. Patients withdrawn from steroids within 3 months had lower early rates of rejection, but similar overall rejection rates compared to the late withdrawal group. Kaplan-Meier survival analysis showed improved long-term graft survival in the late corticosteroid withdrawal group. Multivariate analysis demonstrated that interleukin-2 induction therapy and late steroid withdrawal were independently protective for graft survival. Metabolic outcomes including new onset diabetes, lipids, and hypertension were similar between groups.

Conclusions: Steroid withdrawal is common in liver transplantation and this data suggests that late steroid withdrawal is associated with better long term graft survival. Prospective studies are warranted to confirm this finding.

Presentation Objective: To assess the impact on clinical outcomes of early versus late corticosteroid withdrawal in liver transplant recipients **Self-Assessment:** Is late corticosteroid withdrawal in liver transplant recipients associated with better clinical outcomes?

11:40

Room I

TRP

ABSTRACT REPRODUCTION FORM

OPTIMIZING INPATIENT GLYCEMIC MANAGEMENT UTILIZING A HOSPITAL-WIDE BASAL-BOLUS INSULIN PROTOCOL

Nova Krzyanowski, Rebecca Kisgen, Nicole Pricer
Sarasota Memorial Hospital - Sarasota, FL

Purpose/Background: Recent studies have shown that basal-bolus insulin regimens provide superior glycemic control for inpatients compared to sliding scale regimens. At our institution, a conservative basal-bolus insulin protocol was initiated on one patient care unit in Spring 2009 and expanded to another in Spring 2010. This protocol was found to be safe with minimal hypoglycemic events compared to patients on sliding scale regimens, but required numerous titrations to achieve euglycemia. Thus, a new protocol was developed and approved by the Glycemic Control Committee to optimize glucose control aggressively and was implemented hospital-wide in January 2011. The objective of this study is to determine the safety and efficacy of the new basal-bolus protocol compared to the previous protocol.

Methodology: This IRB-approved study consisted of two retrospective groups: patients that received the basal-bolus insulin regimen from the previous protocol between February 2009 and September 2010 and the comparator group of patients that received the modified protocol between January 2011 and March 2011. Patients were included for data collection if they were on the basal-bolus insulin protocol for at least three days. Patients were excluded from receiving the protocol if they were less than eighteen years old, pregnant, or for the initial management of diabetic ketoacidosis. The primary efficacy endpoints were mean daily glucose values and percent of glucose values within goal. The secondary safety endpoint was the number of hypoglycemic events.

Results:

Conclusions:

Presentation Objective: Describe the concept of basal-bolus insulin therapy. **Self-Assessment:** What are the three components of basal-bolus insulin therapy?

11:40

Room J

IM

ABSTRACT REPRODUCTION FORM

REFRIGERATED AMIODARONE AND THE INCIDENCE OF THROMBOPHLEBITIS
Joe Maki, Marc Reichert
Wake Forest University Baptist Medical Center - PGY1 - Winston-Salem, NC

Purpose/Background: Atrial fibrillation is the most common dysrhythmia after cardiac surgery, with an approximate incidence of 30%. Amiodarone, a class III antiarrhythmic, is often used acutely to treat atrial fibrillation. One risk of peripheral administration of intravenous amiodarone is thrombophlebitis, and it was hypothesized that refrigeration of this drug was leading to an increased incidence of this adverse event. This quality control study will assess the impact of switching storage of amiodarone from refrigeration to room temperature, as well as various patient factors, on the incidence of thrombophlebitis on the Cardiothoracic Surgery service.

Methodology: All patients who underwent cardiothoracic surgery over a one year period will be screened retrospectively for pre and post-op atrial fibrillation using the electronic medical record. These patients will then be screened for amiodarone use and/or thrombophlebitis. Other information, including age, gender, type of surgery, time of day and use of amiodarone bolus(es), will be collected to aid in the impact assessment.

Results:

Conclusions:

Presentation Objective: Assess the impact of various factors on incidence of thrombophlebitis, and determine the success of a quality control initiative. **Self-Assessment:** Does storing amiodarone at room temperature decrease the incidence of thrombophlebitis?

11:40

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

NEW PATIENT ORIENTATION: UTILIZATION OF PHARMACY BENEFITS AND
PROCESS IMPROVEMENT
Melissa Kossove
Bay Pines VA Medical Center - Bay Pines, FL

Purpose/Background: A national Veteran Affairs initiative was recently launched to promote patient-centered care with an emphasis on an interdisciplinary team approach to improve patient health. The purpose of this project is to revise the current patient orientation process in order to integrate this new concept and to better define pharmacy's involvement. These revisions focused on providing increased pharmacy benefits information in a shorter timeframe. In addition, the role of the pharmacist was streamlined to allow for maximum use of the pharmacists' time and clinical knowledge.

Methodology: Weekly interdisciplinary meetings were organized. It was decided that information was better and more briefly distributed in video form. This video would include an overview of pertinent information from each department. Collaboration with each department and writing of the script followed. Other changes to the process were also introduced such as a medication formulary conversion database. Furthermore, large group classes would be replaced by shorter and more timely individual orientations. Computers would be used to allow each patient to watch the video and communicate medical information to their physician and pharmacist using secure provider messaging.

Results:

Conclusions:

Presentation Objective: Utilize an interdisciplinary approach to more effectively manage an aspect of patient care. **Self-Assessment:** What are the benefits that the pharmacy department can offer to the patient orientation process?

11:40

OLY 2

ADM

ABSTRACT REPRODUCTION FORM

CHARACTERISTICS ASSOCIATED WITH CONSISTENTLY THERAPEUTIC
INTERNATIONAL NORMALIZED RATIOS IN A VETERAN POPULATION
Amanda Thompson, Kurt Reinhart, Brian Peek
VA Medical Center - Asheville - Asheville, NC

Purpose/Background: Warfarin's narrow therapeutic index, overall complex pharmacokinetic profile, and range of patient factors necessitate close international normalized ratio monitoring. Initial follow-up requires frequent visits for INR monitoring. However, once patients become stable, monitoring can be extended to 4 week intervals. If a stable INR patient population can be identified, the potential for extending INR monitoring, decreasing clinic visits, and ultimately decreasing costs exist. The primary objective of this study is to establish patient characteristics that identify a population with an increased likelihood of having a consistently stable INR in therapeutic range.

Methodology: A retrospective chart review of the patient population at the Charles George VAMC anticoagulated with warfarin for at least 6 months with an INR target range of either 2 to 3 or 2.5 to 3.5 will be completed. The primary endpoint is characteristics associated with patients more likely to be in therapeutic INR range at 4 weeks; these include age >70, INR target range, primary indication for anticoagulation therapy, absence of diabetes mellitus, hypertension, or heart failure, and previous venous thrombosis. Other exploratory endpoints assessed include number of INRs greater than 5, patients with documented alcoholism, patients with a mechanical mitral valve, warfarin dosing characteristics, and number of visits at CGVAMC per year. Research for this study was performed with the support and resources of the CGVAMC.

Results:

Conclusions:

Presentation Objective: To identify characteristics that are present in patients taking warfarin with consistently stable INR readings. **Self-Assessment:** Identify factors that can alter international normalized ratios (INRs).

11:40

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

EVALUATION OF A PHARMACIST-MANAGED HYPERTENSION CLINIC IN THE
VETERANS AFFAIRS SYSTEM
Lauren Hooker McLamb, Cassandra Denise Waddell
N.Florida/S. Georgia VA Health System - Gainesville, FL

Purpose/Background: Published literature acknowledges the positive impact of pharmacist involvement on blood pressure reduction in hypertensive patients. However, there is presently no established best-practice model for pharmacist management of hypertension. This study was designed to evaluate a pharmacist-managed hypertension clinic and describe a practice model that includes pharmacy resident involvement, reliance on home blood pressure monitoring, phone follow-up, and flexibility to see patients in person at clinic visits.

Methodology: A retrospective chart review was conducted using medical records of veterans from the Malcom Randall Veterans Affairs Medical Center with blood pressures managed by hypertension clinic pharmacists between January 1, 2010 and December 31, 2010. Eligible veterans had at least two pharmacy-supervised hypertension management clinic appointments and no providers outside the Veterans Affairs system co-managing their blood pressure. The primary objective was to assess the difference in systolic and diastolic blood pressure at the consultation visit as compared to the final pharmacist-managed visit. The secondary objective was to assess the proportion of patients reaching blood pressure goals per JNC-7 guidelines at their final pharmacist-supervised visit. Other data was collected to assess the complexity of cases managed, the role of pharmacy residents in clinic, percentage of telephone vs. in-person clinic visits, pharmacist interventions, and average length of time patients were followed by the clinic.

Results:

Conclusions:

Presentation Objective: Describe components of a pharmacist-managed hypertension clinic. **Self-Assessment:** What are key elements of a pharmacist-managed hypertension clinic?

11:40

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

EVALUATION OF PIPERACILLIN/TAZOBACTAM DOSING AND OUTCOMES IN PATIENTS RECEIVING CONTINUOUS RENAL REPLACEMENT THERAPY (CRRT)

Wesley Dulaney, Jim Humble, Emily Peterson, Tiffany Gardella
Mission Hospital PGY1 Pharm - Asheville, NC

Purpose/Background: Continuous renal replacement therapy (CRRT) is a method of continuous dialysis that removes volume and solutes more slowly to decrease the potential for hemodynamic instability. The efficiency of solute removal is important when selecting and dosing medications, particularly antibiotics. Piperacillin/tazobactam, the most commonly prescribed antibiotic in patients receiving CRRT at Mission Hospital, has been evaluated in several studies and dosing recommendations have been published for use in CRRT. However, many patients may be underdosed due to variability in the dosing recommendations leading to subtherapeutic antibiotic concentrations, resistance, and poor outcomes. The purpose of this study is to characterize the dosing of piperacillin/tazobactam in patients receiving CRRT and to compare the improvement of infection markers and patient outcomes between the different dosing regimens.

Methodology: This study is a retrospective chart review of adult patients at Mission Hospital who received piperacillin/tazobactam while on CRRT between January 1, 2009 and November 30, 2010. Specific infection markers (WBC, neutrophils, bands, and temperature), duration and improvement on mechanical ventilation, ICU length of stay, and ICU discharge disposition were collected for each patient and compared between the piperacillin/tazobactam dosing regimens. Other collected data include: patient demographics, CRRT modality and flow rate, and antibiotic indication.

Results:

Conclusions:

Presentation Objective: Identify the appropriate dosing of piperacillin/tazobactam in patients receiving CRRT and discuss the potential impact on clinical outcomes. **Self-Assessment:** What piperacillin/tazobactam dosing regimen(s) should pharmacists recommend in patients receiving CRRT?

12:00

Room A

CCM

ABSTRACT REPRODUCTION FORM

USE OF VASOPRESSORS FOLLOWING ETOMIDATE FOR INDUCTION IN CARDIAC SURGERY PATIENTS

Kasey Greathouse; Sarah Bush; Lucy Crosby; Barry Davis; Steve Lysak
Greenville Hospital System PGY1 - Greenville, SC

Purpose/Background: Etomidate is an ultra-short acting hypnotic commonly used to induce anesthesia during cardiac surgery. Etomidate does not cause significant cardiovascular or pulmonary depression during administration but may cause suppression of cortisol production for up to 24 hours after administration. This reduction in cortisol may exacerbate the vasodilatory state seen immediately after cardiac surgery. The purpose of this study is to compare post-operative vasopressor requirements in cardiac surgery patients receiving etomidate to patients not receiving etomidate for induction of anesthesia.

Methodology: Adult patients admitted to the Cardiovascular ICU for post-operative care following cardiac surgery with cardiopulmonary bypass (CPB) were included. Emergent procedures, minimally-invasive procedures, endocarditis, suspected sepsis, use of a pre-operative intra-aortic balloon pump, use of vasopressors prior to surgery, use of etomidate post-operatively, use of ECMO support, history of adrenal disease or use of systemic corticosteroids prior to surgery were criteria for exclusion. The primary outcome was time on vasopressors. Secondary outcomes included proportion of patients on vasopressors for greater than 24 hours, time on CPB, time on ventilator, total dose of vasopressors, ICU length of stay, hospital length of stay and in-hospital mortality. Data will be analyzed using descriptive statistics, Chi square, Wilcoxon Rank Sum test and other statistical tests as appropriate.

Results:

Conclusions:

Presentation Objective: Evaluate the effect of etomidate on vasopressor requirements after cardiac surgery with cardiopulmonary bypass. **Self-Assessment:** Does the use of etomidate for induction of anesthesia increase vasopressor requirements after cardiac surgery?

12:00

Room B

CCM

ABSTRACT REPRODUCTION FORM

VALIDATION OF A VANCOMYCIN DOSING NOMOGRAM USING THE ESTIMATED AREA UNDER THE CURVE TO MINIMUM INHIBITORY CONCENTRATION RATIO

Brian Blonar; Amy Woodhouse; Kris Bedenbaugh
Wellstar Kennestone Hospital - Marietta, GA

Purpose/Background: Monitoring of serum vancomycin trough levels is the standard of care and is recommended by the Infectious Diseases Society of America. While AUC/MIC monitoring has been shown to correlate with clinical efficacy, consensus holds that this method of monitoring is less practical.

This research project seeks to assess one institution's empiric vancomycin dosing nomogram with respect to the estimated AUC/MICs it produces. The primary outcome will be the percentage of patients dosed with the nomogram who's regimens produce a ratio of 400:1. The secondary outcome will be the correlation of serum trough values with AUC/MIC ratios. Further analysis will investigate the use of AUC/MIC monitoring as a supplement to the nomogram.

Methodology: Initially, the investigator solicited a Staphylococcus aureus MIC report from the microbiology laboratory and calculated the average MIC for this organism. All vancomycin consults from October 1st 2010 through December 31st 2010 were screened for the presence of at least one steady state trough level and other laboratory data needed for the calculations. Patients who were not empirically dosed per the nomogram were excluded. Estimated AUC/MIC ratios were calculated using a previously published method and reconciled against the target of 400:1. A retrospective analysis compared these values to actual serum trough levels.

Results:

Conclusions:

Presentation Objective: To describe the significance of the 400:1 AUC/MIC ratio and discuss its application as a nomogram validation tool. **Self-Assessment:** What percentage of patients dosed with the institution's nomogram met the AUC/MIC ratio of 400:1?

12:00

Room C

ID

ABSTRACT REPRODUCTION FORM

IMPACT OF ANTIVIRAL THERAPY ON LIPIDS IN VETERANS WITH CHRONIC HEPATITIS C VIRUS

Jennie Hewitt, Nicole Dolder, Lakia Scoggins, And Camille Robinette
Salisbury VA Medical Center - Salisbury, NC

Purpose/Background: Evaluate the impact of antiviral therapy on lipids in a real-world United States Veteran population with HCV.

Methodology: In this retrospective chart review, subjects are eligible for inclusion if he or she is a veteran ≥ 18 years of age with a positive hepatitis C viral load, who received antiviral therapy with pegylated interferon and ribavirin through early virologic response (EVR) testing. Patients must have a documented cholesterol panel drawn within 12 months prior to treatment initiation and a documented cholesterol panel drawn within 12 months after treatment completion. Patients are excluded from the study if he or she has dual infection with hepatitis B virus, co-infection with HIV, is the recipient of solid organ transplantation, or has a diagnosis of other liver disease. Baseline lipid panel, HCV characteristics, liver function tests, cardiac risk factors, virologic response and each lipid panel collected during treatment and up to 12 months after treatment were collected for each subject. Additional information about confounding variables such as insulin resistance, weight changes, and lipid altering medications was also collected. Comparisons will be made between pre- and post-treatment lipid levels of subjects and also between the groups of responders versus non-responder/relapsers.

Results:

Conclusions:

Presentation Objective: Evaluate the impact of hepatitis C antiviral therapy on lipids in a veteran population. **Self-Assessment:** What impact can pharmacists have on lipid management in veterans who have been treated for hepatitis C virus?

12:00

Room D

ID

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

EVALUATION OF TARGETED BUSULFAN TO DETERMINE IF DRUG MONITORING RESULTS IN SIGNIFICANT ALTERATIONS TO DOSING REGIMENS
Mikka J. Summerton, Nancy Vendrell, Vivek Roy
Mayo Clinic In Florida - Jacksonville, FL

Purpose/Background: Busulfan-based chemotherapy is used as part of a myeloablative regimen in preparation for hematopoietic stem cell transplantation (HSCT). A correlation between pharmacokinetic characteristics of busulfan therapy and clinical outcomes has been previously reported. Therapeutic drug monitoring is used to confirm achievement of adequate chemotherapy levels while attempting to limit dose-related toxicities. The primary objective of this study was to evaluate the degree of change that occurs to the busulfan dosing regimen based on targeted area-under-the-curve (AUC) levels and determine if therapeutic drug monitoring is clinically necessary in all patients receiving intravenous busulfan in preparation for HSCT.

Methodology: Participants were individuals aged 18 or older administered intravenous busulfan 0.8 mg/kg in preparation for HSCT. Specimens were collected for pharmacokinetic analysis immediately following the termination of the 2 hour infusion, and at 1, 2 and 4 hours post-infusion. A 6-hour calculated AUC was determined using the trapezoidal method and subsequent dosing recommendations were generated by the laboratory based on an ideal target AUC of 1100 $\mu\text{mol} \cdot \text{min}$. Each patient was assessed to determine the magnitude of change that occurred to the dosing regimen based on the pharmacokinetic results. Additional parameters assessed included the patient's weight used for dosing and pharmacokinetic calculations, busulfan-related adverse effects occurring during the initial hospitalization and up to the last known follow-up, abnormal laboratory measurements, and potential medication interactions.

Results:

Conclusions:

Presentation Objective: Describe the current rationale for busulfan pharmacokinetic evaluation. **Self-Assessment:** What potentially fatal adverse outcome may be associated with a supratherapeutic busulfan AUC?

12:00

Room G

ONC

IMPLEMENTATION OF A GERIATRIC MEDICATION MANAGEMENT CLINIC
Nathan Hamil And Cristen Dando
Cherokee Indian Hospital - Cherokee, NC

Purpose/Background: Design and implement a geriatric MTM service that works closely with patients and providers to improve therapeutic outcomes.

Methodology: Eligible patients for geriatric MTM are ≥ 65 years of age and take ≥ 7 medications per day. Appointments are scheduled by providers. Laboratory values and medications were reviewed and interventions were documented for provider review.

Results: Thus far, six patients have been included in this P&T and Ethics Committee approved pilot study. The average number of daily medications was 12 (range 7-19). A total of 16 interventions have been documented in the electronic health record, with 9 interventions accepted by the provider. Interventions made and accepted included: ordering laboratory tests, refilling medications, adding additional medications, clarifying medication orders, and changing therapies based on BEERS criteria.

Conclusions: This pilot study has observed opportunities for pharmacists to improve therapeutic outcomes for patients by providing medication education, reviewing laboratory data with providers, and making recommendations to minimize adverse events through the addition of medications, dosing alterations, and elimination of medications, especially BEERS criteria medications. A follow-up process will be developed to evaluate additional benefits of this clinic and potential cost-savings to the hospital system.

Presentation Objective: List pharmacist made interventions in a geriatric MTM clinic that may improve therapeutic outcomes for patients. **Self-Assessment:** What is one intervention that a pharmacist can make to improve therapeutic outcomes for geriatric patients?

12:00

Room H

GER

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

A CRITICAL ANALYSIS OF LEFLUNOMIDE FOR BK VIREMIA
Jill Krisl, Dave Taber
Medical University Of South Carolina - Charleston, SC

Purpose/Background: There is limited data regarding the utility of therapeutic drug monitoring (TDM) for leflunomide to treat BK viremia. The purpose of this study was to determine if a pharmacodynamic relationship exists between BK viral load reduction and leflunomide serum concentrations in kidney transplantation (KTX).

Methodology: This was a retrospective analysis of KTX with BK viremia receiving leflunomide. All BK PCR viral loads and leflunomide concentrations were collected, analyzed and correlated with outcomes to determine if a pharmacodynamic relationship exists. Economic analysis was performed from the societal perspective.

Results: A total of 76 patients resulting in 527 leflunomide levels were analyzed. No significant differences were seen between the group that achieved BK viral clearance and the viremic group. Multivariate analysis demonstrated that discontinuation of MMF, BK viremia without nephropathy, and mean BK viral load were all significantly associated with BK viral clearance; use of leflunomide therapy lacked association. There was a lack of correlation between leflunomide concentrations and log change in BK viral load. Average cost per patient for TDM was \$4500, a total of \$342,000 for all 76 patients.

Conclusions: Pharmacodynamic analysis revealed no associations between leflunomide concentrations and BK PCR viral reductions. Multivariate analysis demonstrated that the use of leflunomide was not associated with BK viral clearance. Leflunomide therapeutic monitoring is an expensive and time consuming process.

Presentation Objective: To determine if a pharmacodynamic relationship exists between BK viral load reduction and leflunomide serum concentrations in kidney transplantation. **Self-Assessment:** Should leflunomide be used to treat kidney transplantation patients with BK viremia?

12:00

Room I

TRP

COMPARATIVE EFFICACY OF CHEWING GUM VERSUS ALVIMOPAN FOR REDUCING POSTOPERATIVE ILEUS FOLLOWING ELECTIVE BOWEL RESECTION
Katie Palmer And Amy Giovino
Sarasota Memorial Hospital - Sarasota, FL

Purpose/Background: Postoperative ileus (POI) is the most common reason for delayed discharge after abdominal surgery. Two pharmacological strategies have consistently proven effective in reducing the incidence of POI: alvimopan and chewing gum. In clinical trials, alvimopan reduced time to solid food intake and bowel movement by 17 hours and time to hospital discharge orders written by 20 hours compared to placebo. In a 2009 meta-analysis, patients who chewed gum after colonic surgery significantly reduced the time to first bowel movement and first flatus by 25 and 14 hours respectively, decreasing hospital stay by 26 hours. There are no published studies comparing chewing gum to alvimopan for the prevention of POI.

Methodology: This is an IRB approved, randomized, open-label trial. Eligible patients will be randomized to receive either chewing gum, one stick three times daily, or alvimopan, 12mg prior to surgery and then twice daily. Enrollment will continue until 34 patients meet modified intention to treat criteria. Treatment will continue until first bowel movement or for a total of seven postoperative days, whichever comes first. All patients will additionally receive standard of care. The primary objective of this study is to evaluate the efficacy of chewing gum versus alvimopan for the prevention of POI by comparing differences in hospital length of stay.

Results:

Conclusions:

Presentation Objective: Compare and contrast chewing gum versus alvimopan for the POI. **Self-Assessment:** Which of the following is a proposed mechanism of POI prevention provided by chewing gum?

12:00

Room J

IM

ABSTRACT REPRODUCTION FORM

UTILIZATION OF REPORTED MED ERRORS TO DRIVE EDUCATION AND CONTINUOUS IMPROVEMENT IN THE SAFETY OF MEDICATION ADMINISTRATION
William M. Nolin, Shannon Suggs
McLeod Regional Medical Center - Florence, SC

Purpose/Background: Since the publication of "To Err is Human," by The Institute of Medicine, medication errors have been propelled into the public eye. Both this illumination and the concern for patient safety have driven policy and technological advancements in our health system in an effort to eliminate preventable medication errors. The purpose of this study was to improve the process of voluntary reporting and to provide a mechanism for continuous monitoring and analysis of medication errors. The past reporting system was found to have deficiencies that hindered the optimal utilization of the data collected.

Methodology: A review of data collected from voluntary reporting from January 2010 through August 2010 was completed. This information revealed that reporting quantity was trending downward and data collected regarding medication errors was not actionable. The taxonomy used to code the collected information was revised to enhance definition and aid the coders with interpretation. Improvements were made to the collection tool, the tool was made more readily available to reporters, and education was given to staff members to raise awareness of the need to accurately report medication errors to increase both quality and quantity of the reports. A standardized process for coding and analyzing the collected data will be established to provide actionable information.

Results:

Conclusions:

Presentation Objective: Discuss the utilization of voluntary medication error reporting to drive education and improvement of the medication delivery process. **Self-Assessment:** Can data collected from voluntary reporting provide actionable data for use in improving patient safety?

12:00

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

JUSTIFYING A CLINICAL PHARMACIST POSITION WITHIN THE RADIOLOGY DEPARTMENT FOR IMPROVEMENT OF PATIENT SAFETY
Rachael Boggs, Keri Justice
Bay Pines VA Medical Center - Bay Pines, FL

Purpose/Background: The purpose of this study was to justify a pharmacist position in the radiology department to the resources board in order to improve patient safety. A run-in trial placed a pharmacist in this setting temporarily and the resultant data collected was used, amongst other data, to help justify a need for the position. A detailed request was formulated and presented to the resources board in attempt to justify the need for a pharmacist in the radiology department.

Methodology: Current literature supporting the use of a pharmacist in radiology departments was gathered and reviewed for comparison with the proposed new position. Previously collected non-patient-specific data from a temporary run-in trial was collected and translated into statistical results. Additional data including staffing charts and monetary graphing was collected, evaluated, compiled and reported in a readable format that was presented to the resources review board. Data was evaluated from fiscal year 2008 through fiscal year 2010.

Results: The position is still pending and the resources committee has requested additional information from the radiology department.

Conclusions: It is plausible to request a pharmacist to be utilized in a radiology department for improved patient safety. Developing a convincing argument involves extensive preparation and research.

Presentation Objective: Describe the groundwork and important data necessary to collect in order to be prepared to justify a new clinical pharmacist position to upper management. **Self-Assessment:** What fundamental pieces of information should be included in a resource request that may improve the likelihood of the position being accepted?

12:00

OLY2

ADM

ABSTRACT REPRODUCTION FORM

IMPACT OF A PILL BOX CLINIC TO IMPROVE SYSTOLIC BLOOD PRESSURE BY 10MMHG IN VETERANS WITH UNCONTROLLED HYPERTENSION
Shawn Riser, Angela Porter, Kurt Reinhart, Angela Pentecost
VA Medical Center - Asheville - Asheville, NC

Purpose/Background: Two-thirds of Americans receiving treatment for their hypertension are not at a goal of <140/90 mmHg. Low adherence has been identified as the primary cause of inadequate control of blood pressure. Evidence has shown that increasing adherence to anti-hypertensive medications improves blood pressure control and reduces the risk of cardiovascular complications. At the Charles George Veterans Affairs Medical Center this research project will assess if implementing a pill box clinic improves blood pressure in veterans with uncontrolled hypertension prescribed three or more antihypertensive medications.

Methodology: This is a prospective pilot study with enrollment of 60 patients. A patient is eligible to participate if he/she meets the following criteria: diagnosis of hypertension at least one year ago, currently prescribed at least three anti-hypertensive medications and three consecutive blood pressure readings not at goal in the past six months. Patients enrolled will be given two 7-day pill boxes in which to organize his/her anti-hypertensive medications. Education will be provided by a pharmacist on how to appropriately fill the pill box.

Results:

Conclusions:

Presentation Objective: To discuss the importance of adherence to anti-hypertensive medications. **Self-Assessment:** What are reasons why a patient may be non-adherent to his/her anti-hypertensive medication regimen?

12:00

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

EVALUATION OF AN EPOETIN TO DARBEPOETIN CONVERSION SECONDARY TO PRODUCT RECALL IN VETERANS WITH CHRONIC KIDNEY DISEASE
Mark Heller, Connie Tran
N.Florida/S. Georgia VA Health System - Gainesville, FL

Purpose/Background: Erythropoiesis-stimulating agents (ESAs) are indicated for treatment of anemia secondary to chronic kidney disease. In September 2010, a national product recall was issued for epoetin alfa due to the concern that the product may contain extremely thin glass flakes (lamellae) as a result from the interaction of the drug formulation with glass vials over the shelf life of the product. Veterans at the North Florida/South Georgia Veterans Health System were converted to equipotent doses of darbepoetin as a result of the recall. The purpose of this study is to evaluate whether there was any difference in hemoglobin response and ESA dosing frequency with darbepoetin, as compared to epoetin.

Methodology: Eligible veterans greater than 18 years of age with chronic kidney disease, not receiving dialysis, not undergoing chemotherapy, with iron saturation greater than or equal to 20% within 180 days prior to the conversion, who had been receiving epoetin for at least 60 days prior to the conversion were included. These patients were followed retrospectively during the conversion period of September 24, 2010 to December 31, 2010. The primary outcome was to assess if a difference exists in hemoglobin response from the conversion of epoetin to darbepoetin. The secondary outcome evaluated was the total number of ESA doses per 28 days while on epoetin compared to darbepoetin and its proposed impact on patient convenience and cost.

Results:

Conclusions:

Presentation Objective: Identify the differences between epoetin and darbepoetin. **Self-Assessment:** What is the hemoglobin target range for chronic kidney disease patients receiving erythropoiesis-stimulating agents (ESAs)?

12:00

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

USE OF EMPIRIC ANTIBIOTICS FOR THE TREATMENT OF PNEUMONIA IN THE EMERGENCY DEPARTMENT OF A COMMUNITY HOSPITAL
William Rodgers, Bethany Delk, Jason Hunt
Mission Hospital PGY1 Pharm - Asheville, NC

Purpose/Background: The time to the first antibiotic dose administered to patients presenting to the emergency department (ED) with suspected pneumonia is a Centers for Medicaid and Medicare Services and The Joint Commission quality measure. Currently, the quality measure recommendation is that any patient presenting to the hospital with suspected pneumonia receives the first dose of appropriate antibiotic therapy within six hours of hospital presentation. This is based on studies by Meehan and Houck which showed a significant decrease in mortality for patients receiving antibiotics within eight and four hours of hospital presentation, respectively.

The choice of empiric treatment is equally important. The Infectious Diseases Society of America (IDSA) and American Thoracic Society (ATS) have published guidelines to assist providers in treating patients with both community-acquired and healthcare-associated pneumonia. Since ED physicians are often responsible for initiating therapy in these patients, it is important that their selection is based on these recommendations. The purpose of this study is to evaluate the time of administration and appropriateness of initial antibiotic selection for patients presenting to the ED with suspected pneumonia.

Methodology: A retrospective chart review was performed on a randomized sample of patients with suspected pneumonia who presented to the ED of a community hospital between January 1, 2010 and June 30, 2010.

Results:

Conclusions:

Presentation Objective: To evaluate the time of administration and appropriateness of initial antibiotic selection for patients presenting to the ED with suspected pneumonia **Self-**

Assessment: How often are ED physicians ordering IDSA/ATS recommended antibiotics for patients with healthcare-associated pneumonia?

12:20

Room A

CCM

ABSTRACT REPRODUCTION FORM

TIME-DEPENDENT EVALUATION OF RESPIRATORY CULTURE SUSCEPTIBILITIES IN THE INTENSIVE CARE TRAUMA POPULATION
Jessica Brown; Kimberly Clark; Benjamin Manning; Fady Nassif; Anna Cass
Greenville Hospital System PGY2 Critical Care - Greenville, SC

Purpose/Background: Appropriate empiric antibiotic therapy for pneumonia is critical for successful patient outcomes and should target the most likely pathogens without inducing resistance. The trauma population has unique characteristics that influence the time of onset and susceptibilities of likely pathogens. This study compared the proportion of respiratory cultures susceptible to community-acquired pneumonia (CAP) empiric coverage across hospitalization days to determine if this coverage could be instituted for a longer period of time in the trauma intensive care population.

Methodology: Patients with an intensive care unit admission for trauma greater than or equal to 18 years of age with a positive respiratory culture were included in this IRB-approved study. Exclusion criteria included recent hospitalization within the last 6 months, death within 48 hours, or initial admission to an outside hospital. The primary outcome was the percent of respiratory cultures susceptible to CAP empiric coverage at less than 3 days, 3 to 6 days, and greater than or equal to 7 days. Secondary outcomes were intensive care unit and hospital length of stay, duration of mechanical ventilation, and all-cause mortality. Descriptive statistics were used to analyze outcomes and a multivariate logistic regression analysis was performed to assess the influence of risk factors on the outcome of susceptibility to CAP empiric coverage.

Results:

Conclusions:

Presentation Objective: Assess respiratory culture susceptibilities in trauma intensive care patients for determination of optimal empiric coverage. **Self-Assessment:** Can CAP empiric coverage be instituted for a longer period of time in the trauma intensive care population?

12:20

Room B

CCM

ABSTRACT REPRODUCTION FORM

EVALUATION OF CURRENT TREATMENT STRATEGIES AND OUTCOMES FOR VANCOMYCIN RESISTANT ENTEROCOCCUS BACTEREMIA INFECTIONS
Ashley Bolling, Paul Lewis, Kirsten F. Parker
Johnson City Medical Center - Johnson City, TN

Purpose/Background: To characterize patients with vancomycin resistant enterococcus (VRE) bacteremia in our community hospital.

Methodology: All patients with at least one positive blood culture for VRE who were age e 18 years and on antibiotics were included. A retrospective chart review from January 2010 to December 2010 was conducted to collect information regarding VRE sensitivities, initial therapeutic regimens, time to blood sterilization, time to normalization of white blood cells (WBC), length of therapy, and number of treatment failures. Treatment failure was defined as death or treatment change due to lack of response. Descriptive statistics were used to evaluate the data. This study was approved by IRB prior to initiation.

Results: Twenty two patients were identified and twenty were included. Fifteen patients received daptomycin and five received linezolid as initial treatment. Nineteen isolates were E. faecium and one was E. gallinarum. Ninety percent of patients had central intravascular catheters, 55 % had recent hospitalization and/or antibiotics within the last three months, and 35% were on dialysis. The median duration of treatment was 17 days. Fifty percent of patients experienced treatment failure. Of these patients, ninety percent had a central catheter, 70 % had a recent hospitalization, and 40 % were dialysis.

Conclusions: Treatment of VRE bacteremia remains a challenging problem. Further research is needed to determine the most effective treatment option for VRE bacteremia.

Presentation Objective: Describe common characteristics of patients with VRE bacteremia.

Self-Assessment: What are the limitations of the current treatment options for VRE bacteremia?

12:20

Room C

ID

ABSTRACT REPRODUCTION FORM

DEVELOPMENT AND IMPLEMENTATION OF AN INPATIENT VANCOMYCIN PROTOCOL AT THE W.G. HEFNER VETERANS AFFAIRS MEDICAL CENTER
Mary Roswarski, Teresa Anderson, Noushin Aminjavahery
Salisbury VA Medical Center - Salisbury, NC

Purpose/Background: In 2009, a consensus review was published for the dosing and monitoring of vancomycin therapy. We plan to create and implement a vancomycin dosing protocol consistent with updated guidelines. This protocol will be used as the framework to develop a CPOE order set for the management of IV vancomycin at our institution.

Methodology: The initial step of this project will be to review the 2009 guidelines to determine key elements to include in our protocol. Protocols from other institutions will be gathered and reviewed in order to assess current practices at a variety of institutions. Next, we plan to develop a written protocol based on the results of our review process. The written protocol will include the following elements: review of patient specific data, selection of appropriate dosing interval, initial dosing recommendations, loading dose calculation (if indicated), maintenance dose calculation and laboratory monitoring recommendations. A CPOE set based on the protocol will be constructed. The protocol and order set will be reviewed and approved by internal committees. Physician and pharmacist education will be developed and conducted prior to implementation. Anonymous pre and post testing will be conducted to assess knowledge of current recommendations and to evaluate the impact of educational sessions on pharmacists' competency.

Results:

Conclusions:

Presentation Objective: To review the creation and implementation of a vancomycin antimicrobial therapy protocol and a prescriber order set that reflects current published guidelines. **Self-Assessment:** What minimum vancomycin serum trough concentration should be maintained to avoid the development of resistance?

12:20

Room D

ID

ABSTRACT REPRODUCTION FORM

EVALUATION OF GRANULOCYTE-COLONY STIMULATING FACTOR PROPHYLAXIS IN ADULT CANCER PATIENTS ADMITTED WITH FEBRILE NEUTROPENIA

Neelam K. Patel, Miranda Lin, Michael J. Melroy, W. Klugh Kennedy
Memorial University Medical Center - Savannah, GA

Purpose/Background: Febrile neutropenia is one of the most serious side effects of myelosuppressive chemotherapy in cancer patients and is associated with increased hospital costs and treatment delays. The prophylactic use of granulocyte-colony stimulating factors (G-CSFs) in patients undergoing myelosuppressive chemotherapy has been shown to reduce the risk, severity, and duration of febrile neutropenia in several cancer types. Current guidelines recommend that patients who receive chemotherapy regimens with a >20% chance of developing febrile neutropenia should receive primary prophylaxis with G-CSFs. No primary prophylaxis is recommended with regimens with a <10% risk. The purpose of this study is to evaluate the use of G-CSFs in adult patients with cancer admitted to Memorial University Medical Center (MUMC) with febrile neutropenia. Length of stay will also be assessed.

Methodology: A retrospective medical record review will be conducted from January 2007 to December 2010 identifying patients with a diagnosis of febrile neutropenia who were treated with chemotherapy at MUMC, Anderson Cancer Institute, or Summit Cancer Care. Patients under the age of 18 and patients diagnosed with acute myeloid leukemia and chronic myeloid leukemia will be excluded from the study. Results will be analyzed and reported using descriptive statistics.

Results:

Conclusions:

Presentation Objective: Evaluate prophylactic use of G-CSFs in adult cancer patients in accordance to NCCN guidelines. **Self-Assessment:** Are G-CSFs being used in accordance to NCCN guidelines for prophylaxis in cancer patients who are admitted to Memorial for febrile neutropenia?

12:20

Room G

ONC

ABSTRACT REPRODUCTION FORM

EVALUATION OF THE CLINICAL AND ECONOMIC EFFECTS OF A PHARMACIST'S INTERVENTIONS IN HOME-BASED PRIMARY CARE VETERANS

Anne Parnell, Sharon Castle, Christina Clarke, Tara Beldner
Ralph H. Johnson VA Medical Center - Charleston, SC

Purpose/Background: Home Based Primary Care (HBPC) patients range from the frail elderly to those suffering from a chronic disabling disease with limited mobility. All patients have one thing in common; they are unable to leave their homes without assistance. Services include disease state management, rehabilitation, palliative care, and overall coordination of care. The treatment of these patients is provided by a physician led team that includes a nurse, a social worker, a physical therapist, a dietician, a psychologist, and a pharmacist. The pharmacist is responsible for conducting initial and quarterly medication therapy assessments, educating Veterans and other members of the team about the proper use of medications, and participating in HBPC patient care team conferences. The purpose of this study is to provide a descriptive analysis of the pharmacist's interventions within the HBPC team.

Methodology: In this retrospective observational chart review, a computer generated report will be utilized to identify patients followed by a clinical pharmacist from January 2009 to January 2011. Data will be collected until 120 patients are included. The primary aim of the study is to evaluate the HBPC pharmacist's recommendations, calculate the acceptance rate of the recommendations, grade the clinical significance, and to estimate the economic impact of the intervention. The evaluation will also examine and classify the types and frequencies of the recommendations.

Results:

Conclusions:

Presentation Objective: To describe the clinical and economic effects of a pharmacist's interventions in HBPC patients. **Self-Assessment:** What is the economic impact of a pharmacist on the HBPC team?

12:20

Room H

GER

ABSTRACT REPRODUCTION FORM

IS CMV SEROSTATUS TRULY A RISK FACTOR FOR THE DEVELOPMENT OF CMV INFECTION IN LIVER TRANSPLANTATION?

Sarah Tischer, Holly Barrier, Dave Taber, Nicole Pilch
Medical University Of South Carolina - Charleston, SC

Purpose/Background: CMV serostatus (D+/R-) is considered the most important risk factor for developing CMV infection across all organ types. There is limited data investigating this in liver transplantation (LTX). The aim of this study was to determine the overall incidence of CMV infection in LTX comparing high risk (D+/R-) to others.

Methodology: Retrospective analysis of LTX patients evaluating the incidence and severity of CMV infection. Patients were excluded if <18 years of age, multi-organ transplant, or death/graft loss or loss to follow up within 6 months of LTX and grouped based on serostatus (D+/R- vs. all others). Late CMV was defined as occurring >179 days.

Results: 400 patients met inclusion criteria. Baseline characteristics were similar between groups except there were less females in the D+/R- group. There were 45 cases of CMV infection with no significant differences among CMV serostatuses. There were no differences in clinical outcomes in the two groups. Multivariate analysis demonstrated baseline immunosuppression and development of rejection were the most important determinants for the development of CMV infection. CMV serostatus was not independently associated with risk of CMV infection.

Conclusions: In LTX patients, this study demonstrated a low overall incidence of CMV infection. CMV serostatus may be less important in determining CMV infection as compared to immunosuppressant regimens and development of rejection.

Presentation Objective: To determine the overall incidence of CMV infection in LTX comparing high risk (D+/R-) to all others. **Self-Assessment:** What are potential risk factors for the development of CMV infection post LTX?

12:20

Room I

TRP

ABSTRACT REPRODUCTION FORM

IMPACT OF OBESITY ON INITIAL WARFARIN DOSING

Mansi Sheth, Kris Bedenbaugh, Amy Woodhouse
Wellstar Kennestone Hospital - Marietta, GA

Purpose/Background: Determine if obese patients started on warfarin therapy require a higher daily dose and/or take longer to achieve a therapeutic INR than non-obese patients.

Methodology: A retrospective audit was conducted on medical records for inpatients on the warfarin pharmacy dosing consult service. Patients were enrolled into a non-obese group, defined as a BMI less than 30 kg/m², or an obese group, defined as a BMI greater than or equal to 30 kg/m². Eligible patients were naive to warfarin therapy. Patients were excluded if they concurrently received medications highly probable to interact with warfarin or if they had documented disease states known to interact with warfarin therapy, as outlined in the ACCP guidelines. The daily dose of warfarin and the number of days of warfarin therapy needed to achieve a therapeutic INR were recorded.

Results: 31 patients were enrolled into each arm of the study. The average daily warfarin dose was 5.43 mg/day in the non-obese group compared to 6.81 mg/day in the obese group. The average time to therapeutic INR was approximately 3.9 days in the non-obese group and 4.4 days in the obese group.

Conclusions: We observed that patients with a BMI greater than or equal to 30 kg/m² required a higher average daily warfarin dose and took longer to achieve a therapeutic INR than patients with a BMI less than 30 kg/m².

Presentation Objective: Describe the effects of obesity on initial warfarin dosing and time to therapeutic INR. **Self-Assessment:** List five factors which can affect initial warfarin dosing.

12:20

Room J

IM

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

ASSESSING THE APPROPRIATE USE OF PROTON PUMP INHIBITORS PRESCRIBED IN A VETERAN OUTPATIENT POPULATION

Marsha Dangler, Leslie Ochs, Katherine Anderson, And Ann Hylton
James H. Quillen VA Medical Center PGY1 - Mountain Home, TN

Purpose/Background: Proton pump inhibitor (PPI) therapy has been proven to be effective in the treatment of gastroesophageal reflux disease (GERD) and erosive esophagitis when compared to histamine-2 receptor antagonists. However, the overuse of this therapy can impact patient care by increasing the risk of clostridium difficile infections, community acquired pneumonia, and spine and wrist fracture. The primary outcome of this study is to assess the incidence of inappropriately prescribed PPI prescriptions in an outpatient clinic population. A secondary outcome will assess the cost associated with providing inappropriately prescribed PPI therapy to our veteran population.

Methodology: A retrospective chart review will be conducted using a non-deceased outpatient population prescribed a PPI from April 1, 2010 to October 1, 2010 meeting inclusion/exclusion criteria. Patients charts will be reviewed to determine the PPI therapy prescribed, dose and frequency, indication for PPI use, prescribing provider specialty, duration of therapy, documentation of therapy follow-up, and potential drug-drug interactions with PPI therapy.

Results:

Conclusions:

Presentation Objective: Following evidence based prescribing guidelines, describe the appropriate use of PPI therapy. **Self-Assessment:** How can health care providers assist in maximizing the appropriate use of PPI therapy?

12:20

OLY 1

MUS

COMPARISON OF TELECOMMUNICATION-BASED AND IN-PERSON HOSPITAL DISCHARGE COUNSELING

Dana Alkire, Camaro West-Lee And Emily Dierlam
Bay Pines VA Medical Center - Bay Pines, FL

Purpose/Background: A quick and thorough discharge process is an important factor for patient satisfaction in their hospital stay. It is estimated that 30% of discharges are delayed for non-medical reasons including pharmacy services.

The purpose of adequate discharge counseling by the pharmacist is to bridge the gap between hospital and home. This ensures that the veteran has a thorough understanding of his medications. One in five hospital discharges result in adverse events within three weeks of discharge and two-thirds of those are medication related.

The purpose of this project is to evaluate the efficiency and effectiveness of the current discharge medication distribution process versus a nontraditional telecommunication process implemented this year.

Methodology: Veterans discharged from the hospital who were counseled on their medications via phone and in person were contacted and patient satisfaction was assessed. Patients surveyed were from units throughout the hospital and were discharged at various times throughout the day.

The current discharge medication distribution process was also evaluated. The number of patients who failed to pick up discharge medication from the pharmacy and the unit of the hospital they were discharged from was recorded. In addition the prescriptions left were classified to determine the number of new and or time sensitive medications.

Results:

Conclusions:

Presentation Objective: To compare various methods of patient counseling and determine patient satisfaction within the different alternatives. **Self-Assessment:** What portion of patients discharged from the hospital report a medication related adverse event within three weeks?

12:20

OLY 2

ADM

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

CLINICAL PHARMACY SERVICES IN THE MEDICAL HOME

Allyse Chandler, Benjamin Gross, Jeff Lewis, Joni Foard
University Of Tennessee/Holston Medical Group - Kingsport, TN

Purpose/Background: Patients enrolled in the Patient Centered Medical Home have better access to healthcare through a multi-disciplinary team-based approach by providing different sources of care. The purpose of the study is to retrospectively assess the efficacy of clinical pharmacy services by evaluating the treatment outcomes of type I and type II diabetic patients enrolled into the Patient Centered Medical Home.

Methodology: Baseline data points such as Hemoglobin A1c, blood pressure, total cholesterol, low density lipoprotein, high density lipoprotein, triglycerides, microalbumin to creatinine ratio, and complete metabolic panel will be collected using the patients electronic medical record to indicate changes since being managed by a clinical pharmacist. Only patients 18 years and older will be included in the study who have been seen at least one time during the months of January 1, 2010 and November 30, 2010 by a pharmacist.

Results: The results of this study are pending.

Conclusions: Conclusion to follow completion of study results.

Presentation Objective: Assess the efficacy of clinical pharmacy services in patients treated in the Patient Centered Medical Home. **Self-Assessment:** What are some parameters used to assess how the patients laboratory values have changed since being managed by a clinical pharmacist?

12:20

PARTH 1

AMB

THE STROKE BRIDGE CLINIC-PHARMACIST S ROLE IN MEDICATION UTILIZATION FOR NEWLY DIAGNOSED STROKE AND COMPLICATED TIA PATIENTS

Laura Bruner
Forsyth Medical Center - Winston-Salem, NC

Purpose/Background: Provide a medication review and education to newly diagnosed stroke or complicated transient ischemic attack (TIA) patient following their hospital admission to prevent readmission

Methodology: Eligible patients were those seen in The Stroke Bridge Clinic (SBC) from October 20, 2010 through December 29, 2010 following their inpatient discharge for stroke and complicated TIA. Pharmacists documented interventions while the patient was in the clinic. Patients were then followed up for 30-day readmission rates at the hospital and compared to those of the previous 9 months.

Results: 89 patients made appointments. 72 patients kept their appointment and were seen by the pharmacist in the clinic. The patients took an average of 9 medications and pharmacists made an average of 4 interventions per patient including medication regimen recommendations and patient education. 2.2% of patients seen in the clinic were readmitted within 30-days for any cause compared to 6.3% of patients admitted the previous 9 months.

Conclusions: Pharmacist interventions were common in patients seen at SBC and SBC has a positive effect on the 30-day readmission rates.

Presentation Objective: Define the role of a pharmacist in optimizing the health of stroke patients. **Self-Assessment:** What is one area pharmacists can impact to prevent readmission for stroke?

12:20

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

EVALUATION OF ELECTROLYTE MANAGEMENT IN PARENTERAL NUTRITION PATIENTS AT RISK FOR REFEEDING SYNDROME

Julie Boatright, Hal Richards
St. Joseph's/Candler Health Systems - Savannah, GA

Purpose/Background: Refeeding syndrome results from fluid and electrolyte shifts following the initiation of nutrition to starved/malnourished patients. The primary electrolytes affected are phosphorus, potassium, and magnesium. There are current variations in practice at St. Joseph s/Candler of giving bolus(es) proactively to prevent or reactively to treat refeeding syndrome and the parenteral nutrition formula supplementation of these electrolytes.

Methodology: A retrospective chart review has been conducted for a 12 month period. Eligible patients are those on parenteral nutrition who are e 18 years of age with risk factor(s) for refeeding syndrome and one or more normal serum levels of phosphorus, potassium, or magnesium on initiation. Excluded patients are those on parenteral nutrition for only 24 hours and a GFR of < 60 ml/min on initiation. The primary outcome measure is the incidence of hypophosphatemia, hypokalemia, and/or hypomagnesemia in the first 7 days of parenteral nutrition therapy. The secondary outcome measures are the determination of current intravenous bolus practices in parenteral nutrition management of patients at risk for refeeding syndrome and the amount of phosphate, potassium, and magnesium supplementation in the parenteral nutrition formula.

Results:

Conclusions:

Presentation Objective: Determine the incidence of hypophosphatemia, hypokalemia, and/or hypomagnesemia in the first 7 days of parenteral nutrition for patients at risk for refeeding syndrome. **Self-Assessment:** How does giving phosphate, potassium, and/or magnesium bolus(es) proactively affect the current management of parenteral nutrition?

2:00

Room A

CCM

ABSTRACT REPRODUCTION FORM

CAUSES OF HYPOGLYCEMIA IN CRITICALLY ILL PATIENTS AFTER TRANSITION FROM AN INTRAVENOUS TO A SUBCUTANEOUS INSULIN REGIMEN

Kimberley Harris, Nichole Allen, Kelly Rafferty
Pitt County Memorial Hospital - Greenville, NC

Purpose/Background: The debate between intensive and conventional insulin therapy in critically ill patients has been studied at length. The primary safety concern with intensive insulin therapy is the increased rate of hypoglycemia without a clear mortality benefit to justify its use. There is limited data on the level of glycemic control in critically ill patients after transition from an intravenous insulin protocol to a subcutaneous insulin regimen. This study evaluates the incidence and potential causes of hypoglycemic episodes during the transition period in a population of surgical intensive care unit patients.

Methodology: A single-center, retrospective chart review was conducted of all adult inpatients that were initiated on an insulin drip protocol in the surgical intensive care unit and transitioned to subcutaneous insulin between February 2009 and September 2010. Data collected include patient demographics, rate of hypoglycemia with intravenous insulin, rate of hypoglycemia with subcutaneous insulin, blood glucose measurements with subcutaneous insulin, and process-related factors that may have contributed to hypoglycemia as documented in the medical record.

Results:

Conclusions:

Presentation Objective: Identify factors that may contribute to hypoglycemia in the critically ill patient once transitioned from an intravenous to a subcutaneous insulin regimen. **Self-Assessment:** What is the most prevalent factor associated with hypoglycemia in the critically ill patient once transitioned to a subcutaneous insulin regimen?

2:00

Room B

CCM

ABSTRACT REPRODUCTION FORM

ASSESSMENT OF IMPLEMENTATION OF A CLINICAL DECISION SUPPORT SOFTWARE SYSTEM IN IMPROVING ANTIMICROBIAL UTILIZATION.

Matthew Lambie; William Terneus; Joe Mendes; Nisha Mathew; Robb McGory
Indian River Medical Center - Vero Beach, FL

Purpose/Background: Guidelines published by the IDSA in 2007 suggest that, by incorporating patient-specific data, clinical decision support software (CDSS) can improve antimicrobial selection. The guidelines also state that computer based surveillance can more efficiently target antimicrobial interventions, track resistance, and identify nosocomial infections and ADRs. CDSS is able to incorporate a patient s eMAR with laboratory data. The software can then alert a clinician to potential medication therapy problems which may require intervention.

Methodology: The study will be conducted in two stages. The first stage will involve retrospective review of data previously collected. This data will be examined to identify patient cases who presented opportunities for pharmacist interventions including culture/sensitivity mismatch, opportunities to deescalate, and identification of untreated positive cultures. These cases will then be reviewed to determine the time it takes to make the appropriate adjustment.

During the second stage the investigator will use CDSS to identify opportunities for the previously mentioned interventions. These interventions will be communicated to the attending physician either through a phone call or through an informal note left in the patient s chart. The investigator will then follow these cases and determine the time to implementation of the recommendation. Additionally, a cost avoidance analysis will be performed of the accepted interventions.

Results:

Conclusions:

Presentation Objective: Formulate a method for evaluating the implementation of a CDSS system. **Self-Assessment:** Clinical decision support software can assist the clinician to do which of the following?

- A)Target interventions
 - B)Prevent ADRs
 - C)Track resistance
 - D)All of the above
- lambie.matthew@irmc.ccc

2:00

Room C

ID

ABSTRACT REPRODUCTION FORM

DEVELOPMENT OF A SCORING SYSTEM FOR THE USE OF PRE-EMPTIVE ANTIFUNGAL THERAPY FOR PATIENTS IN THE INTENSIVE CARE UNIT

Amanda Zomp, P. Brandon Bookstaver, April Miller, Celeste Rudisill
Palmetto Health Richland PGY1 Pharmacy - Columbia, SC

Purpose/Background: Despite new antifungal therapy, invasive Candidiasis is associated with significant morbidity and mortality. Pre-emptive antifungal therapy to prevent Candida infection may be beneficial for high-risk intensive care unit (ICU) patients. The primary objective is to develop a risk factor assessment scoring system to identify these patients.

Methodology: The Institutional Review Board has approved this case control, retrospective, observational study. Cases are subjects with Candidiasis, matched to controls based on age, ICU, and admission diagnosis. The primary objective, developing a scoring system, will be accomplished through analysis of the possible risk factors using logistic regression. Secondary endpoints are to compare mortality, length of stay, and overall cost between cases and controls. After the scoring system is developed, a point prevalence analysis will be conducted on a subset of patients to determine the feasibility.

Results: The interim study population (n=31) is 55 percent male, average age 61, primarily admitted to the medical or surgical ICU with blood or abdominal infection. The most prevalent risk factors are broad-spectrum antibiotics, mechanical ventilation, the presence of a central venous catheter, colonization with Candida, insulin therapy, and a gastrointestinal procedure. The average mortality and length of stay is 32 percent and 20 days, respectively.

Conclusions: The significant risk factors will be used to develop a scoring system for use of pre-emptive antifungal therapy. Appropriate use of pre-emptive therapy may decrease adverse outcomes.

Presentation Objective: Describe the rationale for and appropriate use of pre-emptive antifungal therapy. **Self-Assessment:** What is the reasoning behind pre-emptive antifungal therapy?

2:00

Room D

ID

ABSTRACT REPRODUCTION FORM

ASSESSMENT OF A NEONATAL ABSTINENCE TREATMENT STANDARDIZATION IN A LEVEL III NICU

Emily Holley, Robin Mottern, Ashley Huff, Kirsten Fanning Parker
Johnson City Medical Center - Johnson City, TN

Purpose/Background: Determine the impact of treatment standardization on Finnegan scores and length of stay. Determine the Finnegan scores of neonates exposed to buprenorphine in utero as compared to other opioids. Buprenorphine use is increasing for prenatal opioid abuse maintenance therapy, and the quality and severity of neonatal abstinence may differ in these patients.

Methodology: The study was submitted for IRB approval. A retrospective pre- and post-standardization observational study design will be used. Eligible participants are those <1 month of age with a diagnosis of Neonatal Abstinence Syndrome, and were identified using the electronic medical record. Data will be collected over a six-month period. A multidisciplinary quality improvement project regarding treatment standardization was initiated, and efficacy of this project and standardization will be determined by comparing Finnegan scores and lengths of stay.

Results: Eight patients met inclusion criteria for Phase 1, pre-intervention. The median Finnegan score was 8, (range 2-24). The mean length of stay was 27.25 days, (range 12-54). All patients received oral morphine, and one patient also received oral methadone. Six (75%) patients were exposed to buprenorphine in utero with a median Finnegan score of 8, (range 2-24). Three patients had comorbidities including small for gestational age, respiratory distress syndrome, and congenital malformations. Phase 2, post-intervention, is anticipated to be completed in April 2011.

Conclusions:

Presentation Objective: List the pharmacological agents that have been used in the treatment of Neonatal Abstinence Syndrome. **Self-Assessment:** What class of medications is most effective in the treatment of Neonatal Abstinence Syndrome?

2:00

Room G

PED

ABSTRACT REPRODUCTION FORM

EVALUATION OF MEDICATION RECALLS POSTED ON THE FDA ENFORCEMENT REPORTS FROM JANUARY 2008 TO DECEMBER 2010

Julie Bosler, Terri M. Wensel, Maisha Kelly Freeman, Dan Halberg
Samford University - Birmingham, AL

Purpose/Background: Medication recalls involve an array of issues concerning the quality and safety of drug manufacturing. Systematic investigations evaluating medication recalls in the United States (U.S.) are lacking. The purpose of this study was to evaluate characteristics of recalled medications in the U.S. to determine if there are any trends among the recalled medications.

Methodology: This study is a retrospective, observational evaluation of prescription-only (Rx) and over-the-counter (OTC) medication recalls in the U.S. posted on the FDA enforcement reports from January 2008 to December 2010. Captured medication recall data included: name of medication, recalling manufacturer, recall classification and rationale, Rx or OTC status, and recall of full or partial lots. Statistical analysis was performed for variables of interest to determine if there was a difference in recall variables.

Results:

Conclusions:

Presentation Objective: Discuss trends among medication recalls in the United States. **Self-Assessment:** What are the clinical implications of medication recalls with regards to public health?

2:00

Room H

DI

ABSTRACT REPRODUCTION FORM

METHODS TO PREDICT PATIENTS AT RISK FOR NON-ADHERENCE: A HEALTH LITERACY ASSESSMENT

Amanda Dubil, John Howard, Jun Wu, Carla Coble
Greenville Hospital System PGY1 - Greenville, SC

Purpose/Background: Health literacy is defined as the degree which individuals have the capacity to obtain, process, and understand basic health information and services required to make health decisions. Limited health literacy is associated with decreased knowledge of one's medical condition, non-adherence to treatment plans, poor self care behaviors, increased hospitalizations and increased mortality. Objective tools to measure health literacy have been used in research to identify patients with limited health literacy. Currently, Greenville Memorial Medical Center is not using any objective test to identify patients with limited health literacy.

Methodology: This study compares and evaluates the use of the following objective assessment tools to evaluate health literacy levels: Rapid Estimate of Adult Literacy in Medicine-Short Form, Newest Vital Sign, and Modified Morisky Scale. Patients admitted to the internal medicine service or unit 4C were enrolled in the study based on eligibility criteria. The purpose of the study was to determine if health literacy level effects medication adherence as measured from pharmacy refill records and to examine which tool most accurately predicts this association. By examining the relationship between health literacy and adherence, efforts could be focused on patients who may benefit the most from educational interventions. Secondary outcomes included emergency room visits and hospital readmission at 30 days.

Results:

Conclusions:

Presentation Objective: Discuss how a patient's health literacy level effects utilization of healthcare resources. **Self-Assessment:** What validated tools help pharmacists identify patients with low health literacy levels?

2:00

Room I

IM

ABSTRACT REPRODUCTION FORM

WARFARIN PATIENTS READMITTED TO A TERTIARY CARE HOSPITAL WITH AN ELEVATED INR ASSOCIATED WITH ANTI-INFECTIVE USE

Jacob Schwarz, Macie Hudson, Georgia Keriazes
Lakeland Regional Medical Center - Lakeland, FL

Purpose/Background: To evaluate the possible association of interacting anti-infective use and hospital readmissions in patients taking warfarin.

Methodology: This was a retrospective study from August 1st, 2008 July 31st 2010. All patients readmitted within 15 days of a prior admission with an international normalized ratio (INR) ≥ 4 and who were taking warfarin prior to readmission were included in this study. An electronic chart review was conducted on eligible patients to evaluate association of the use of interacting anti-infectives and an elevated INR upon readmission.

Results: There were 200 patients included in this IRB-approved study. Of these patients a total of 59 patients (29.5%) were previously discharged on anti-infective medications with known interactions to warfarin. The number of incidences of bleeding in this study was a total of 29 patients (14.5%) from the original 200, with 5 of these patients (17.2%) having been previously discharged on anti-infective medication.

Conclusions: Drug-drug interactions (DDIs) with anti-infectives were found in 29.5% of warfarin patients who were readmitted to the hospital within 15 days of discharge with supratherapeutic INRs. This study identified a significant number of potentially preventable readmissions due to DDI s with short-term prescriptions of anti-infectives.

Presentation Objective: Discuss the possible association of anti-infective use and readmission rates for patients taking warfarin. **Self-Assessment:** What can be done to possibly lower the rate of readmissions of patients who are taking these interacting anti-infectives?

2:00

Room J

IM

ABSTRACT REPRODUCTION FORM

DEVELOPMENT AND IMPLEMENTATION OF A HYDROMORPHONE DOSE INTERCHANGE PROCESS IN A COMMUNITY HOSPITAL

Suzanne Morrow And Michele Durda
Huntsville Hospital - Huntsville, AL

Purpose/Background: A higher rate of adverse drug reactions occurs with HYDROMORPHONE compared to other opiates secondary to decreased clinician experience with HYDROMORPHONE versus morphine and unfamiliarity with HYDROMORPHONE dose potency. The purpose of this project is to reduce excessive initial dosing of IV HYDROMORPHONE in adult non-ICU patients and to increase patient safety and decrease the risk of serious or life-threatening respiratory depression.

Methodology: A P&T approved HYDROMORPHONE interchange process was implemented for eligible HYDROMORPHONE orders. Orders were eligible for interchange if they did not meet any of the following exclusion criteria: PCA orders, patients <19 years old, ICU patients, patients in procedural areas or the ED, physician writes no substitution, current active IV HYDROMORPHONE order that has been administered, orders written for doses of 1 mg or less. If no exclusion criteria existed, the pharmacist interchanged the dose to HYDROMORPHONE 0.5 1 mg IVP at the same dosing interval as the original order. Eligible HYDROMORPHONE orders were assessed for average HYDROMORPHONE dosing 30 days pre- and post-implementation of the interchange process.

Results:

Conclusions:

Presentation Objective: To describe the risk of preventable adverse drug reactions associated with inappropriate HYDROMORPHONE dosing. To describe the implementation of a HYDROMORPHONE safety initiative in a community hospital. **Self-Assessment:** A dose of 2 mg of IV HYDROMORPHONE is equivalent to approximately how many milligrams of IV morphine?

2:00

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

QUALITY IMPROVEMENT INITIATIVE TO ENHANCE DISCHARGE MEDICATION UTILIZATION FOR UNFUNDED PATIENTS

Amy Talmage, Minh-Tri Duong, Maja Gift, Ramon Docobo, David Nguyen
Tampa General Hospital - Tampa, FL

Purpose/Background: Tampa General Hospital (TGH) is a safety net hospital with a program, called the Safe Ways for Alternative Treatment (SWAT) program. The program provides medication and other healthcare services to facilitate continuity of care upon discharge for unfunded patients. TGH had not formally evaluated the SWAT program prior to this study. Study objectives include evaluating medications provided through the SWAT program to identify future cost containment strategies and the pharmacy department's current workflows used to mitigate medication expenses.

Methodology: This retrospective quality improvement initiative is approved by the Institutional Review Board. Data collection will be completed over an 8 month period using the outpatient pharmacy database. Reported outcome parameters include patient demographics, care providers involved, nursing units of discharge, medication types, costs, and current workflows to mitigate costs. Cost containment strategies will be identified and developed.

Results: 2,702 patients were provided medications through the SWAT program with over 11,000 prescriptions written between May 2010 and December 2010. The top 10 most costly prescriptions were enoxaparin, valganciclovir, linezolid, sildenafil, insulin glargine, tacrolimus, voriconazole, fondaparinux, glucose test strips, and temozolomide. Of these, approximately 35% are attributed to the transplant population. Additional results to be reported.

Conclusions:

Presentation Objective: Identify opportunities for mitigating medication-related costs of a discharge program for unfunded patients. **Self-Assessment:** What strategies can be developed to help minimize costs related to the SWAT program?

2:00

OLY 2

ADM

ABSTRACT REPRODUCTION FORM

ASSESSMENT OF PRESCRIBER'S KNOWLEDGE OF THE COST OF MEDICATIONS

Brittany Cogdill, Jean Nappi
Medical University Of South Carolina - Charleston, SC

Purpose/Background: In 2003, the World Health Organization reported 50% of patients are compliant with long-term therapies. Frequently, the reason for a patient's non-adherence is the cost of medications. Even if covered by prescription insurance, patients may not be able to afford their medication. We sought to assess prescriber knowledge of commonly prescribed medications including Actos, Lipitor, Seroquel, Levaquin, Cozaar, Protonix, and Neurontin.

Methodology: One hundred prescribers from the Medical University of South Carolina were surveyed from November 2010 to January 2011. Prescribers consisted of medical residents, attending physicians, fellows, nurse practitioners, and physician's assistants. Wholesale prices of medications were determined using the Red Book and insurance prices from an average of the top three insurance companies' copayments.

Results: Medical residents made up 72% of those surveyed, fellows 3%, attendings 12%, physician's assistants 3%, and nurse practitioners 10%. Preliminary data show that a majority of the prescribers rarely ask about a patient's insurance status nor consult a discounted medication list before writing a prescription. Data on which group of prescribers knew the correct cost of medications are still being evaluated.

Conclusions:

Presentation Objective: To determine what prescribers believe patients with and without prescription insurance pay for medications.

Self-Assessment: What are some areas in which clinical pharmacists can intervene to ensure that prescribers are choosing medications that are affordable for our patients?

2:00

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

EVALUATION OF INTERVENTIONS ON HOSPITAL READMISSIONS IN A CLINICAL PHARMACIST-LED HEART FAILURE SERVICE IN AN INTEGRATED HEALTH

Adwoa B Darkwa, Teri Laurenti, Rachel Gainsbrugh, Candace McCullough, And M
Kaiser Permanente - Atlanta, GA

Purpose/Background: Heart Failure (HF) is a progressive condition that damages the heart and weakens the cardiovascular system and is often the result of the effects of a myocardial infarction, history of hypertension or congenital heart defects. Guidelines recommend the use of pharmacotherapy for the improvement of symptoms and survival of HF. Treatment with agents such as angiotensin converting enzyme inhibitors (ACEI), beta blockers (BB), and diuretics have been studied and proven to significantly improve symptoms and mortality in addition to reducing hospitalization. The purpose of this study is to assess the overall impact of a clinical pharmacist-led HF service.

Methodology: Patients with a HF-related hospitalization April 1, 2010 to March 31, 2011 will be evaluated in the intervention group to assess 30 and 90 day hospital readmission rates and clinical pharmacists' interventions. Readmission rates of the intervention group will be compared to historical control dates, April 1, 2009 to March 31, 2010, to assess the value of the program. Comprehensive chart reviews of patients with HF-related hospital discharge claims will be used for evaluation. Data collection will include, but not limited to, HF-related hospitalizations within 30 and 90 days of initial discharge, and clinical pharmacist medication optimization interventions.

Results:

Conclusions:

Presentation Objective: Assess the overall impact of a clinical pharmacist-led HF service and their specific interventions on heart failure related readmission rates. **Self-Assessment:** What are four vital counseling points to consider when educating heart failure patients on the signs and symptoms of a heart failure exacerbation?

2:00

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

PROSPECTIVE, OBSERVATIONAL STUDY OF THE MANAGEMENT OF AN INTRAVENOUS INSULIN PROTOCOL IN THE INTENSIVE CARE UNITS.

Donya D. Goodly, Vanessa Jones, Valerie Scarborough
St. Joseph's/Candler Health Systems - Savannah, GA

Purpose/Background: In light of recent studies and the implementation of the Centers for Medicare and Medicaid Services (CMS) standard for cardiovascular surgical patients, St. Joseph s/Candler revised its insulin drip protocol in October of 2009. The revision modeled the Stockton protocol for intravenous insulin therapy for target blood glucose 90 -140 mg/dL. The purpose of this study is to evaluate the application and adequacy of the revised insulin drip protocol on glucose control in critically ill patients admitted to the coronary, neurology, and medical intensive care units.

Methodology: Eligible participants are those 18 years of age and older who were admitted to our community based health system s intensive care units with an order for the intravenous insulin drip. In this study, inpatients were identified via the health-system s software with a filter based on the inclusion criteria. The qualifying patients intravenous insulin drip therapy was evaluated and assessed for adequacy by the clinical pharmacist. The primary endpoint was to evaluate the number of hyperglycemic and hypoglycemic events. Secondary endpoints were to assess the implementation and process of therapy. This assessment was primarily to be performed by reviewing the patient computer generated profile, chart, and any other data collection entities involving the insulin drip therapy as well as interviewing health care professionals involved in the patient s care.

Results:

Conclusions:

Presentation Objective: Discuss the rationale for maintaining glucose levels less than 140mg/dL versus less than 200mg/dL. **Self-Assessment:** Which clinical trial was the basis for the current insulin protocol in use at St. Joseph s/Candler?

2:20

Room A

CCM

ABSTRACT REPRODUCTION FORM

VALIDATION OF A PROPHYLACTIC VANCOMYCIN DOSING REGIMEN FOR SURGICAL LEFT VENTRICULAR ASSIST DEVICE (LVAD) PLACEMENT

Roxana Dumitru, Ian B. Hollis
University Of North Carolina, School Of Pharmacy - Chapel Hill, NC

Purpose/Background: Surgical infection prophylaxis with vancomycin has become the standard of care for placement of Left Ventricular Assist Devices (LVADs). Proper dosing is desirable to ensure circulating drug levels are therapeutic throughout the time period of open incisions in the operating room. No data has been published to date regarding the efficacy of established vancomycin dosing regimens as measured by post-operative drug levels.

Methodology: Adult patients were included if they were recipients of an elective LVAD at UNC hospitals from 01/2008 until 10/2010 and received prophylactic vancomycin therapy just prior to incision. Patients were excluded if they were already receiving vancomycin the day before their surgery for another indication, if they did not have appropriate post-operative serum drug levels drawn or if a discrepancy existed in the documentation of dosages administered between the medication administration record (MAR) and the anesthesia report. Patient records were evaluated retrospectively to determine demographic information, peri-operative renal function and volume status, and vancomycin dosing for pharmacokinetic analysis. Currently at UNC Hospitals, patients receive weight-based vancomycin pre-operatively, at a dose of 2000 mg for > 80 kg, 1500 mg for 60-80 kg and 1000 mg for < 60 kg.

Results: Data analysis is currently ongoing.

Conclusions:

Presentation Objective: To evaluate whether the current weight-based vancomycin dosing protocols in place at UNC Hospitals for the prevention of post-operative LVAD infections are achieving appropriate drug concentrations throughout the duration of the surgical procedure.

Self-Assessment: Contact information: RDumitru@unch.unc.edu

2:20

Room B

CCM

ABSTRACT REPRODUCTION FORM

PROLONGED INFUSION COMPARED TO STANDARD INFUSION CEFEPIME IN THE TREATMENT OF FEBRILE NEUTROPENIA: A PILOT STUDY

David Cluck, Leanne Kennedy, And John Williamson
Wake Forest University Baptist Medical Center - Infectious Disease - Winston-Salem, NC

Purpose/Background: Time above minimum inhibitory concentration (MIC) best correlates with activity of beta lactam antibiotics. Prolonged infusion of beta lactams produces a greater time above the MIC compared with standard infusion. The objective of this study was to determine outcomes associated with prolonged infusion (3 hours) compared to standard infusion (30 minutes) cefepime among patients with febrile neutropenia.

Methodology: This was an IRB-approved, prospective, randomized, pilot study. The study population included patients with febrile neutropenia who were prescribed empiric cefepime. Patients were identified using the electronic medical record. Patients who met the following criteria were included: age greater than or equal to 18, absolute neutrophil count less than 1000 cells/mm³, temperature greater than 38 degrees Celsius, prescribed cefepime 2 grams every 8 hours, and received chemotherapy or stem cell transplant. The following exclusion criteria were applied: allergy to cephalosporins, concurrent anti-gram negative antimicrobials, diagnostic criteria suggestive of sepsis, estimated creatinine clearance less than 50 milliliters/minute, intravenous access making 3-hour infusion impractical, myelodysplastic syndrome or solid tumor malignancy. Patients were randomized to either standard infusion cefepime (30 minutes) or the same dose infused over 3 hours. The primary outcome measure was defervescence by 72 hours. Secondary outcomes included time to defervescence, in-hospital mortality, need for additional antimicrobials, hospital length of stay, and treatment of baseline infection.

Results:

Conclusions:

Presentation Objective: Describe the possible benefit associated with prolonged infusion of beta-lactam antibiotics. **Self-Assessment:** Why might prolonged infusion of beta-lactams provide benefit in a neutropenic host?

2:20

Room C

ID

ABSTRACT REPRODUCTION FORM

EVALUATION OF ANTIMICROBIAL THERAPY FOR VANCOMYCIN RESISTANT ENTEROCOCCAL URINARY TRACT INFECTIONS

Jennifer Hewlett; P. Brandon Bookstaver; Celeste Rudisill; April Miller
Palmetto Health Richland PGY1 Pharmacy - Columbia, SC

Purpose/Background: The incidence of vancomycin-resistant enterococcal (VRE) urinary tract infections (UTIs) has increased. Therapies including daptomycin and linezolid are often prescribed; however, little data exist on alternative and possible effective therapies such as doxycycline and fosfomycin. The primary objective is to describe antimicrobial therapies utilized for VRE UTIs with the secondary objective to evaluate treatment outcomes.

Methodology: Following IRB approval, patients with VRE positive urine cultures were included in this non-interventional, retrospective and concurrent prospective pilot study. Patients on antimicrobials for indications other than a VRE UTI, pregnant, prisoners, and <18 years old were excluded. Subjects were grouped according to antimicrobial administered. E-tests for daptomycin, doxycycline, and fosfomycin susceptibilities were performed. Linezolid and tetracycline susceptibilities, demographic, antimicrobials administered, microbiologic, and urine analysis were collected. The mean and median duration of therapy, total doses, estimated treatment cost, and length of hospitalization between groups will be calculated. Treatment success and failure will be compared and the percent of isolates susceptible to each antimicrobial will be calculated.

Results: Thirty-seven VRE urinary isolates were available. Minimum inhibitory concentration (MIC) distributions were: daptomycin MIC₉₀ =4, linezolid MIC₉₀ =2, fosfomycin MIC₉₀ = 128, doxycycline MIC₉₀ = 24, and nitrofurantoin MIC₉₀ = 256. Isolates susceptibilities were: daptomycin 100%, linezolid 94%, doxycycline 32%, and nitrofurantoin 16%. Data collection is ongoing.

Conclusions: Alternative agents may be effective with VRE UTI s; however, additional data are needed.

Presentation Objective: Describe antimicrobials utilized and susceptibilities for VRE UTI s. **Self-Assessment:** What therapies may be effective in the treatment of VRE UTI s.

2:20

Room D

ID

ABSTRACT REPRODUCTION FORM

VITAMIN A AND DART THERAPY IN THE NEONATAL INTENSIVE CARE UNIT
Dustin Pippin, Amy Holmes
Forsyth Medical Center - Winston-Salem, NC

Purpose/Background: Vitamin A supplementation has been shown to reduce the incidence of chronic lung disease in patients in the neonatal intensive care unit (NICU) that are less than 1000g at birth and require oxygen support. Low dose dexamethasone therapy for oxygen dependent infants, commonly called DART, has been shown to reduce ventilator days in NICU patients. The use of glucocorticoids has been shown to increase serum levels of Vitamin A which may potentially cause Vitamin A toxicity. Clinicians have debated whether to continue or hold Vitamin A supplementation when initiating DART. The current literature does not address this issue. The purpose of this retrospective review was to analyze the data from historic patients on DART therapy and evaluate if discontinuation of Vitamin A therapy affected outcomes.

Methodology: A retrospective chart review was done of all patients in the NICU that received DART therapy and Vitamin A from January 1, 2009 until December 23, 2010. The following information was collected and analyzed: ventilator days, length of stay, chronic lung disease, oxygen requirement at discharge, mortality, total admission cost, and if any Vitamin A toxicity was reported during that stay. These outcomes were compared in patients to evaluate any potential benefit or harm to concurrent DART and Vitamin A therapy.

Results:

Conclusions:

Presentation Objective: To be able to describe the benefits and risks of using Vitamin A and DART therapy in the NICU. **Self-Assessment:** Is there any potential benefit or harm in continuing Vitamin A therapy while on DART?

2:20

Room G

PED

ABSTRACT REPRODUCTION FORM

IMPACT OF SMART PUMP INFUSION TECHNOLOGY ON PREVENTING
ADMINISTRATION ERRORS: A COST-BENEFIT ANALYSIS OF TWO HEALTH
SYSTEMS

Aaron Atkins, Carolyn Williams, Michael Melroy, Ray Maddox, Ken Jozefczyk
South University Drug Information PGY2 - Savannah, GA

Purpose/Background: The Institute of Medicine report Preventing Medication Errors published in 2006 concluded that approximately 1.5 million preventable medication injuries occur each year and each preventable adverse drug event contributes an additional \$8,750 (2006 dollars) to the cost of the hospital stay. Prevention of medication errors often focuses on improvements in the medication use system. A type of technology enhancement commonly employed by institutions to aid in preventing administration errors is the use of intravenous infusion smart pumps. Previous studies have focused on pump implementation processes and intercepted potential adverse drug event rates. The purpose of this study is to analyze potential medication administration errors averted with the use of smart pumps and to quantify the cost-benefit impact in preventing such medication errors.

Methodology: The study is to be conducted as a retrospective analysis of intravenous infusion data obtained from a community health system and an academic medical center over a period of one year. Prevented adverse drug events during administration will be identified by reprogrammed dose data analysis of high-alert drugs with initial programming greater than or equal to two times the maximum dose limit set in the drug library. A total average cost savings associated with preventing the potential medication administration errors will be calculated.

Results:

Conclusions:

Presentation Objective: State the average amount of preventable medication error cost saved per year in a given institution utilizing smart pump infusion technology. **Self-Assessment:** What is the average amount of cost saved with use of smart pump technology?

2:20

Room H

DI

ABSTRACT REPRODUCTION FORM

EVALUATION OF PROTON PUMP INHIBITOR UTILIZATION FOR STRESS ULCER
PROPHYLAXIS

Andy Johnston, Shelley Carruba
Princeton Baptist Medical Center - Birmingham, AL

Purpose/Background: Stress ulcers are a common problem in critically ill patients. Currently an increasing number of patients admitted to hospitals are begun on a proton pump inhibitor (PPI) for stress ulcer prophylaxis (SUP), regardless of indication. Inappropriate use of PPI s poses an opportunity for drug interactions, a possible increased risk for Clostridium difficile infection and nosocomial pneumonia, and can lead to financial burden on both institutions and patients. The purpose of this study was to evaluate current PPI use at our institution and to use physician education to increase appropriate use of PPI s.

Methodology: Medical records of patients prescribed a PPI from September 1, 2010 through October 31, 2010 were reviewed to determine if patients on a PPI had an appropriate indication throughout their hospital stay. Education was then provided to physicians regarding the risk factors for stress ulcers and current FDA approved indications for SUP. Following physician education, patients discharged during the month of March were prospectively followed to see if PPI prescribing patterns for SUP had improved.

Results: Preliminary results showed that of 148 patients reviewed, 57% of PPI use was inappropriate.

Conclusions:

Presentation Objective: To evaluate proton pump inhibitor (PPI) utilization in stress ulcer prophylaxis and to determine if physician education on the appropriate indications for SUP will decrease unnecessary PPI use. **Self-Assessment:** What are the recommended indications for proton pump inhibitor use in stress ulcer prophylaxis?

2:20

Room I

IM

ABSTRACT REPRODUCTION FORM

AN EVALUATION OF TIMELY ECG MONITORING IN VETS TREATED WITH 2ND
GENERATION ANTIPSYCHOTICS AND CONCOMITANT FQ ANTIBIOTICS

Nancy Dinero And Christopher Amerman
Lake City VA Medical Center - Lake City, FL

Purpose/Background: There are an increasing number of non-antiarrhythmic drugs that are known to delay cardiac repolarization and induce torsade de pointes, and at least five of them have been removed from the market over the past few years. Several lists have been published of non-cardiac drugs associated with QT prolongation, and among these include antipsychotic medications and antimicrobial agents, specifically the fluoroquinolone antibiotics. It is unclear whether these lists are based on concrete evidence or empiric data, therefore it is difficult to determine if these pro-arrhythmic effects are a therapeutic class effect or an individual drug effect. This study was designed to evaluate ECG monitoring in veterans receiving a second generation antipsychotic and concomitant fluoroquinolone antibiotic in the inpatient hospital setting.

Methodology: This study was designed as a retrospective chart review of veterans in the NF/SG VA Health System on second generation antipsychotics, hospitalized between January 1, 2008 and December 31, 2009 and initiated on a fluoroquinolone antibiotic. Using the computerized patient record system (CPRS), the patient's dose and frequency of second generation antipsychotic and fluoroquinolone antibiotic, measured QT interval on ECG, and time from initiation of antibiotic therapy to first and second ECG were evaluated.

Results: Pending

Conclusions: Pending

Presentation Objective: To evaluate the rate of electrocardiographic monitoring in veterans receiving a second generation antipsychotic and concomitant fluoroquinolone antibiotic in the inpatient hospital setting. **Self-Assessment:** Why is it important for health care professionals to monitor electrocardiograms in patients receiving second generation antipsychotics in the inpatient setting?

2:20

Room J

IM

ABSTRACT REPRODUCTION FORM

EVALUATION OF THE HOME MEDICATION RECONCILIATION PROCESS IN A COMMUNITY HOSPITAL EMERGENCY DEPARTMENT

Jeremy Ray, Richa Airee, Ann Birkenstock
Huntsville Hospital - Huntsville, AL

Purpose/Background: In recent years there has been a gathering interest in the management of patients' home medications through a home medication reconciliation process. This process is vital for the proper continuation and cessation of current medications for patients visiting the emergency department and patients being admitted or discharged from the hospital.

Methodology: Huntsville Hospital is an 881 bed community hospital that uses the services of Health Care Systems (HCS) to gather information about patients' current home medications. Patients visiting the emergency department will have their third party medication record queried and reported by HCS. The emergency department nursing staff will then review those results with the patient and make any additions or corrections that are necessary. Patients that are subsequently admitted to the hospital will have the process repeated upon admission to a medical unit. The potential for high acuity patients in the emergency department leaves room for errors in the initial reporting of home medications. This evaluation will focus on identifying the number and severity of these errors when comparing the HCS queried data with the reported home medications while in the emergency department and then again while admitted to the hospital. Also, the process of medication reconciliation in the emergency department will be done by pharmacy staff to evaluate if the information gathered in this manner is more accurate.

Results:

Conclusions:

Presentation Objective: Evaluate the medication reconciliation process in the emergency department. **Self-Assessment:** Is it beneficial to have pharmacy staff perform medication reconciliation?

2:20

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

EVALUATING ELIGIBILITY FOR HOME TREATMENT OF UNCOMPLICATED DEEP VEIN THROMBOSIS PRESENTED TO THE EMERGENCY DEPARTMENT

Katie O'Brien, Katelyn Dervay, Minh-Tri Duong
Tampa General Hospital - Tampa, FL

Purpose/Background: The institution's emergency department (ED) is a Level 1 Trauma center caring for over 65,000 patients annually. Patients presenting to the ED for deep vein thrombosis (DVT) are traditionally managed as in-patient admissions. Studies demonstrate it is safe and effective to treat eligible DVT patients at home.

Methodology: This is a retrospective chart review study in a large 988-bed academic teaching hospital. Charts collected will be over a twelve month period of patients presenting to the ED with a code for acute DVT. Inclusion criteria includes patients 18 years and older and patients presenting to the ED with an ICD-9 code admitted to the hospital for treatment during study time period. Exclusion criteria includes prisoners, pregnancy, patients less than 18 years of age, patients with a pulmonary embolism diagnosis, active bleeding, allergy to heparin, pork products or benzyl alcohol, active cancer, recent stroke, current infection or with serum creatinine above three.

Results: Preliminary data shows an average of \$1,021 per day of direct costs per case with a length of stay averaging 6.4 days. Number of patients admitted for DVT treatment eligible for home treatment to be reported.

Conclusions:

Presentation Objective: The primary objective of this study is to assess the eligibility of ED patients with a primary diagnosis of DVT for home treatment. The secondary objective of the study is to determine the potential cost savings by discharging patients for outpatient treatment. **Self-Assessment:** What is the pharmacist's role in evaluating patients eligible for home DVT treatment?

2:20

OLY 2

ADM

ABSTRACT REPRODUCTION FORM

SAFE MEDICATION MANAGEMENT: A PHARMACIST-CENTERED PERFORMANCE IMPROVEMENT INITIATIVE IN THE ORLANDO VAMC DOMICILIARY

Quyen Duong, Khalila Arrington, And Kim Schnacky
Orlando VA Medical Center - Orlando, FL

Purpose/Background: The Orlando VAMC Domiciliary is a housing and rehabilitation program for over sixty Veterans with a history of homelessness, substance abuse, or psychosocial disorders. Via appropriate assessment and patient education, one of the goals of the medical staff for the residents in this program is acquisition of skills for safe self-management of medications. Clinical pharmacy services were recently introduced into the domiciliary as an effort to provide improved patient care related to medication use. This initiative parallels the Safe Medication Management Program in the VA handbook.

Methodology: Through completion of a patient survey followed by an initial session with a clinical pharmacist, the baseline level of skill in medication management for each resident in the domiciliary will be determined. The survey will allow for skill categorization as: dependent, semi-independent, and independent. Each domiciliary patient will receive personalized counseling in areas identified as deficient, in an effort to improve their self medication management skills. A follow-up survey will be utilized at subsequent visits to assess improvements in the resident's ability to manage their medications safely.

Results:

Conclusions:

Presentation Objective: Discuss the impact of clinical pharmacy services on self medication management in the domiciliary. **Self-Assessment:** What are the skills that are critical to safe self medication management that could be improved by pharmacist provided patient education?

2:20

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

EVALUATION OF MEDICATION THERAPY MANAGEMENT PROGRAM (MTMP) IN AN INTEGRATED HEALTH CARE DELIVERY SYSTEM

Puja Patel, Stephanie Roberts, Scott Cooper, Melissa Butler
Kaiser Permanente - Atlanta, GA

Purpose/Background: Medication therapy management programs (MTMP) optimize therapeutic outcomes by improving medication use and reducing adverse drug events. In 2010, Centers for Medicare and Medicaid Services issued a Call Letter that listed patient satisfaction as an outcome that may become a requirement for MTMP. This study is a descriptive cross sectional analysis of patients at Kaiser Permanente of Georgia (KPGA) enrolled in MTMP to evaluate their satisfaction with the program. Correlation with patient satisfaction and the number of initiatives, interventions, and time spent by a pharmacist will also be evaluated.

Methodology: A patient satisfaction survey, along with a cover letter and informed consent, will be mailed to all patients enrolled in the MTMP in the first three Quarters of 2010, with a request to complete the survey within 4 weeks. Reminder letter will be sent at 2 weeks to nonresponders. Lead investigator will identify the time spent and the number of initiatives and interventions made by pharmacists in the identified patients. An intervention will be defined as a change in therapy to improve patient outcome or safety. Initiatives evaluated will include: caregaps, additive adverse effects, renal monitoring, drugs to avoid in the elderly, adherence-non adherence, medmonitor, hosped, LDL, and A1C. The data on interventions, initiatives, and time spent will be obtained from the Concept Unique Identifier report.

Results:

Conclusions:

Presentation Objective: Describe variables that influence patient satisfaction with a medication therapy management program. **Self-Assessment:** What is the correlation between patient satisfaction and the amount of time spent by pharmacist?

2:20

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

RETROSPECTIVE ANALYSIS OF TREATMENT FOR ANGIOTENSIN CONVERTING ENZYME INHIBITOR INDUCED ANGIOEDEMA AT A COMMUNITY HOSPITAL
Joseph McCoy (Mccoyjo@Sjchs.Org), Erica Merritt, Michael Thomas
St. Joseph's/Candler Health Systems - Savannah, GA

Purpose/Background: Angioedema is a spontaneous, vascular reaction involving the deep dermis, subcutaneous or submucosal tissues, representing localized edema caused by dilatation and increased permeability of the capillaries. The role of medications in treating angiotensin converting enzyme inhibitor induced angioedema is controversial. Epinephrine, antihistamines, and corticosteroids are often given to these patients; however, there are no controlled studies that demonstrate efficacy in this setting.

Methodology: A retrospective observational chart analysis of treatment for angiotensin converting enzyme inhibitor induced angioedema with inclusion of any patient who presented to the health system's emergency department within the past ten years (1/1/00 -12/31/10) and identified by ICD-9 code 995.1 (angioneurotic edema). Patients were excluded with a known history of hereditary angioedema, angioedema with urticaria, or angioedema without confirmed use of an angiotensin converting enzyme inhibitor.

Results:

Conclusions:

Presentation Objective: Describe the effectiveness of commonly used medications in the treatment of angiotensin converting enzyme inhibitor induced angioedema. **Self-Assessment:** How can the clinical pharmacist impact pharmacologic treatment choices for angiotensin converting enzyme inhibitor induced angioedema in patients presenting in the emergency department?

2:40

Room A

CCM

ABSTRACT REPRODUCTION FORM

IMPACT OF AN EMERGENCY DEPARTMENT PHARMACIST AT A COMMUNITY-BASED TEACHING HOSPITAL
Daniel De Aroza, Estela Trimino
Palmetto General Hospital - Miami, FL

Purpose/Background: A recent statement published by the American Society of Health-System Pharmacists promotes pharmacy services in the interdisciplinary emergency department (ED) care team and outlines the role of the pharmacist in providing care to the critically ill patient. Pharmacists placed in the ED have the potential to make a large impact on patient care. Potential interventions to be made include but are not limited to appropriate empiric antibiotic selection, renal dosing of medications, and general recommendations on appropriate medication selection. Palmetto General Hospital does not currently staff the ED with a clinical pharmacist. The purpose of this study is to assess the impact of a pharmacist within the ED and to evaluate the variety of therapeutic interventions that can be made to improve patient care.

Methodology: A two-month prospective, nonrandomized study was conducted after approval by the institutional review board. The pharmacy resident was available in the ED four days a week, for a 12 hour shift. Rounds were implemented with an ED physician or medical resident. Patients were evaluated individually for appropriateness of therapy, accuracy of medication reconciliation, height, weight, allergies and admission orders. The pharmacy resident was available to answer any medication related questions asked by patients or ED staff. Interventions made during the study period were recorded in the hospital's electronic computer system.

Results:

Conclusions:

Presentation Objective: To discuss the potential impact of a clinical pharmacist in an emergency department. **Self-Assessment:** What intervention was made most often as a pharmacist in the ED?

2:40

Room B

CCM

ABSTRACT REPRODUCTION FORM

ADEQUACY OF EMPIRIC THERAPY GUIDED BY INSTITUTION SPECIFIC HOSPITAL ACQUIRED PNEUMONIA GUIDELINES
Rebekah Wrenn, James Beardsley, James Johnson, John Williamson, Christopher Wake Forest University Baptist Medical Center - PGY1 - Winston-Salem, NC

Purpose/Background: Current ATS/IDSA guidelines for hospital acquired pneumonia (HAP) recommend consideration of local microbiologic data when selecting initial therapy. Based on analysis of HAP pathogens, institution specific guidelines were developed and instituted at Wake Forest University Baptist Medical Center in January of 2006. The aim of this study is to evaluate the impact of these guidelines on adequacy of initial therapy and clinical endpoints.

Methodology: A retrospective analysis of 128 patients treated before (May 2004 - April 2005) and 128 patients after (May 2006 - April 2007) implementation of the HAP guidelines was performed. Randomly selected adult patients hospitalized during the study periods who had a positive respiratory culture collected e 2 days after hospital admission were screened for study inclusion. Inclusion criteria included presence of a new infiltrate on chest radiography and e 2 of the following within 24 hours of culture collection: abnormal white count ($>10 \times 10^9$ cells/L or $<5 \times 10^9$ cells/L); fever (temperature $>38^\circ\text{C}$) or hypothermia (temperature $<36^\circ\text{C}$); purulent secretions; and gas exchange degradation/increasing oxygen requirements. The primary outcome is adequacy of initial antibiotic coverage for HAP patients before and after implementation of institution specific HAP guidelines. Secondary outcomes include 14 and 28 day mortality, length of stay in hospital, length of ICU stay, and duration of antibiotic therapy.

Results:

Conclusions:

Presentation Objective: Evaluate the adequacy of initial therapy and clinical endpoints before and after implementation of institution specific HAP guidelines. **Self-Assessment:** What are the documented benefits of institution specific HAP guidelines?

2:40

Room C

ID

ABSTRACT REPRODUCTION FORM

RATE OF NEPHROTOXICITY ASSOCIATED WITH WEIGHT-BASED DOSING OF VANCOMYCIN
Megan Brockman, A. Shaun Rowe
University Of Tennessee Medical Center - Knoxville - Knoxville, TN

Purpose/Background: Several recent studies have evaluated nephrotoxicity associated with vancomycin. The primary objective of those studies was to compare vancomycin trough levels and their effect on the rate of nephrotoxicity. The purpose of this study was to determine if > 30 mg/kg/day of vancomycin increases the risk of nephrotoxicity compared to ≤ 30 mg/kg/day.

Methodology: A retrospective cohort analysis of patients who received 2 or more doses of either vancomycin or linezolid between August 1, 2009 and July 31, 2010 was conducted in order to compare rates of nephrotoxicity between > 30 mg/kg/day and ≤ 30 mg/kg/day doses of vancomycin, and linezolid. All patients aged 18-99 years who received at least 2 doses of either vancomycin or linezolid while admitted to a general medicine floor were included. Patients who received pulse dosing of vancomycin were excluded from this study. Patients were placed in the > 30 mg/kg/day group if at any point during therapy they received greater than 30 mg/kg/day of vancomycin. Patients with increased serum creatinine of 0.5 mg/dL or 50% above baseline, whichever was higher, were considered to have nephrotoxicity. Nephrotoxicity will serve as the primary endpoint for this study. The effect of total cumulative dose on the rate of nephrotoxicity, time to nephrotoxicity, and predictors of nephrotoxicity served as the secondary outcomes.

Results:

Conclusions:

Presentation Objective: Explain the risk of nephrotoxicity associated with weight-based dosing of vancomycin. **Self-Assessment:** What risk factors have been associated with nephrotoxicity in patients receiving vancomycin?

2:40

Room D

ID

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

USE OF A COMPUTER-BASED INSULIN INFUSION METHOD IN MANAGEMENT OF DIABETIC KETOACIDOSIS IN A PEDIATRIC INTENSIVE CARE UNIT

Biral Patel, Umesh Narsinghani, Katherine Thompson
Medical Center Of Central Georgia PGY1 - Macon, GA

Purpose/Background: Diabetic Ketoacidosis (DKA) occurs in 20-40% of children with new-onset diabetes and is the leading cause of morbidity and mortality in those with type 1 diabetes. Traditionally, DKA is managed using the 2 bag method concomitant with an insulin infusion. This technique can be labor intensive, requires repeated laboratory measurements, and has the potential for errors. We treat pediatric patients who are admitted with DKA with the Glucommander, a FDA approved computer based system for controlling blood glucose, by administering an intravenous infusion of insulin in response to the measurement of glucose levels.

Methodology: Conduct a retrospective chart review on patients admitted to the PICU from January 2009- December 2009 with a diagnosis of DKA and Type 1 Diabetes.

Collect data by chart review and enter in an excel spread sheet which will be analyzed using central tendencies and other appropriate statistical analysis.

Results:

Conclusions:

Presentation Objective: Measure the time to resolution of acidosis, achievement of glycemic control, length of stay in the PICU, number of adverse events, changes to intravenous fluids, number of blood glucose measurements, and number of units of insulin used. **Self-**

Assessment: Does the use of a Glucommander decrease the incidence of hypoglycemia and other adverse events in pediatric patients with DKA?

2:40

Room G

PED

IMPLEMENTATION OF COMPUTERIZED PHYSICIAN ORDER ENTRY (CPOE) AND PHARMACIST EDUCATION AT A COMMUNITY HOSPITAL

Maury F. Donovan, T. Aaron Jones
University Of Alabama Hospital - Birmingham - Birmingham, AL

Purpose/Background: The purpose of this project is to increase pharmacist reporting of medication misadventures and improve pharmacy s clinical services provided at a recently acquired community hospital.

Methodology: Beginning October 2010, routine educational efforts including the reinforcement of documenting pharmacists clinical interventions and medication misadventures were initiated. Data were obtained from the institution s reporting system for both documentation pathways. Monthly metrics including the number of medication errors (prevented and actual), suspected adverse drug reactions, and clinical interventions were measured to determine the impact of these educational efforts along with CPOE implementation.

Results: From April 1, 2010 to January 31, 2011 a total of 148 prevented and actual medication errors have been reported with 54% (n=80) being prevented and 46% (n=68) being actual errors. To date, there have not been any reports of suspected adverse drug reactions.

Additionally, a total of 92 pharmacists clinical interventions were reported. Currently, data are being evaluated to determine the nature of these reports.

Conclusions: Thus far, implementation of CPOE at a community hospital with frequent educational efforts has increased overall reporting of medication misadventures and clinical interventions.

Presentation Objective: Provide feedback and re-education to the pharmacy staff during the month of October 2010 and retrospectively evaluate pharmacists reporting of medication misadventures and clinical intervention reporting between October 2010 and May 2011. **Self-**

Assessment: What is one of the benefits with the implementation of CPOE in a community Hospital?

2:40

Room H

DI

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

PATIENT CHARACTERISTICS ASSOCIATED WITH BRIDGE THERAPY UPON WARFARIN INITIATION IN NEW ONSET ATRIAL FIBRILLATION AND FLUTTER

Jasmine Jennings And Sarah Ford
University Of North Carolina Hospitals PGY1 Pharmacy - Chapel Hill, NC

Purpose/Background: There is a lack of data to support or refute the utilization of heparin or heparin alternative bridge therapy in patients with new onset atrial fibrillation or flutter upon the initiation of warfarin. This study will seek to determine the factors used to determine the use of heparin or heparin alternative bridge therapy upon the initiation of warfarin in patients with new onset atrial fibrillation and flutter at this institution.

Methodology: This retrospective study will include patients admitted from January 1 through June 30,2010 diagnosed with new onset atrial fibrillation or flutter. Patients at least 18 years of age will be identified using the UNC Hospitals Anticoagulation Clinic Database based on warfarin indications of atrial fibrillation and flutter and initiated on warfarin during the study timeframe. A review of the patient s medical history will be performed to assess for the following risk factors: age, congestive heart failure, hypertension, diabetes, prior stroke or transient ischemic attack, and calculated CHADS2 score. Risk factors of patients managed with heparin or heparin alternative bridge therapy will be compared with those in whom this method of management was not used to determine the differences between the patient populations.

Results:

Conclusions:

Presentation Objective: Describe patient characteristics associated with use of heparin or heparin alternative bridge therapy upon the initiation of warfarin at this institution.

Self-Assessment: Which risk factors for thromboembolism were associated the use of heparin or heparin alternative bridge therapy upon the initiation of warfarin in patients with atrial fibrillation or flutter managed at this institution?

2:40

Room I

IM

EVALUATION OF RANOLAZINE MONITORING AT A LARGE VA HOSPITAL

Sumaiya Khan (Co-Investigator), Niki Papakos (Principle Investigator)
James A. Haley Veterans Hospital - Tampa, FL

Purpose/Background: To evaluate whether the ranolazine (Ranexa®) discontinuation criteria is being complied with in the outpatient clinical setting at the James A. Haley Veterans Hospital (JAHVA). If there is no evidence of therapeutic effectiveness 12 weeks after initiation of ranolazine, or if the patient is not tolerating ranolazine it should be discontinued.

Methodology: This study is a retrospective electronic chart review of all patients prescribed ranolazine for treatment of chronic stable angina at the JAHVA from July 1, 2007 to August 30, 2010. The inclusion criteria for the study are all veterans' at the JAHVA prescribed ranolazine from July 1, 2007 to August 31, 2010 in the outpatient setting after meeting VA criteria for use. Exclusion criteria are Veterans who did not have their ranolazine prescription refilled (no refill x1). Data to be collected from the electronic charts includes: re-assessment of patients within 6 months of therapy, improvement in angina symptoms (<3 angina episodes/week), reduction in sublingual nitroglycerin use, and occurrence of treatment limiting side effects. Statistical Analysis will be done with the use of descriptive statistics to evaluate compliance rates, which will be a percentage of patients who were not properly discontinued over all patients who should be discontinued.

Results:

Conclusions:

Presentation Objective: To identify whether ranolazine (Ranexa®) is being monitored appropriately at a large VA hospital. **Self-Assessment:** Why is it important for ranolazine to be appropriately monitored in order for continued use of the medication?

2:40

Room J

IM

ABSTRACT REPRODUCTION FORM

ASSESSMENT OF THE EFFICACY AND IMPACT OF STUDENT PHARMACIST INTERN COMPLETION OF ADMISSION MEDICATION RECONCILIATION

Kristen Kirdahy, Catherine Curran, Amy Skiff, Suzanne Turner
Lee Memorial Health System - Fort Myers, FL

Purpose/Background: Studies indicate that over 25% of hospital prescribing errors can be attributed to incomplete medication histories. Literature also supports that pharmacy student involvement in admission medication reconciliation improved the accuracy of medication histories obtained. The purpose of this study is to improve patient safety by improving the accuracy of admission medication reconciliation. The objective is to determine if admission medication reconciliation completed by a student within 24 hours of admission is more accurate than one completed by nursing staff, which is the current standard of care in our health system. We will also assess the impact of the student involvement by tracking the number of recommendations accepted by prescribers within 24 hours.

Methodology: This is a prospective, multi-center trial that will take place at two community hospitals within the Lee Memorial Health System. Students will obtain informed consent and interview a total of 300-500 patients within 24 hours of admission. Students will compare the completed medication reconciliation form against nursing documentation and current inpatient medications. They will then write a concise note detailing any discrepancies and summarizing their recommendations. Students will re-check the patient's chart to see which recommendations were accepted by prescribers within 24 hours.

Results:

Conclusions:

Presentation Objective: Identify which types of discrepancies are most commonly found by students on admission medication reconciliation. **Self-Assessment:** Which type of discrepancy was most commonly found during student medication reconciliation at LMHS?

a) Omission b) Addition c) Incorrect dose d) Incorrect frequency

2:40

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

STRUCTURING A NEW COMMUNITY PHARMACY RESIDENCY IN AN OUTPATIENT PHARMACY ASSOCIATED WITH A COMMUNITY TEACHING HOSPITAL.

Manav Patel, Jennifer Buxton
New Hanover Regional Medical Center PGY1 Pharmacy - Wilmington, NC

Purpose/Background: To design and implement a PGY1 community pharmacy residency program.

Methodology: This project was approved by the Institutional Review Board. Initially, a literature search was conducted regarding community practice residency programs, and site visits were conducted to other community residency programs. A curriculum was then formulated for the residency year along with a list of potential projects and learning experiences for the resident. Residency program design was developed in accordance with the accreditation standard for postgraduate year one community pharmacy residency programs developed by ASHP/APhA. Evaluations were developed for utilization by the resident, preceptors, and the residency program director to ensure all goals and objectives were met during the residency. Funding sources for the residency were explored and application for pre-accreditation status was completed and submitted.

Results: The community pharmacy residency position was approved by the administrative department at the hospital. A curriculum was developed for the residency year along with a handbook, residency manual, evaluation tools, and accreditation documents.

Conclusions: A community pharmacy residency program was established, and the first resident is currently being recruited.

Presentation Objective: Discuss the process involved in establishing a new community pharmacy residency program at a community teaching hospital. **Self-Assessment:** Where can you find information the development of a new community pharmacy residency program?

2:40

OLY 2

ADM

ABSTRACT REPRODUCTION FORM

EVALUATION OF ORLISTAT USE IN A VETERAN POPULATION

Jessica Crews Roberts And Lisa Sliter
Lake City VA Medical Center - Lake City, FL

Purpose/Background: Obesity is associated with an increased risk of co-morbidity, including cardiovascular disease and diabetes. Pharmacotherapy for the management of obesity is primarily aimed at initial weight-loss, maintenance of weight lost, and risk reduction. Orlistat is a novel, non-centrally acting anti-obesity agent that reduces the absorption of dietary fat. Orlistat is the only anti-obesity treatment FDA approved for the long-term management of obesity. The aim of this study is to evaluate the use of the orlistat in a Veteran population. Through this study we hope to evaluate the efficacy and tolerability of the only medication option offered at Lake City Veterans Affairs (VA) Medical Center for the treatment of obesity.

Methodology: The NF/SG Veterans Health System computerized database will be used to retrospectively identify patients prescribed orlistat between January 1, 2007 and June 30, 2010. All patients prescribed orlistat during this time period will be included. The medical record will be reviewed to assess weight at baseline and each appointment thereafter while on orlistat and up to 6 months after discontinuing medication. Orlistat tolerability will be reviewed by documented adverse drug reactions and reason for discontinuation. Medication adherence will be evaluated by prescription refill history.

Results:

Conclusions:

Presentation Objective: Discuss the use and efficacy of orlistat in a Veteran population.

Self-Assessment: What percentage of the veteran population is obese?

2:40

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

ANTICOAGULATION MANAGEMENT SERVICES WITHIN A PATIENT-CENTERED MEDICAL HOME MODEL

Kimberly Fordham, Mollie Ashe Scott, And Susan Sutherland
Mission Hospitals PGY1 Amb. Care - Asheville, NC

Purpose/Background: Mountain Area Health Education Center (MAHEC) Family Health Center is recognized by the National Committee on Quality Assurance (NCQA) as a Level III patient-centered medical home (PCMH). Patients are served by providers within the main family medicine clinic, nursing homes, assisted living facilities, retirement communities, and home health services, but there are different systems for how anticoagulation management services (AMS) are delivered. The purpose of this study is to assess the quality of care of the AMS within this PCMH.

Methodology: Data will be retrospectively retrieved from the electronic medical record from January 1, 2010 to June 30, 2010 for patients prescribed warfarin. Patients will be excluded if AMS is not provided by MAHEC. Patients will be classified as ambulatory, long term care, or home health. Data collection will include patient type, AMS provider, type of visit, process description, and patient demographics including age, gender, race, indication for anticoagulation, target INR range, duration of therapy, and percent of INRs in range. A comparison of quality indicators for each patient type will include percentage of INRs in range, INRs drawn at least monthly, INRs drawn within two weeks of out-of-range reading, hemorrhagic events, thromboembolic events, and major drug interactions.

Results:

Conclusions:

Presentation Objective: Assess the quality of care among multiple AMS systems within a patient-centered medical home. **Self-Assessment:** What are some ways to measure quality of care of anticoagulation management services?

2:40

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION AND EVALUATION OF A NON-INTENSIVE INSULIN PROTOCOL IN CRITICAL CARE UNITS
Alex H. Ward, T. Aaron Jones, Kathleen J. Cross
University Of Alabama Hospital - Birmingham - Birmingham, AL

Purpose/Background: Implement and evaluate a non-intensive insulin pilot protocol in response to recommendations for less intensive glucose control in critical illness.

Methodology: Eligible patients were those 19 years of age or greater admitted to trauma/burn, medical or surgical intensive care with an expected length of stay of 3 or more days. For 8 weeks, patients were monitored daily for hypoglycemia, daily insulin requirements, glucose ranges, and nursing adherence to protocol. A retrospective review of an 8 week section of the former insulin protocol was conducted for comparison of hypoglycemic episodes between the 2 protocols. Nursing satisfaction was evaluated through the use of an anonymous survey.

Results: 94 patients were evaluated. Initial safety analysis revealed 6 cases of hypoglycemia, 2 of which resulted from non-adherence to protocol. 56 patients will be excluded due to durations of therapy less than 3 days; however, all 94 patients were evaluated for the initiation of the infusion. The initial bolus portion did not result in any hypoglycemic episodes. Nursing adherence to glucose monitoring was near 0%.

Conclusions: The initial analysis did not reveal issues with the protocol that would warrant adjustments, thus indicating that insulin protocols with goal glucose ranging 141-180 and a bolus option are safe for intensive care use. Minor modifications to the monitoring section will result in higher nursing adherence to the protocol.

Presentation Objective: Understand the safety of a non-intensive ICU insulin protocol. **Self-Assessment:** What is one risk of using insulin infusions in ICU patients?

3:00

Room A

CCM

ABSTRACT REPRODUCTION FORM

ANALYSIS OF TIME AND BARRIERS TO FIRST DOSE OF ANTIBIOTICS IN THE INTENSIVE CARE UNIT
Brent Carlson, Joseph Kohn, Tanya Ezekiel, Bebbyn Schafer
Palmetto Health Richland PGY2 Critical Care - Columbia, SC

Purpose/Background: This study aims to identify the length of time it takes to administer the first dose of antibiotics in the intensive care unit as well as detect any barriers impeding their administration

Methodology: This was a retrospective electronic medical record review of 150 patients admitted to Palmetto Health Richland's medical intensive care unit (MICU) and surgical trauma intensive care unit (STICU). Patients were included in the study if they had one or more of the following antibiotics initially ordered in either the MICU or STICU: vancomycin, piperacillin/tazobactam, meropenem, ceftriaxone, cefepime, levofloxacin, ciprofloxacin, and linezolid. The primary outcome was the time elapsed from ordering antibiotic (computerized physician order entry (CPOE) or hand written order) to administration to the patient. Secondary endpoints included comparing antibiotic administration times for CPOE versus handwritten orders, pre-made versus compounded antibiotics, pharmacist rounding versus no pharmacist rounding, and MICU versus STICU.

Results:

Conclusions:

Presentation Objective: List potential barriers preventing the timely administration of antibiotics. **Self-Assessment:** What is a consequence of delayed antibiotic administration?

3:00

Room B

CCM

ABSTRACT REPRODUCTION FORM

EFFICACY OF DORIPENEM COMPARED WITH MEROPENEM FOR TREATMENT OF FEBRILE NEUTROPENIA
Christina Ratliff; John Williamson
Wake Forest University Baptist Medical Center - PGY1 - Winston-Salem, NC

Purpose/Background: Meropenem is recommended as empirical treatment for febrile neutropenia; however, no data exists to support the use of doripenem for this indication. The aim of this study is to evaluate the efficacy of doripenem compared with meropenem in the treatment of febrile neutropenia in patients who fail initial cefepime or piperacillin/tazobactam.

Methodology: This IRB approved, retrospective, single-center study will use the electronic medical record to identify patients with a diagnosis of febrile neutropenia, as documented by a temperature of at least 100.5 degrees Fahrenheit and an absolute neutrophil count less than or equal to 1,000 cells/mm³ at the time of initiating study carbapenem; malignancy that requires myelosuppressive chemotherapy with or without hematopoietic stem cell transplantation; admission to an inpatient oncology service at Wake Forest University Baptist Medical Center; treatment with either meropenem or doripenem; and 18 years of age or older. Patients will be excluded if they receive suboptimal dose of study carbapenem for more than 24 hours; less than 72 hours of empiric cefepime or piperacillin/tazobactam prior to initiation of study carbapenem; addition of an empiric antifungal or change in empiric antifungal within 72 hours before initiation of study carbapenem; or resolution of neutropenia before 72 hours of study carbapenem. The primary outcome is defervescence by 72 hours of study carbapenem.

Results:

Conclusions:

Presentation Objective: Describe the role of doripenem as salvage therapy for febrile neutropenia. **Self-Assessment:** Is doripenem an effective treatment of febrile neutropenia?

3:00

Room C

ID

ABSTRACT REPRODUCTION FORM

EVALUATION OF PROTON PUMP INHIBITOR DOSE AND PATIENT AGE AS RISK FACTORS FOR NOSOCOMIAL CLOSTRIDIUM DIFFICILE INFECTION
Jessica E. Freshour, Vivian C. Carlson, A. Shaun Rowe, Eric Heidel
University Of Tennessee Medical Center - Knoxville - Knoxville, TN

Purpose/Background: Studies have shown an association between proton pump inhibitors (PPI) and Clostridium difficile infection (CDI). Many patients prescribed PPI therapy are elderly and have comorbid health conditions that may increase risk of CDI. The purpose of this research was to evaluate the significance of PPI dose and patient age on the incidence of nosocomial CDI.

Methodology: This study was a retrospective cohort analysis comparing incidence of CDI among those exposed to PPI therapy against those not exposed. Patient age was evaluated as a continuous variable to assess changes in incidence as a function of age. Patients age 18 years and older admitted to a medical/surgical floor from January 2009 to June 2010 were reviewed for inclusion. Exclusion criteria were CDI in the 90 days prior to admission or time spent in an intensive care unit during admission. Data collected included patient age and gender, length of stay, medical floor of admission, concurrent disease states (transplant, diabetes, current cancer, renal failure, and gastrointestinal disorder), and use of high-risk antibiotics (clindamycin, quinolones, and cephalosporins). The primary endpoint of this study was the incidence of CDI. Data will be analyzed using SPSS version 16 and SAS version 9.2 as appropriate.

Results:

Conclusions:

Presentation Objective: Discuss the significance of proton pump inhibitor use on the incidence of Clostridium difficile infection. **Self-Assessment:** Should proton pump inhibitors be avoided in patients with history of Clostridium difficile infection?

3:00

Room D

ID

ABSTRACT REPRODUCTION FORM

ARE PEAKS AND TROUGHS NEEDED WHEN USING STANDARD EXTENDED INTERVAL DOSING FOR INFANTS IN THE NEONATAL INTENSIVE CARE UNIT?

Megan Nelson, Marroyln Simmons, And Tony Hampton
Sacred Heart Hospital - Pensacola, FL

Purpose/Background: Neofax is a neonatal dosing reference used by the physicians in our NICU. Dosing is based on gestational age and postnatal days, taking into consideration the immature metabolic system of premature neonates. Theoretically, if the dosing parameters are followed, serum drug levels should be within normal limits.

Methodology: Serum drug values and renal function were retrospectively assessed in neonates on gentamicin and tobramycin from November 1, 2009 until November 30, 2010. The data was then evaluated to determine if troughs were sufficient to monitor for safety or if peaks and troughs were needed.

Results: A total of 146 neonates were assessed. Twenty six percent (39/146) of the sample had elevated drug levels. Troughs were elevated in 31 of 146 samples (21%) and peaks were elevated in 8 of the 146 (5%) samples. Renal dysfunction as evidenced by elevated serum creatinine or low urine output were the main reasons for abnormal serum drug levels.

Conclusions: When using Neofax to dose gentamicin and tobramycin in a preterm infant it is not necessary to draw peaks. Troughs may be sufficient to monitor for safety. If the infant has abnormal serum creatinine or urine output then it might be appropriate to draw peaks and troughs.

Presentation Objective: To determine whether it is necessary to monitor peak levels when dosing gentamicin and tobramycin per Neofax. **Self-Assessment:** If a premature infant with normal renal is started on tobramycin, dosed based on Neofax, function, is it necessary to draw peaks and troughs?

3:00

Room G

PED

ABSTRACT REPRODUCTION FORM

EVALUATION OF EQUIANALGESIC DOSING CONVERSIONS FROM PATIENT CONTROLLED ANALGESIA TO ORAL OPIOIDS

Shyam Gelot, Keylow King, And Minh Duong
Tampa General Hospital - Tampa, FL

Purpose/Background: A 2008 study evaluated equianalgesic dose conversions from patient controlled analgesia (PCA) to oral opioids. Over the past two years, various pain services were implemented to improve patient care. The focus of this current study is to evaluate opioid conversion practices based on the American Pain Society's (APS) recommended guidelines from 2008 to 2010.

Methodology: Randomized, retrospective, chart review of patients ages 18-64 that received PCA for greater than 24 hours, who were then converted to oral opioids from January 2008 to June 2008 (Group 1) and from January 2010 to June 2010 (Group 2). Patients excluded were those converted from PCA to IV and oral opioids, conversions to non opioids, and patients who received PCA for less than 24 hours. Data collected will include age, race, pain score prior to conversion, 12 and 24 hour post conversion, consultations with the pain management team, oral opioids chosen for conversion, types of adverse effects post conversion, and if conversions were above, below or within 15% of APS recommended guidelines. A minimum of 90 patients (45 per group) would be necessary to have 80% power to detect the difference between groups in 2008 and 2010.

Results:

Conclusions:

Presentation Objective: Evaluate the percentages of patients that are within, below or above 15% of the American Pain Society's recommended guidelines after being converted from PCA to oral opioids in 2010 compared to 2008. **Self-Assessment:** How can pharmacy services impact pain management?

3:00

Room H

PAL

ABSTRACT REPRODUCTION FORM

AN ACCELERATED INTRAVENOUS IRON REGIMEN IN PATIENTS WITH HEART FAILURE & IRON DEFICIENCY

Brent Reed, Paul Dombrower, Abigail Miller, Jo Ellen Rodgers
University Of North Carolina Hospitals PGY1 Pharmacy - Chapel Hill, NC

Purpose/Background: Intravenous iron improves quality of life and functional status in patients with heart failure, but the weekly outpatient regimens studied to date are impractical for many patients. The purpose of this investigation is to evaluate an accelerated intravenous iron regimen in hospitalized patients with heart failure and iron deficiency.

Methodology: This prospective single-arm pilot investigation includes patients > 18 years of age with NYHA Class II-IV heart failure, ejection fraction < 40%, serum hemoglobin < 12.0 g/dL, and ferritin < 100 ng/mL or 100-300 ng/mL with transferrin saturation < 20%. An iron deficit will be calculated for each patient and sodium ferric gluconate 250 mg administered every 12 hours. Efficacy outcomes will be differences in hemoglobin and iron indices at 1-4 weeks, while safety outcomes will include adverse events related to iron infusions. Based on previous analyses, a minimum of six patients would be required to demonstrate changes in hemoglobin and thus 12 will be enrolled. For efficacy analyses, baseline and follow-up data will be compared by two-sided student t-test. Descriptive statistics will be used, including mean and standard deviation.

Results: To use sodium ferric gluconate for this investigation, an Investigational New Drug (IND) application was required by the US Food & Drug Administration (FDA). A decision on approval/exemption is pending.

Conclusions: Enrollment will begin upon FDA approval/exemption of the IND application.

Presentation Objective: Explain the benefits of intravenous iron in patients with heart failure. **Self-Assessment:** What outcomes are improved by intravenous iron in patients with heart failure?

3:00

Room I

IM

ABSTRACT REPRODUCTION FORM

COMPARISON OF DOFETILIDE AND AMIODARONE IN PATIENTS WITH ATRIAL FIBRILLATION

Freddy Tadros, Jasmine Egbue, Fabio Leonelli
James A. Haley Veterans Hospital - Tampa, FL

Purpose/Background: The purpose of this study is to compare the effectiveness of amiodarone versus dofetilide in maintaining normal sinus rhythm in patients at James A. Haley Veterans' Hospital with symptomatic atrial fibrillation (AF). To date few studies have compared the efficacy of amiodarone and dofetilide in the maintenance of normal sinus rhythm in patients with symptomatic AF.

Methodology: A retrospective analysis of patients who have been admitted to the James A. Haley Veterans Hospital who have been found to be in symptomatic persistent AF or symptomatic paroxysmal AF, and were discharged on either amiodarone or dofetilide between January 2002 September 2010. Patients will be evaluated if they were placed on either dofetilide or amiodarone upon discharge and followed by either the cardiology clinic or amiodarone clinic for a minimum of four months. The two groups will be matched for age, duration of AF and type of AF. The primary objective of this study is to assess if the patients placed on either amiodarone or dofetilide maintained NSR for up to one year.

Results:

Conclusions:

Presentation Objective: Compare the effectiveness of amiodarone versus dofetilide in maintaining normal sinus rhythm in patients with symptomatic AF. **Self-Assessment:** What factors make a patient an appropriate candidate for dofetilide therapy?

3:00

Room J

IM

ABSTRACT REPRODUCTION FORM

EVALUATION OF POST-OPERATIVE ANTIBIOTIC USE WITH THE SURGICAL CARE IMPROVEMENT PROJECT (SCIP) PERFORMANCE MEASURES

Mary Covington Walker, Tana Bagby, Tim Robinson, Christy Norman
MCG Health-UGA PGY1 Pharmacy - Augusta, GA

Purpose/Background: According to the Surgical Care Improvement Project (SCIP), post-operative antibiotics used for prophylaxis must be discontinued within 24 hours (48 hours for most cardiac surgeries) after anesthesia end time. The primary objective of this study is to evaluate institutional compliance with the SCIP performance measure and identify opportunities for improvement.

Methodology: A retrospective evaluation was conducted on adult patients who underwent surgery between November 1, 2010 and January 31, 2011. Patients were included based on selected surgeries defined by SCIP: coronary artery bypass graft, other cardiac surgeries, colon surgery, hip/knee arthroplasty, abdominal/vaginal hysterectomy, vascular surgery, or other major surgeries. Children, length of stay greater than 120 days, expired perioperatively, received antibiotics greater than 24 hours prior to surgery, or documented reason to extend antibiotics were excluded. Data collected included surgery type, antibiotic administration, and physician order entry/pharmacy verification processes. This project is part of the MCG Health Medication Use Evaluation (MUE) and Improvement program which has been approved by the Institutional Review Board.

Results: Surgical procedures for 2452 patients were evaluated. 128 patients underwent selected SCIP surgical procedures. In 10 cases, SCIP performance measures were not met. Post-operative antibiotics ordered through a standard order set always met SCIP core measures.

Conclusions: After implementing an action plan to address identified improvement opportunities, the evaluation will be repeated.

Presentation Objective: To identify methods to improve compliance to the Surgical Care Improvement Project (SCIP) performance measures. **Self-Assessment:** Will standard post-operative antibiotic order sets improve institutional compliance with SCIP performance measures?

3:00

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF A CLINICAL PHARMACY TECHNICIAN POSITION IN A COMMUNITY TEACHING HOSPITAL

Zack Bullard, Susan Cosby
New Hanover Regional Medical Center PGY1 Pharmacy - Wilmington, NC

Purpose/Background: This project was designed to implement a clinical pharmacy technician position in a community teaching hospital.

Methodology: IRB approval was obtained. The first step was to develop job responsibilities of the clinical technician. Once responsibilities were decided, a job description was written which would define qualifications and responsibilities of this position. Interview questions were developed. A competency was developed which included a computer-based training module as well as sample cases. The competency developed included medication reconciliation and the other responsibilities of the clinical pharmacy technician. The competency was developed to help facilitate the training of the current clinical pharmacy technician as well as other future clinical pharmacy technicians. A pharmacist reviewed sample cases and provided one-on-one training prior to the clinical technician being released to perform these tasks. The clinical technician position was implemented into the pharmacy department.

Results: A pharmacy technician was interviewed and hired to fill the clinical technician IV position. A job description, training checklist and competency was developed. Final training and implementation into the pharmacy department are pending.

Conclusions: The clinical pharmacy technician position has been created and is awaiting final training and implementation into the pharmacy department.

Presentation Objective: Identify the clinical role of the pharmacy technician in the community teaching hospital. **Self-Assessment:** How can the clinical pharmacy technician impact clinical services offered at a community teaching hospital?

3:00

OLY 2

ADM

ABSTRACT REPRODUCTION FORM

IMPACT OF A PHARMACIST-DRIVEN SMOKING CESSATION GROUP CLASS

Elizabeth Coble, Peter Koval
Moses H. Cone Health System - Greensboro, NC

Purpose/Background: Nicotine addiction is a common problem and results in detrimental health consequences to smokers as well as innocent bystanders. The 2009 MMWR reports that 20.9% of North Carolinians smoke, compared to a national average of 18.4%. The Moses Cone Family Practice Clinic (FPC) reports smoking in 29% of clinic patients, this number being higher than both the state and national average. Current guidelines support the use of telephone, group, and individual counseling for smoking cessation. The purpose of this project has been to implement a new smoking cessation group class within the clinic and to determine its impact on patient success.

Methodology: A two-part smoking cessation group class was held monthly. Patients were recruited by FPC staff and through distribution of brochures. Group class one, led by a clinical psychologist, served to ready patients for the quit process by preparing them for the mental challenges of overcoming an addiction. Group class two, led by a member of the pharmacy team, educated patients regarding benefits of quitting and available smoking cessation aids. In conjunction with group class two, each patient was assisted in creating a quit plan. In addition, patients were provided with at least two follow-up phone calls to provide encouragement and assess quit progress. Additional follow-up calls were placed upon patient request.

Results:

Conclusions:

Presentation Objective: To equip audience members with an understanding of how to organize and implement a smoking cessation group class. **Self-Assessment:** What methods are currently available to assist patients in the smoking cessation process?

3:00

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF AN EMPLOYER WELLNESS PROGRAM THAT INCORPORATES THE CLINICAL PHARMACIST PRACTITIONER MODEL

Alex Delucenay, Mollie Ashe Scott
Mission Hospitals PGY1 Amb. Care - Asheville, NC

Purpose/Background: Mountain Area Health Education Center (MAHEC) has a commitment to employee wellness, and has recently developed a chronic condition management (CCM) program. The Departments of Human Resources and Pharmacotherapy partnered with their pharmacy benefits manager, American Healthcare, to offer the CCM as a new employee benefit in January 2010. The purpose of this project was to design and implement a Clinical Pharmacist Practitioner (CPP) managed employer-based wellness program focused on medication therapy management for diabetes, hypertension, and hyperlipidemia.

Methodology: Employees were invited to enroll in the CCM by American Healthcare. Incentives for employee participation include waived or low-cost copays for medications and supplies. Employees could choose to receive pharmacist care management services at MAHEC Family Health Center even if they received primary care services elsewhere. Steps involved in developing the clinic included: identifying space to see patients, collaborating with the billing office and payers to develop systems for reimbursement, entering patient data into the electronic medical record, developing a contractual relationship with a local hospital to provide group classes, and identifying and training pharmacist care managers. Patients will have an initial assessment with the pharmacist, including assessment of ability to attend educational classes. After enrollment, the pharmacist will meet with the patient monthly and will collaborate with the patients primary care physicians to ensure optimal drug therapy outcomes.

Results:

Conclusions:

Presentation Objective: Describe processes involved in the development of a clinical pharmacist practitioner model wellness program. **Self-Assessment:** What are some critical steps in the development of a pharmacist-run wellness clinic

3:00

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

COST OF SEDATIVE DRUGS USED IN MECHANICALLY VENTILATED ICU PATIENTS USING A NURSE DIRECTED PROTOCOL COMPARED TO NON-PROTOCOL
 Roger Reeder
 Southeastern Regional Medical Center - Lumberton, NC

Purpose/Background: To determine if any sedative medication cost differences exist when using a nurse directed sedation protocol for mechanically ventilated patients created by intensivists compared to non-protocol managed patients from an internal study that reported no difference in clinical outcomes.

Methodology: A retrospective analysis was performed using data from an unpublished internal study performed by an intensivist from June 2009 - May 2010 at Southeastern Regional Medical Center in Lumberton, NC on 72 patients meeting the inclusion/exclusion criteria. The analysis compared the sedative medication cost per day for patients receiving care using a nurse directed sedation protocol (n=39) and those sedated receiving care by non-protocol sedation (n=33). A chart review was performed and data was collected for all sedative medications used while the patient was mechanically ventilated. The data was aggregated by patient groups and converted to a cost per hour for the comparator groups.

Results:

Conclusions:

Presentation Objective: Report if any sedative medication cost differences exist from using a nurse directed protocol to manage sedation in comparison to non-protocol in mechanically ventilated patients in the ICU. **Self-Assessment:** Did the nurse directed protocol approach in mechanically ventilating a patient decrease cost of sedative medications compared to the non-protocol approach?

3:40

Room A

CCM

ABSTRACT REPRODUCTION FORM

IMPACT OF A PHARMACIST SEDATION PROGRAM ON THE MEDICAL AND SURGICAL MECHANICALLY VENTILATED PATIENT POPULATION IN A LEVEL II
 Lisa Lederhouse And Mary Beth Bobek
 New Hanover Regional Medical Center PGY1 Pharmacy - Wilmington, NC

Purpose/Background: Determine the impact of a pharmacist monitoring sedation program in the mechanically ventilated patient population in a community hospital setting.

Methodology: This retrospective/prospective study was approved by the Institutional Review Board. The included population was any medical or general surgical mechanically ventilated patient receiving continuous sedatives and/or analgesics. Excluded from this study were neurosurgery patients, patients on neuromuscular blockers, and those with active seizures, withdrawal symptoms, evidence of increased intracranial hemorrhage, or profound neurological deficits. The primary outcome was length of mechanical ventilation time. Secondary outcomes included total doses of analgesics/sedatives, documentation of the daily wake up assessment, length of ICU stay, and adverse effects. In the retrospective study, data was collected on 50 patients admitted during the months of January and February 2010, which served as the control group. In the prospective study, ICU nurses received an in-service on daily wake up assessments by the pharmacist and also completed an online training module. The pharmacist then ensured wake up assessments were performed daily and made recommendations regarding appropriate sedatives and analgesics. The results of the prospective study were compared with the retrospective study for the primary outcome.

Results: In the prospective study, the average length of mechanical ventilation was 138.5 hours.

Conclusions:

Presentation Objective: Describe ways a pharmacist can impact sedation for mechanically ventilated patients. **Self-Assessment:** How does a pharmacist ensuring a daily wake up assessment for mechanically ventilated patients impact length of ICU stay?

3:40

Room B

CCM

ABSTRACT REPRODUCTION FORM

ANTIMICROBIAL STEWARDSHIP: EFFECTS OF A USE RESTRICTED ANTIBIOTIC ORDER FORM ON APPROPRIATE ANTIBIOTIC SELECTION AND USAGE
 Janna Wyatt & Deanne Tabb
 Columbus Regional Healthcare System - Columbus, GA

Purpose/Background: The antimicrobial stewardship team recently developed guidelines for the appropriate use of select antimicrobial agents. The team set a compliance goal of > 95% for the use of restricted agents per hospital criteria and > 98% post pharmacy intervention. The purpose of the study is to further advance this institution's antimicrobial stewardship program by implementing a user-friendly, use restricted antibiotic order form to improve judicious use of these agents.

Methodology: A retrospective analysis over a two month period was performed to determine the appropriateness of use of linezolid, daptomycin, tigecycline, aztreonam, micafungin, and the carbapenem class at baseline. An antibiotic order form was created, listing criteria for use for each agent. Education materials were made available on the antimicrobial stewardship website, and targeted prescribers were educated one-on-one. Post intervention assessments will include: percent of orders meeting hospital use criteria; order set compliance (i.e. percent of time form used when ordering restricted agents); number of pharmacy interventions; intervention acceptance rate.

Results: Baseline compliance with appropriate use of restricted agents was 80%.

Conclusions:

Presentation Objective: Discuss the impact of a hospital-wide antibiotic order form on improving compliance for the use of restricted agents per hospital criteria. **Self-Assessment:** Name one way a pharmacist can help improve appropriate selection of use restricted agents.

3:40

Room C

ID

ABSTRACT REPRODUCTION FORM

EFFECT OF RAPID IDENTIFICATION OF STAPHYLOCOCCAL SPECIES ON TIME TO INITIATION OF OPTIMAL, TARGETED ANTIMICROBIAL THERAPY.
 Erica Stetz, Lauren Stafford, Kevin Epps
 St. Vincent's Medical Center - Jacksonville, FL

Purpose/Background: Bacteremia is among the most severe bacterial infections and is associated with increased morbidity and mortality. Early diagnosis and appropriate empiric antimicrobial therapy has shown to decrease mortality rate by about 14 percent. The objective of this study is to evaluate the effect of rapid identification of Staphylococcal species on the time to the initiation of optimal antimicrobial therapy.

Methodology: This prospective, randomized, controlled trial has been approved by the institutional review board and will be conducted to evaluate the effect of rapid identification of Staphylococcus species on the time to optimal antimicrobial drug therapy. Secondary outcomes will include the following: (1) length of hospital stay (2) associated cost per patient, (3) total days of antibiotic usage, (4) suboptimal antibiotic therapy rate and (5) mortality. Participants will be randomized into the control group or the intervention group. Blood cultures included in the intervention group will be processed using the rapid S. aureus test, where as the control group will undergo the gold standard, blood culture. The physician will be notified of results to assess whether a change in therapy is warranted and the primary and secondary endpoints will be evaluated for significance.

Results:

Conclusions:

Presentation Objective: Discuss the appropriate treatment options available for bloodstream infections associated with methicillin sensitive S. aureus (MSSA) vs. methicillin resistant S. aureus (MRSA) and the effect rapid identification processes have on this patient population. **Self-Assessment:** A rapid S. aureus test reveals MSSA, what is the most appropriate treatment option?

3:40

Room D

ID

ABSTRACT REPRODUCTION FORM

CHARACTERIZATION OF THE USE OF INTRAVENOUS MAGNESIUM SULFATE FOR ACUTE ASTHMA EXACERBATIONS IN PEDIATRIC PATIENTS

Kyana D. Stewart, And Lea Eiland
Huntsville Hospital - Huntsville, AL

Purpose/Background: To determine the role of IV magnesium utilized in the acute management of pediatric asthma exacerbations.

Methodology: A retrospective chart review was conducted on all pediatric patients presenting to the pediatric emergency department who received intravenous magnesium sulfate from August 2009 to November 2010. Patients were identified by ICD-9 code upon admission. This group of pediatric patients was further stratified by age with patients less than 1 year of age and greater than 17 years of age being excluded from the study data.

Results: Preliminary results show that pediatric patients between the 1-17 years of age admitted for IV magnesium as a third line agent following treatment with nebulized albuterol and ipratropium bromide. Dosing strategy for IV magnesium in these patients was consistently within the therapeutic range of 25 - 75 mg/kg/dose; however, correlations are unable to be made between the dosing strategy and severity of exacerbation.

Conclusions: After conducting a retrospective review of pediatric patients admitted to the emergency department for an acute asthma exacerbation, it has been determined that the role of intravenous magnesium sulfate in this setting is as an adjunctive agent after utilizing the first line therapies advocated in the guidelines.

Presentation Objective: To discuss the usage of IV magnesium sulfate for acute asthma exacerbations in pediatric patients. **Self-Assessment:** Describe the role in therapy of IV magnesium sulfate in acute asthma exacerbation in the pediatric patient?

3:40

Room G

PED

ABSTRACT REPRODUCTION FORM

PROSPECTIVE EVALUATION OF PATIENT-PERCEIVED BARRIERS TO MEDICATION ADHERENCE IN THE TREATMENT OF BREAST CANCER

Maurice Alexander, John Valgus, Lynn Dressler, Allison Deal
University Of North Carolina Hospitals PGY1 Pharmacy - Chapel Hill, NC

Purpose/Background: Oral anti-neoplastics, specifically lapatinib and capecitabine, have an expanding role in the management of breast cancer. However, they do present challenges, including patient non-adherence, which has been identified by the World Health Organization as the single most important modifiable factor that compromises treatment outcomes. Studies have shown that up to 25% of breast cancer patients taking capecitabine and lapatinib take less than 80% of their prescribed doses. There is concern that non-adherence may lead to worse outcomes in patients with breast cancer. Therefore, it is important to identify factors associated with non-adherence in order to maximize benefit in patients receiving these medications as part of routine standard of care.

Methodology: This study is a prospective survey analysis. Patients will be identified for inclusion using electronic searches from the pharmacy information system, electronic medical records, and information from primary oncologists. Adult, English-speaking breast cancer patients currently receiving primary oncology care at the North Carolina Cancer Hospital at UNC Hospitals and Clinics, and currently taking oral chemotherapy regimens for their breast cancer will be included. Surveys will be distributed to patients identified to be eligible to assess patient perceived barriers to medication adherence.

Results:

Conclusions:

Presentation Objective: To understand potential factors affecting adherence to oral antineoplastics in breast cancer. **Self-Assessment:** What factors have a potential impact on patient adherence to oral antineoplastics?

3:40

Room H

ONC

ABSTRACT REPRODUCTION FORM

ANTICOAGULATION MONITORING IN A COMMUNITY BASED HEALTHCARE SYSTEM

Jeffrey D. Hogg, Denise E. Daly
St. Joseph's/Candler Health Systems - Savannah, GA

Purpose/Background: Anticoagulants have been used clinically for many years and are an effective therapeutic treatment for many conditions. These agents are extremely effective at preventing the formation of blood clots in those individuals who are at high risk. However, the use of anticoagulation requires diligent monitoring on the part of the health care provider to ensure that the patient remains within the targeted therapeutic level. St. Joseph s/Candler Health System has approved monitoring protocols in effect for these patients. In order to provide the highest level of care to the patients of this health system, it is imperative to determine if these protocols are being used appropriately.

Methodology: Two hundred patients were included in the study. A retrospective chart review was performed to determine if the proper anticoagulation monitoring laboratory tests were ordered and if the appropriate protocol was placed on the patient's chart and sent to the pharmacy.

Results:

Conclusions:

Presentation Objective: Describe importance of and examples of anticoagulation monitoring in hospitalized patients. **Self-Assessment:** What is one laboratory test that is used to monitor patients that are medically anticoagulated?

3:40

Room I

IM

ABSTRACT REPRODUCTION FORM

APPROPRIATE USE OF ERYTHROPOETIN STIMULATING AGENTS THROUGH PHARMACY INTERVENTIONS

Daria Accaputo, Heidi Clarke, And Radhan Gopalani
Baptist Hospital Of Miami - Miami, FL

Purpose/Background: Erythropoietin stimulating agents (ESAs) play a major role in the management of anemia. However, due to the increasing evidence of serious life threatening side effects associated with ESAs, strategies to enhance their efficacy and reduce harm have been recommended. One such recommendation is to maintain transferrin saturations with intravenous iron supplementation. This has been proven to help achieve target hemoglobin levels and decrease ESA requirements. The purpose of this study is to implement a protocol which allows a pharmacist to optimize patient s iron saturation prior to initiation or continuation of darbepoetin alfa therapy.

Methodology: This study is IRB approved. Phase I will consist of a retrospective chart review of patients who received darbepoetin alfa prior to the implementation of a pharmacist driven protocol. Phase II will consist of a prospective review and evaluation of patients who are prescribed darbepoetin alfa. The primary outcome is to ensure the optimal use of darbepoetin alfa by having transferrin saturation greater than 20%, achieving target hemoglobin levels, and obtaining corresponding labs. Secondary outcomes include amount of inappropriate darbepoetin alfa doses dispensed, average amount of elemental iron (mg) needed to replace iron stores, number of pharmacist interventions, and cost savings associated with those interventions. The study outcomes will be compared between phase I and phase II.

Results:

Conclusions:

Presentation Objective: Recognize the appropriate use of erythropoietin stimulating agents and methods to optimize their use **Self-Assessment:** In order for darbepoetin to be used appropriately, what criteria must be met?

3:40

Room J

IM

ABSTRACT REPRODUCTION FORM

PHYSICIANS' PERSPECTIVE OF THE ROLE OF COMMUNITY PHARMACISTS IN THE

Authors: Karleen Melody, Kristy Brittain, Lindsay Meadowcraft
Medical University Of South Carolina - Charleston, SC

Purpose/Background: The foundation of healthcare reform is based on expanding access to healthcare, improving the quality of care, and reducing the costs associated with that care. It has been proven in The Asheville Project and The Ten City Challenge that pharmacists can play an integral role in improving the quality of care and saving employers and patients thousands of dollars by delivering quality medication therapy management. Even with evidence showcasing these abilities to improve patient care, pharmacists are still underutilized.

Methodology: This prospective survey study will survey a randomized sample of family physicians via email. Data collected will measure physician demographics, areas and disease states the physicians feel pharmacists can provide patient care, and the means and frequency for these interventions. Responses will be analyzed to assess physicians' perceived role of pharmacists in the patient centered medical home.

Results: Data collection is currently underway. Results are pending.

Conclusions: Conclusion is pending

Presentation Objective: To identify the role physicians feel community pharmacists can play in the patient-centered medical home model. **Self-Assessment:** How can pharmacists better promote and market their skills and abilities to expand their role in order to provide patient care to patients in the patient-centered medical home model?

3:40

OLY 1

CP

ABSTRACT REPRODUCTION FORM

SURVEY EVALUATION OF PGY1 PHARMACY RESIDENCY PROGRAM DIRECTORS' VIEW OF NON-TRADITIONAL RESIDENCY CANDIDATES

Starr-Mar Ee Bedy, Marjorie Phillips, Christina Deremer
MCG Health-UGA PGY1 Pharmacy - Augusta, GA

Purpose/Background: In order to improve patient safety and the pharmacy practice model, the American Society of Health-System Pharmacists 2015 initiative aims to increase the number of new practitioners entering hospital and health-system practice who have completed residency training to 90% from 34% in 2008. The focus on residency training is working; however, the number of positions available has not increased with demand, and more than 1,000 candidates were unmatched in March 2010.

Currently, there is a paucity of data guiding selection of the optimum pharmacy residency candidate. Students with prior degrees and/or careers (non-traditional students) represent the minority of graduating pharmacists. In general, students with leadership and community service activities are considered more competitive candidates; however, it is unclear if non-traditional students deserve a special look based on past accomplishments. The purpose of this study is to evaluate the opinions of program directors for accredited PGY1 Pharmacy Residency programs in regards to non-traditional residency candidates and the belief that their past accomplishments predict future achievement.

Methodology: An 18-item survey was developed, then approved by the local institutional review board. An electronic copy of the survey was distributed via email to 642 individual program directors. Data, including program characteristics and opinions on prior unrelated degrees and/or careers, were collected and analyzed.

Results:

Conclusions:

Presentation Objective: Discuss the applicant characteristics that are used to predict resident performance. **Self-Assessment:** True or False: Evidence demonstrates that pharmacy residency candidates who achieve high scores on validated tests are better performers.

3:40

OLY 2

ADM

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF A PHARMACIST MANAGED DIABETES CLINIC TO AN INDIGENT POPULATION

Kim Hood, Anna Meador, Roger Lander
Samford University - Birmingham, AL

Purpose/Background: Pharmacists can play a key role in patient identification, assessment, education, and monitoring of chronic disease states. The purpose of the study is to create a model for pharmacy management of chronic disease states and to describe pharmacy services provided to an indigent population.

Methodology: A prospective data collection looking at pharmacy involvement in diabetes care to an indigent population. Patients were enrolled in the study if they were over 18 years of age, had a diagnosis of Type 2 diabetes, and had poorly controlled diabetes. At the initial visit, the patient's knowledge of diabetes, their medication regimen, and medication adherence were assessed. Patients were also provided with general diabetes education and were shown how to properly use their glucose meter at home. At subsequent follow-up visits, disease state education, knowledge of medication regimen, and self-monitoring of blood glucose were evaluated. Patients were also provided with education on foot care, nutrition, and physical activity. The primary outcome of this study will be the absolute change in hemoglobin A1c from baseline through three months using a point of care device.

Results:

Conclusions:

Presentation Objective: Describe the role pharmacists can play in the management of chronic disease states. **Self-Assessment:** What are the four main ways that pharmacists can be involved in chronic disease state management?

3:40

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

PROSPECTIVE EVALUATION OF EDUCATIONAL CLASSES CREATED THROUGH THE VETERANS HEALTH ADMINISTRATION RURAL HEALTH INITIATIVE

Lakia Scoggins, Tammy Smith, Amanda Conley, Carrie Mitchell, Jennie Hewitt
Salisbury VA Medical Center - Salisbury, NC

Purpose/Background: Approximately 40% of Veterans in the United States live in rural regions. Veterans living in rural areas are in poorer health than their urban counterparts. One of the key factors in this disparity is lack of access to care and health related information. The rural health initiative was created to increase access to individuals within rural communities and improve their health literacy. This initiative provides important tools to help Veterans learn and understand chronic diseases that can affect them in many ways. This project was designed to identify possible areas for improvement of educational classes through assessment of patient understanding and satisfaction. Questionnaires specific to the health information provided were developed to identify areas for improvement.

Methodology: Educational presentations were provided at community venues. Questionnaires were distributed before and after the interactive classes. Eligible participants who completed at least half of both the pre- and post-questionnaires were included in the analysis. Based upon the assessment of patients' responses, this will determine ways to improve the educational classes to ensure that Veterans are provided with optimal education.

Results:

Conclusions:

Presentation Objective: Identify possible areas of improvement for more effective health education in the community setting. **Self-Assessment:** What particular aspect of health education do outreach participants have the greatest improvement in their understanding?

3:40

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

EVALUATION OF SHORT TERM OUTCOMES AFTER T-PA ADMINISTRATION IN RAPID RESPONDERS

Cortes, Aaronson, Johnson, Tahiliani, Delossantos, Baroso, Silliman
Shands Jacksonville Pgy2 - Critical Care - Jacksonville, FL

Purpose/Background: Alteplase, Activase® (t-PA) is approved for use in acute ischemic stroke. Although clinical trials have demonstrated improved neurological outcomes at 90 days, short-term outcomes have not been studied as thoroughly. The purpose is to evaluate short term outcomes in patients who rapidly respond to intravenous t-PA versus other responders within 30 hours and to assess safety outcomes.

Methodology: This study is an IRB approved retrospective chart review. All patients with a diagnosis of ischemic stroke treated with t-PA from January 1, 2005 January 31, 2011 will be reviewed for inclusion. The National Institute of Health Stroke Scale (NIHSS) score from baseline will be compared to the repeat score within 30 hours. Improvement in the NIHSS score by e 4 points will be categorize the patient as rapid responder ; if not, they will be in the other responder group. Length of stay and disposition status will be used to evaluate the short-term outcomes associated with t-PA use. In order to define and appropriately evaluate length of stay and disposition, the following will be assessed as secondary endpoints: medical complications, hospitalization costs, mortality, location of infarct, and prior use of anti-platelet agents.

Results:

Conclusions:

Presentation Objective: Identify short term outcomes in rapid responders post t-PA administration. **Self-Assessment:** What is the definition of a rapid responder?

- A decline in NIHSS score by 4 points
- Return to neurological baseline
- Improvement by e 4 points in the NIHSS score
- Improvement by e 4 points in the Glasgow Coma Scale

4:00

Room A

CCM

ABSTRACT REPRODUCTION FORM

MANAGEMENT OF SHIVERING WITH NEUROMUSCULAR BLOCKING AGENTS DURING THERAPEUTIC HYPOTHERMIA POST CARDIAC ARREST

Sarah Miller, Marlena Pinney, Xi Liu Deryke, Valerie Danesh
Orlando Health - Orlando, FL

Purpose/Background: Therapeutic hypothermia has been shown to improve neurologic outcomes in patients post cardiac arrest. Shivering is counterproductive in hypothermia and is a major complication. Continuous infusions and intermittent boluses of neuromuscular blocking agents (NMBA) have been used for shiver control but no studies exist comparing the two methods. Due to changes in drug pharmacokinetics during hypothermia, infusions of NMBAs can lead to prolonged paralysis and unwanted complications. Boluses of NMBAs may result in inadequate control due to failure to recognize the presence of shivering but may have fewer associated complications. This study will compare the efficacy and complications associated with NMBAs administered as infusions versus boluses as needed (PRN) for shiver control during therapeutic hypothermia.

Methodology: This is a retrospective chart review of ICU patients who received therapeutic hypothermia post cardiac arrest from January 2008 through October 2010. Adult patients who received NMBAs for shivering management were included. Efficacy outcomes include time to achieve target temperature, time spent within target temperature, the number of PRN doses or titrations of the NMBA infusion, requirements of sedatives/analgesics, and time to reach 37°C after initiation of rewarming. Complications include incidence of seizure, time to neuromuscular activity recovery measured by improvement of GCS score, and time to extubation from NMBA discontinuation.

Results:

Conclusions:

Presentation Objective: Describe the efficacy/safety associated with NMBAs administered as infusion versus PRN boluses for shiver control during therapeutic hypothermia. **Self-Assessment:** What is the potential disadvantage of administering continuous infusions of NMBAs for shiver control during therapeutic hypothermia?

4:00

Room B

CCM

ABSTRACT REPRODUCTION FORM

POTENTIAL IMPACT OF PCR-BASED RAPID IDENTIFICATION OF COAGULASE NEGATIVE STAPHYLOCOCCI ON REDUCING VANCOMYCIN CONSUMPTION

John M. Hurst, Danielle F. Kunz, Timothy A. Jones, Mukesh Patel
University Of Alabama Hospital - Birmingham - Birmingham, AL

Purpose/Background: The purpose of this project is to assess the impact of polymerase chain reaction (PCR)-based rapid identification on vancomycin days of therapy (VDOT).

Methodology: Patients evaluated will include those with positive blood cultures identified through the GeneXpert® system as coagulase negative staphylococci (CNS). Patients receiving concurrent vancomycin will be identified using MedMined® reports. Patients with high suspicion for blood culture contamination will be presented to Infectious Disease faculty. Estimated reductions in VDOT will be calculated for all evaluated patients.

Results: To date, 113 patients with blood cultures positive for CNS have been identified. Eighty-nine patients with no record of vancomycin initiation were subsequently excluded. Among the remaining 24 patients, seven were considered appropriate for continuation of vancomycin therapy (average of 15 VDOT). One patient was discharged before any follow up could occur, 16 patients whose vancomycin therapy was deemed inappropriate were identified: 8 patients had stewardship intervention (average 5.6 VDOT) and 5 patients had therapy discontinued by primary team (average 5.4 VDOT). In 3 patients, primary team continued vancomycin inappropriately despite stewardship intervention (average 12.3 VDOT).

Conclusions: Although a limited number of patients have been evaluated, PCR testing combined with stewardship intervention appears to reduce VDOT.

Presentation Objective: Define the potential impact of real-time PCR-based molecular testing of gram positive blood cultures on vancomycin days of therapy per thousand patient days. **Self-Assessment:** What is the potential utility for real-time PCR-based molecular testing on reducing vancomycin exposure in the setting of blood culture contamination?

4:00

Room C

ID

ABSTRACT REPRODUCTION FORM

VANCOMYCIN PHARMACOKINETICS IN PATIENTS WEIGHING 190% OR MORE ABOVE OF THEIR IDEAL BODY WEIGHT

Mariam Majidi, Andrea Roberson, Memorie Wilcoxon, Kevin Viel
St. Joseph's Hospital Of Atlanta - Atlanta, GA

Purpose/Background: Many patients on vancomycin at Saint Joseph s Hospital (SJHA) weigh e 190% their ideal body weight (IBW). There is limited data regarding pharmacokinetics of vancomycin in morbidly obese patients. The purpose of this study is to provide data on vancomycin pharmacokinetics in patients weighing e 190% IBW.

Methodology: Hospitalized patients weighing e 190% IBW and receiving vancomycin from January-April 2011 will be included if they sign an informed consent and none of the following exclusion criteria are present: On dialysis or CRRT, SCr fluctuations >0.5mg/dL within 5 days, <18 years of age, quadriplegia or paraplegia, non-English speaking or pregnancy. Creatinine clearance (CrCl) will be calculated via the Cockcroft-Gault equation and Salazar-Corcoran equation to determine which method best predicts vancomycin troughs and elimination rate (Ke) via standard pharmacokinetic equations. Predicted vancomycin levels, Ke and volume of distribution (Vd), will be compared to patient specific values obtained via study initiated levels. A retrospective case-matched sub-study will also be done and include pharmacy managed vancomycin patients from 2008-2010. The CrCl equations used in prospective study will be utilized to predict Ke and estimate troughs and will be compared to measured troughs in patients weighing e 190% IBW and case-matched patients weighing 100-125% of IBW.

Results:

Conclusions:

Presentation Objective: Discuss vancomycin pharmacokinetics in morbidly obese patients. **Self-Assessment:** Which CrCl formula best predicts vancomycin elimination rates in morbidly obese patients?

4:00

Room D

ID

ABSTRACT REPRODUCTION FORM

DEVELOPMENT OF AN INSTITUTIONAL PROTOCOL FOR USE OF ANTITHROMBIN III IN NEONATES ON EXTRACORPOREAL MEMBRANE OXYGENATION

Lisa Derby; Bethany Lynch; Kalen B. Porter
Medical College Of GA University Of Georgia PGY2 Peds. - Augusta, GA

Purpose/Background: Extracorporeal membrane oxygenation (ECMO) leads to activation of the hemostatic system and consumption of clotting factors. Heparin is used empirically to prevent thromboses, but its activity is dependent on adequate antithrombin levels. Consumption of antithrombin during ECMO leads to insufficient anticoagulation. Administration of antithrombin III (ATIII) may prevent this issue. The goal of this project was to create a protocol to guide use of ATIII in neonates on ECMO based on institutional experiences.

Methodology: A chart review was conducted for neonates that received ATIII while undergoing ECMO prior to protocol development. Results were used to identify a regimen to be considered for an institutional protocol. This regimen will be piloted in three neonates. Antithrombin levels will be collected at twelve-hour intervals. Using information gained from this trial, the dosing interval was amended and a protocol was developed.

Results: Ten neonates received ATIII during ECMO prior to protocol development. The most frequently prescribed regimen was 125 units/kilogram every twelve hours. Antithrombin levels were not routinely used to adjust dosing. The regimen proposed for the pilot is 125 units/kilogram every twelve hours. Data collection and protocol development is in progress.

Conclusions:

Presentation Objective: Participants will describe the process used to develop a protocol for using antithrombin III in neonates on extracorporeal membrane oxygenation. **Self-Assessment:** Antithrombin III administration during extracorporeal membrane oxygenation may prevent thromboses because it:

- a) is a potent anticoagulant
- b) provides antithrombin substrate needed by heparin
- c) inhibits the extrinsic coagulation pathway

4:00

Room G

PED

ABSTRACT REPRODUCTION FORM

EVALUATION OF FALLS IN THE ADULT HEMATOLOGY AND ONCOLOGY PATIENTS

Danielle Waldron, Leanne Kennedy, Heidi Klepin, And Suzanne Carroll
Wake Forest University Baptist Medical Center - PGY1 - Winston-Salem, NC

Purpose/Background: Hematology and oncology patients are a population at risk for more serious injuries due to falls, because many patients are thrombocytopenic. Many falls are likely related to medications that may cause sedation and/or drowsiness. These medications are regularly used in this patient population. The purpose of this study was to assess the number of falls in the adult inpatient hematology and oncology services and the relationship to medications.

Methodology: This study was a matched case-control study evaluating the relationship of medications as they relate to falls. Benzodiazepines, phenothiazines, opioids, and antihypertensives were evaluated. Adult hematology and oncology patients who had a documented fall from January to December 2010 were identified, and the time to fall was recorded. They were matched 1:2 to an adult hematology and oncology patient who did not fall, according to age, admission diagnosis, and length of stay. Collected data included patient demographics, cancer and admission diagnoses, medications administered within 4 and 24 hours of falls, date and time of fall, and harm score. Patients were excluded if they were not ambulatory or had a primary CNS malignancy or metastasis. The primary objective was to evaluate the relationship between medication use and falls in a four hour time period.

Results:

Conclusions:

Presentation Objective: Evaluate the relationship between medication use and falls. **Self-Assessment:** Do certain medications cause falls in hematology/oncology patients?

4:00

Room H

ONC

ABSTRACT REPRODUCTION FORM

IMPACT OF AN INPATIENT ANTICOAGULATION MONITORING PROGRAM Shenita S. Thompson, Dave Flickinger, Christine Hannan, Laura Holden Palmetto Health Richland PGY1 Pharmacy - Columbia, SC

Purpose/Background: National Patient Safety Goal 03.05.01 addresses reducing the likelihood of patient harm associated with anticoagulant therapy. Standard practice at Palmetto Health Richland is to have the patients physicians manage their warfarin therapy inpatient. To satisfy NPSG3, the PH Heart Hospital pharmacy team implemented a new monitoring program where a pharmacist or a student pharmacist tracks the dose and INR on every patient on warfarin and makes interventions, with the physicians permission, and provides patient education. The objective of this study is to demonstrate the efficacy of the Heart Hospital warfarin monitoring program as compared to traditional hospital warfarin monitoring program.

Methodology: Data for this study will be collected retrospectively on 200 patients who received inpatient warfarin. Each patient will have a warfarin dose and corresponding INR obtained daily during admission. The primary outcome of this study will be to demonstrate the efficacy of the Heart Hospital monitoring program as compared to traditional hospital warfarin monitoring program assuming a 20% difference in the number of days a patient s INR remains in goal range during their hospital stay. Secondary outcomes that will be analyzed are: percentage of patients educated, percentage of supratherapeutic INRs, percentage of subtherapeutic INRs, and number of significant drug interactions with warfarin and the following: sulfamethoxazole/trimethoprim, triazole antifungals, HMG-CoA inhibitors, amiodarone and fluoroquinolone antibiotics.

Results:

Conclusions:

Presentation Objective: Recognize the positive role pharmacists play in monitoring anticoagulation for inpatients. **Self-Assessment:** What are two benefits an inpatient anticoagulation pharmacist can have on warfarin therapy?

4:00

Room I

IM

ABSTRACT REPRODUCTION FORM

EVALUATION OF WARFARIN MANAGEMENT PRE- AND POST-IMPLEMENTATION OF AN INPATIENT PHARMACIST-DRIVEN WARFARIN DOSING SERVICE Harjot Jassal, Amy Knoblock Baptist Hospital Pensacola - Pensacola, FL

Purpose/Background: Routine monitoring and management is crucial in order to reduce adverse drug events associated with warfarin use and to improve patient outcomes. In 2008, the Joint Commission established as National Patient Safety Goal 3E: reduce the likelihood of patient harm associated with the use of anticoagulation therapy. At Baptist Hospital, there is no consistent standard of inpatient anticoagulation monitoring by the pharmacy department. The primary objective of the study is to evaluate the impact of a pharmacist-driven warfarin dosing service on anticoagulation management.

Methodology: Charts for all patients treated with warfarin at Baptist Hospital from April 1st, 2010 to March 31st, 2011 will be reviewed. The following will be collected for all patients: demographics, indication, length of warfarin therapy, INR values, action taken on critical lab values, time in therapeutic range, and thromboembolic and bleeding events will be obtained. Data will be retrospectively examined for the time period of April 1st, 2010 to September 30th, 2010. A protocol will be initiated to guide pharmacist-driven warfarin dosing.

Results: Pending

Conclusions: Pending

Presentation Objective: Identify the outcomes of a pharmacist-driven warfarin service on anticoagulation management. **Self-Assessment:** What role (s) can pharmacists play in management of oral anticoagulation (including dabigatran)?

4:00

Room J

IM

ABSTRACT REPRODUCTION FORM

IMPACT OF COMMUNITY-BASED HYPERTENSION SCREENINGS
Mina Yun, Michell Redding, Andi Clark, Mark Carmon
Mercer University School Of Pharmacy - Atlanta, GA

Purpose/Background: Community hypertension screenings are performed in retail pharmacies frequently, however, the actual impact of these screenings are unknown. Pharmacists are the most accessible healthcare professionals to the public, and have the potential to identify patients with hypertension that are not aware or not controlled and help aid in providing education and counseling. The purpose of this study is to analyze whether these screenings have any clinical use in motivating patients to seek further care, social use to increase positive perceptions of community pharmacists, and economic use to increase profitability for retail stores.

Methodology: Blood pressure screenings will be performed in different community pharmacy stores. Advertisement for screening s will include flyers posted in the pharmacy and surrounding businesses. Subjects will be recruited on site and asked to fill out a short questionnaire on past medical history and a survey on their perception of community pharmacists. Both men and women age 18 and older with pre-hypertensive or hypertensive readings will be included. Subjects will be followed up with mail-in or phone survey to collect patient s actions post screening and follow up survey on pharmacist perception. Sales data will be compared for front end and pharmacy stores the day of blood pressure screening with sales data from the same day of the week prior.

Results:

Conclusions:

Presentation Objective: To evaluate the post effects of community-based hypertension screenings **Self-Assessment:** Are doing these blood pressure screenings helpful to patients healthcare and can they increase positive perception of community pharmacists?

4:00

OLY 1

CP

ABSTRACT REPRODUCTION FORM

PHARMACY STUDENT KNOWLEDGE RETENTION AFTER COMPLETING A SIMULATION USING HIGH-FIDELITY MANNEQUINS COMPARED TO A WRITTEN CASE

Douglas R. Wylie, A. Shaun Rowe, Andrea S. Franks, Shauntá M. Ray
University Of Tennessee Medical Center - Knoxville - Knoxville, TN

Purpose/Background: Health professions curricula are beginning to use simulation mannequins to teach and evaluate student performance and competency. Literature describing simulation mannequin applications in Doctor of Pharmacy curricula include teaching and evaluating students' skills in interdisciplinary team activities, Advanced Cardiovascular Life Support (ACLS), and physical assessment. The objective of this study is to compare student pharmacists' knowledge retention after completing a patient case featuring a simulation mannequin to students who completed a written patient case and to assess and compare self-reported confidence with the material.

Methodology: Fourth-year Doctor of Pharmacy students enrolled in the Drug-Induced Disease elective were randomized to participate in a team assignment with either a written case or a simulated patient case with a high-fidelity mannequin. Prior to case completion, each student completed a pre-test to assess baseline knowledge and a survey to assess comfort with recognizing signs and symptoms of an acute overdose of oxycodone and acetaminophen, recommending therapy, and preparing medications for administration. After the team assignment, each student completed a post-test and another survey. Twenty-five days later, the students completed a post-test and survey.

Results: Mean pre-test scores were similar. Both the simulation and written case groups scores increased from pre-test to post-test (11.46 ± 2.634 to 13.15 ± 1.772 ; $p = 0.002$) (12.00 ± 1.581 to 13.92 ± 0.862 ; $p = 0.007$), respectively.

Conclusions:

Presentation Objective: Describe the impact of simulation mannequin technology on students' knowledge and confidence. **Self-Assessment:** Should simulation mannequins be incorporated into the pharmacy curriculum?

4:00

OLY 2

ADM

ABSTRACT REPRODUCTION FORM

HEALTH LITERACY EFFECTS ON PATIENT COMPLIANCE AND VARIATION BETWEEN AN INNER CITY AND A RURAL POPULATION

Megan G. Monroe, Roger D. Lander
Samford University - Birmingham, AL

Purpose/Background: Adequate health literacy is vital in comprehending medical information. In patients requiring medication, compliance is imperative for treatment; especially for chronic conditions. The objective of this study is to establish the effect of health literacy on patient compliance and determine if a difference exists between the inner city and rural populations.

Methodology: Patients recruited from the Jefferson County and Perry County Departments of Health will be asked to fill out a demographic survey requesting the following information: age, gender, ethnicity, highest level of education completed, co-morbidities, current medications (including how they take them), the pharmacy at which their medications are filled or the pharmacy phone number, and the patient's perceived compliance assessment. The Rapid Estimate of Adults Health Literacy in Medicine (REALM) will be used to determine a patient's health literacy. Patients will be included if they are at least 18 years of age, have at least one chronic disease and are on at least one medication for that disease. Patients will be excluded if any data is missing or incomplete or if pharmacy information is not available for the 6 months prior to their interview.

Results:

Conclusions:

Presentation Objective: Explain the effects of low health literacy on patient care. **Self-Assessment:** Health literacy includes the ability to:

- Understand health information
- Read medication directions
- Comprehend test results
- Analyze risks and benefits

4:00

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

EVALUATION OF A PRIMARY CARE-BASED DEPRESSION SURVEILLANCE PROGRAM

Delmonte M; Dolan-Soto D; Weil A; Young-Wright K; Bryant Shilliday B
University Of North Carolina Hospitals PGY1 Pharmacy - Chapel Hill, NC

Purpose/Background: To evaluate the use of a standardized treatment algorithm for the screening and management of depression in a primary care-based outpatient clinic. Specific aims are to assess appropriate utilization of the algorithm by health care providers and the impact of algorithm use on depression outcomes.

Methodology: A single-center retrospective chart review evaluating the management of depression in the UNC Internal Medicine Clinic will be performed. The adherence to and impact of revisions made to a standardized treatment algorithm will be assessed. Data of interest include: changes in antidepressant therapy, psychiatric or social-work referral, and time to patient follow-up. Depression management for patients with baseline Patient Health Questionnaire (PHQ-9) scores calculated before the revisions were made will be compared to those with baseline scores obtained after. PHQ-9 scores obtained during follow-up will be compared to baseline to assess clinical improvement over time, suggested by a reduction in PHQ-9 of 5 points or more. Patients will be included if a baseline PHQ-9 was performed and a score of at least 10 points was obtained (moderate-severe depression). Patient exclusion criteria includes a PHQ-9 score of 9 or lower (mild depression) or if baseline PHQ-9 data is not available.

Results:

Conclusions:

Presentation Objective: Describe the benefits of using a standardized treatment algorithm for the management of depression in a primary care clinic. **Self-Assessment:** Which of the following is a benefit of using a standardized algorithm for the screening, monitoring, and treatment of depression in a primary care clinic?

4:00

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

ADHERENCE TO COMMUNITY ACQUIRED PNEUMONIA GUIDELINES FOR EMPIRIC ANTIPSEUDOMONAL ANTIBIOTIC THERAPY IN THE EMERGENCY DEPARTMENT

David Toncray Jr., Patrick Aaronson, Sharon Basile, Katie Desimone
Shands Jacksonville Department Of Pharmacy - PGY1 - Jacksonville, FL

Purpose/Background: In 2007, the Infectious Diseases Society of America / American Thoracic Society (IDSA/ATS) published recommendations for the medical management of patients with community-acquired pneumonia (CAP), including risk factors for infection with *Pseudomonas aeruginosa* species. Inappropriate management of CAP has been associated with deleterious outcomes and significant increases in costs to patients. This study will investigate adherence to the IDSA/ATS guidelines and Centers for Medicare and Medicaid Services (CMS) core measures in patients diagnosed with CAP who are at risk for *P. aeruginosa*.

Methodology: This is an Institutional Review Board approved retrospective observational analysis evaluating patients in the Emergency Department from January 2008 to August 2010 who were diagnosed with CAP and were prescribed antipseudomonal antibiotics. Primary objective is to determine if antipseudomonal antibiotics are being over-prescribed in patients with CAP who do not have risk factors for *P. aeruginosa* according to the IDSA/ATS consensus guidelines. The risk factors for *P. aeruginosa* that will be assessed include structural lung disease, chronic systemic corticosteroid use, and prior antibiotic therapy. Patients will be stratified into appropriate or inappropriate groups based on antipseudomonal antibiotics received.

Results:

Conclusions:

Presentation Objective: List risk factors for CAP infection from *P. aeruginosa*. **Self-Assessment:** When would it be appropriate to include antipseudomonal antibiotics when empirically treating CAP in the ED?

4:20

Room A

CCM

ABSTRACT REPRODUCTION FORM

EVALUATION OF DEXMEDETOMIDINE USE IN ADULT PATIENTS IN A COMMUNITY HOSPITAL

Scott A, Butler K, Plange N, Wright D, Patel R, Parker T, Edwards L
Piedmont Hospital - Atlanta, GA

Purpose/Background: Dexmedetomidine (Precedex®) is a selective α_2 -adrenergic receptor agonist used for sedation in intensive care units and procedural sedation. Current literature suggests that dexmedetomidine offers potential advantages, including fewer side effects and decreased time to extubation compared to other sedatives. This study is designed to evaluate prescribing indications, utilization, and adverse effects of dexmedetomidine therapy.

Methodology: A concurrent evaluation of dexmedetomidine use was performed on inpatients who received dexmedetomidine during a 3-month period. Medical charts were reviewed and data obtained included indications for use, duration of therapy, dosing, sedation scores, and respiratory status. Concomitant continuous sedatives and hemodynamic events were documented as well. The primary objective of the study is to evaluate the appropriateness of use. The secondary objectives are to review duration of therapy, dosage, use of concurrent continuous sedatives and/or analgesics, ICU length of stay, and adverse drug reactions.

Results: To be presented at SERC

Conclusions: To be presented at SERC

Presentation Objective: Discuss dexmedetomidine use and identify potential areas of improvement for utilizing this medication in critical care units. **Self-Assessment:** What are some areas in which pharmacists can intervene to ensure dexmedetomidine is used appropriately in their institutions?

4:20

Room B

CCM

ABSTRACT REPRODUCTION FORM

ANALYSIS OF C. DIFFICILE INFECTION MANAGEMENT AT AN ACADEMIC TERTIARY CARE MEDICAL CENTER

Angela S. Loo, Cori L. Nelsen
Vanderbilt University Medical Center - Nashville, TN

Purpose/Background: Updated recommendations on diagnosis and treatment of *C. difficile* infections have recently been published by the Society for Healthcare Epidemiology of America and the Infectious Diseases Society of America. The guidelines recommend classification of *C. difficile* infections as mild or moderate, severe, or severe and complicated to guide selection of antimicrobial agents. Since the new guidelines, it is unclear whether management of *C. difficile* infections has changed at Vanderbilt University Medical Center. The purpose of this study is to evaluate current practice regarding treatment of *C. difficile* infections at Vanderbilt and identify appropriateness of antimicrobial therapy based upon the updated guidelines.

Methodology: Patients included were ≥ 18 years with positive or negative *C. difficile* toxin tests during 2010 and received treatment for *C. difficile*. 100 patients were randomly selected for retrospective chart review to collect the necessary data for classification of *C. difficile* infection, allowing a confidence level of 95% and a margin of error of 10%.

Results: 1,270 patients were tested for *C. difficile* during 2010, for a total of 2,714 stool toxin tests. 2,528 (93%) of the tests had negative results, while 174 (6.4%) had positive results. 102 patients have been randomly selected for chart review.

Conclusions: In evaluating *C. difficile* infections, it is important to validate treatment in *C. difficile* positive patients, as well as characterize how toxin-test negative patients are managed.

Presentation Objective: Describe the *C. difficile* classification system based upon severity from the SHEA-IDSA guidelines. **Self-Assessment:** What are appropriate treatments for mild and severe *C. difficile* infections?

4:20

Room C

ID

ABSTRACT REPRODUCTION FORM

EVALUATION OF INPATIENT MEDICATION ERRORS IN HIV PATIENTS RECEIVING HAART

Susan Norman, Samantha Bailey, Jason Brady
Orlando Health - Orlando, FL

Purpose/Background: The use of highly active antiretroviral therapy (HAART) in HIV patients can decrease morbidity and mortality. During hospitalization there should be an emphasis to minimize interruption of HAART regimens in order to prevent or reduce drug resistance. An evaluation of the number and type of errors will be useful to identify possible improvements in the care of HIV inpatients. This study will also evaluate the clinical pharmacist's role in identifying and reconciling these errors.

Methodology: Hospitalized patients ≥ 18 years of age receiving HAART will be concurrently identified and enrolled. Information collected will include patient demographics, home antiretroviral regimens, ordered inpatient medications, and pertinent labs. Errors related to medication reconciliation, incomplete regimens, dosing, drug interactions, scheduling, and delays in therapy will be recorded. In addition, the number of errors, number of pharmacist interventions, and intervention acceptance will be collected.

Results: Fifty-six patients have been currently evaluated. Medication reconciliation was done correctly in 66% of patients. An average of 1.46 errors was identified per patient, necessitating an average of 1.16 interventions per patient. Results to date show a 100% acceptance rate of pharmacist intervention.

Conclusions: Review of data, thus far, shows a high rate of errors related to antiretroviral use throughout hospitalization. Clinical pharmacist review has proven to be an effective way to identify and rectify these errors.

Presentation Objective: Describe the role of a clinical pharmacist in assuring correct use of antiretrovirals in hospitalized patients. **Self-Assessment:** What was the most common error identified in this study?

4:20

Room D

ID

ABSTRACT REPRODUCTION FORM

SAFETY AND EFFICACY OF INTRAVENOUS INDOMETHACIN VERSUS
IBUPROFEN LYSINE FOR THE TREATMENT OF PATENT DUCTUS ARTERIOSUS
Lyndsey N. Hogg, Karl Ruch, Marci Bemis
Mission Hospital PGY1 Pharm - Asheville, NC

Purpose/Background: Patent ductus arteriosus (PDA) is a common congenital heart abnormality in premature neonates. Indomethacin, a cyclooxygenase inhibitor, has been the standard therapy for closure of PDA. However, it is associated with reduced blood flow to the brain, kidneys and gastrointestinal tract. Ibuprofen lysine, another cyclooxygenase inhibitor, is as effective in closure of PDA but may produce fewer side effects than indomethacin. This study assesses differences in safety and efficacy of intravenous indomethacin and ibuprofen lysine in the treatment of PDA in clinical practice at Mission Hospital.

Methodology: A retrospective observational chart review of a random sample of patients admitted to the Mission Hospital Neonatal Intensive Care Unit between January 1, 2005 and June 30, 2010 who received either intravenous indomethacin or ibuprofen lysine for the treatment of PDA. Safety data collected include the following: serum creatinine and urine output during treatment; occurrence of necrotizing enterocolitis, gastrointestinal bleed, thrombocytopenia, intraventricular hemorrhage, and pulmonary hypertension. Efficacy data collected include: treatment success; number of doses required for successful closure of PDA; requirement of surgical ligation of PDA.

Results:

Conclusions:

Presentation Objective: List the reported differences in adverse effects between indomethacin and ibuprofen lysine. **Self-Assessment:** What is the reported benefit of ibuprofen lysine versus indomethacin for treatment of PDA?

4:20

Room G

PED

ABSTRACT REPRODUCTION FORM

INFECTIOUS COMPLICATIONS ASSOCIATED WITH THE USE OF ANTITHYMOCYTE
GLOBULIN IN RIC ALLO-SCT
Kara Loth; Seema Naik; Leanne Kennedy; David Hurd
Wake Forest University Baptist Medical Center- Oncology - Winston-Salem, NC

Purpose/Background: Due to the mechanism of antithymocyte globulin (ATG), its use in reduced intensity conditioning (RIC) allogeneic (allo) transplant regimens may increase the incidence of infection. This study analyzes the type and incidence of infectious complications in RIC allo-SCT recipients conditioned with or without ATG.

Methodology: Electronic medical records were utilized to identify all adult patients with hematologic malignancies receiving a RIC allo-SCT between January 2001 and December 2009. Patients with aplastic anemia or deceased within 30 days of transplant were excluded. The primary outcome included the rate of infection from engraftment to one year after transplant. Secondly, the rate of infection during the engraftment period, incidence of acute and chronic GVHD, relapse rate, overall survival, and disease free survival at one year were investigated.

Results: A total of 63 patients were included. More patients receiving ATG experienced overall infections (81% vs 56%, p=0.11). In the ATG group 45.2% developed multiple infections versus 18.8% without ATG (p=0.032). There was no significant difference with regard to secondary outcomes.

Conclusions: The overall incidence of infection as well as the incidence of viral infection alone was significantly increased in patients treated with ATG. More studies need to be conducted to determine the significance of these infections and the potential for prophylaxis or reduced immunosuppression.

Presentation Objective: Understand the infectious complications associated with the use of ATG during allogeneic stem cell transplant. **Self-Assessment:** Does the use of antithymocyte globulin in a RIC allo-SCT increase the incidence of infection?

4:20

Room H

ONC

ABSTRACT REPRODUCTION FORM

DESCRIPTIVE ANALYSES OF COPD KNOWLEDGE, OUTCOMES, AND PATIENT
DEMOGRAPHICS
Robert S. Helmer, Shauntá M. Ray, Andrea S. Franks, Lorraine S. Wallace
University Of Tennessee Medical Center - Knoxville - Knoxville, TN

Purpose/Background: The aim of this study is to assess relationships between chronic obstructive pulmonary disease (COPD) knowledge, patient demographics, and COPD-related outcomes (COPD exacerbations, emergency department visits, hospitalizations). The COPD-Questionnaire (COPD-Q) is a reliable, validated tool, for assessing COPD knowledge in patients with low health literacy. However, there are no current studies evaluating how the assessments made by the COPD-Q relate to disease outcomes. Using the COPD-Q and patient demographics, we hope to improve identification of those patients at increased risk for poor outcomes due to COPD.

Methodology: The design of this study is descriptive and prospective in nature. The study population will consist of COPD patients at a family medicine residency practice site. After determining study eligibility through ICD-9 code or documentation of common COPD medications, randomly selected consenting patients will be administered a short telephone survey assessing COPD knowledge, demographic data, and health literacy. Following the verbal survey, additional information pertaining to COPD outcomes will be extracted from the electronic medical record.

Results:

Conclusions:

Presentation Objective: Describe how the COPD-Q could help in identifying patients at risk for poor COPD outcomes. **Self-Assessment:** How may the COPD-Q enhance the role of a clinical pharmacist?

4:20

Room I

IM

ABSTRACT REPRODUCTION FORM

PERIOPERATIVE BETA BLOCKER THERAPY IN NON-CARDIAC SURGERY
Carla Evans, Colleen Jakey, Sharon Gerson
Bay Pines VA Medical Center - Bay Pines, FL

Purpose/Background: Current evidence indicates perioperative beta blocker therapy may benefit some, but not all patients. Studies have demonstrated potential harm associated with the initiation of beta blocker therapy in patients at low risk for cardiac events during non-cardiac surgery. The purpose of this project is to develop and implement a protocol based upon current literature surrounding perioperative beta blocker therapy in patients undergoing non-cardiac surgery.

Methodology: A retrospective medication utilization evaluation was performed to identify if the appropriate patients were being initiated on beta blockers for non-cardiac surgery. Inclusion criteria consisted of patients over the age of 40 years who were scheduled for non-cardiac surgery. Patients currently on beta blocker therapy for pre-existing conditions and who continued this therapy during and after surgery were excluded from the analysis. In addition, patients with absolute contraindications to beta blockers such as hypersensitivity, asthma, AV block, bradycardia, cardiogenic shock, and heart failure were excluded. A protocol, based upon current literature, was developed and implemented to assist in evaluating a patient's risk of experiencing a cardiovascular event during non-cardiac surgery and to direct appropriate therapy.

Results:

Conclusions:

Presentation Objective: Discuss the development and implementation of a perioperative beta blocker therapy protocol in non-cardiac surgery patients. **Self-Assessment:** Which patients are candidates for perioperative beta blocker therapy for non-cardiac surgery?

4:20

Room J

IM

ABSTRACT REPRODUCTION FORM

DEVELOPMENT AND IMPLEMENTATION OF A PHARMACIST-DRIVEN TRAVEL HEALTH PROGRAM IN AN INDEPENDENT COMMUNITY PHARMACY
Amanda McCall, Pamala Marquess, Michell Redding
Mercer University School of Pharmacy - Atlanta, GA

Purpose/Background: The purpose of this study is to improve patient health status by providing education about health risks when traveling abroad, provide education on good health practices to prevent food and water borne diseases while abroad, and to provide necessary medications and immunizations to patients traveling abroad

Methodology: The program will require an initial consultation via telephone or in person, an individualized patient appointment, and a follow-up for any further immunization needs. Pre-travel history will be taken in order to assess and plan for the patient's travel-related needs. Once needs and requirements have been established, a pharmacist will meet with the patient to provide the necessary education, immunizations, and any oral medications required for travel. All patient information collected from pre-travel history, patient appointment, and follow-up appointment will be kept in an individualized patient record. An anonymous survey will be provided at the conclusion of the patient's visit to determine satisfaction with the services of the clinic

Results:

Conclusions:

Presentation Objective: Discuss the potential pros and cons of developing a pharmacist-driven travel health program. **Self-Assessment:** What is one area of community pharmacy practice where pharmacists can expand their immunization services and improve patient education?

4:20

OLY 1

CP

ABSTRACT REPRODUCTION FORM

COMPARATIVE SMOKING CESSATION RATES OF NICOTINE REPLACEMENT THERAPY (NRT), BUPROPION, NRT AND BUPROPION, OR VARENICLINE
Michelle Edwards, Lori Bennett, Dorothy Jenrette
Ralph H. Johnson VA Medical Center - Charleston, SC

Purpose/Background: The purpose of this study is to compare smoking cessation rates of NRT, bupropion, NRT plus bupropion, or varenicline thirty-six weeks after initiation in a veterans smoking cessation clinic. Ralph H. Johnson VA Medical Center is a smoke free facility that offers weekly smoking cessation counseling classes. Veterans are encouraged to stop smoking and are educated on the health risks associated with tobacco smoke, such as heart and lung disease and cancer. Coping mechanisms and medications such as nicotine replacement gum, lozenges, patches, bupropion, or varenicline are offered as treatment options.

Methodology: This was a medication use evaluation using an appointment database to identify participants enrolled in a smoking cessation clinic. Patients who attended at least one smoking cessation clinic appointment between January 1, 2007 and March 31, 2010 and received a smoking cessation medication dispensed by the VA Pharmacy during that time were included in the study. The smoking cessation rates in the four groups were compared 36 weeks after initiation of the initially prescribed regimen. Time to quit was determined in the subgroup of patients who successfully stopped smoking. Additionally, the initial and final medication regimens prescribed in the study population that successfully stopped smoking were analyzed.

Results:

Conclusions:

Presentation Objective: List smoking cessation regimens associated with the highest smoking cessation rate in a VA smoking cessation clinic? **Self-Assessment:** Are patients able to successfully stop smoking with the initially prescribed regimen most of the time?

4:20

OLY 2

PI

ABSTRACT REPRODUCTION FORM

EFFECTIVENESS OF HYPERTENSION AND DIABETES CLINICS IN PERRY COUNTY, ALABAMA
Pilar Z. Murphy
Samford University - Birmingham, AL

Purpose/Background: To investigate the effectiveness of the pharmacist-enabled hypertension and diabetes clinics in Perry County, Alabama and their impact on reducing modifiable cardiovascular risk factors in patients utilizing the clinical services.

Perry County is a rural community with one of the highest stroke death rates in America. It is currently served by two local pharmacies and five physicians; and the nearest hospital is located 25 miles away in a neighboring county. Collaboration between Sowing Seeds of Hope and McWhorter School of Pharmacy provides free pharmacist-enabled cardiovascular risk reduction clinics at the Perry County Health Department to improve health outcomes for patients by helping them to persistently manage their disease states.

Methodology: This study involves a retrospective chart review of clinic records to examine changes in cardiovascular risk factors. Blood pressure, body mass index, and weight data from January 2005 through June 2010 are being analyzed to determine if there has been a decrease in these factors since patients began attending clinic. The comparison data is from the patient's most recent clinic visit prior to July 1, 2010. Two-sample t-test for unequal variances is being used to determine differences between the baseline and most recent clinical measurements.

Results:

Conclusions:

Presentation Objective: To describe the role the hypertension and diabetes clinics play in reducing modifiable risk factors for the patients in Perry County. **Self-Assessment:** The stroke death rate in Perry County has declined by what percent in recent years?

4:20

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

EFFECT OF PHARMACIST INTERVENTION ON MEDICATION USE AND HEALTHCARE RESOURCE UTILIZATION AT TRANSITIONS OF CARE
Emily Hawes, Sarah Ford, Whitney Maxwell, Jessica Mangun, Feng-Chang Lin
University Of North Carolina Hospitals PGY1 Pharmacy - Chapel Hill, NC

Purpose/Background: Medication errors around hospital discharge are known to result in frequent rehospitalization and emergency department visits, yet no system focusing on medication use has been devised to help patients transition safely from hospital to home. The purpose of this study is to evaluate the effectiveness of a pharmacotherapy clinic visit after hospital discharge on the incidence of a composite of 30-day rehospitalization and emergency department visits as one primary outcome, and post-discharge medication discrepancies as a second primary outcome. Secondary objectives include evaluation of discharge-related satisfaction, 30-day rehospitalization, and 30-day emergency department visits.

Methodology: This study is a prospective, randomized, open-label trial comparing a pharmacotherapy clinic visit following hospital discharge focused on medication reconciliation and patient education with usual care.

Results: Of the 59 study subjects enrolled to date, 16 participants attended a pharmacotherapy visit, 9 patients were rehospitalized, and 9 subjects visited the emergency department. There were a total of 60 medication discrepancies primarily due to inappropriate continuation, omission, or dosing of a medication. Data collection is ongoing to capture event rates up to 30 days after discharge.

Conclusions:

Presentation Objective: Understand the complexity of medication discrepancies around transitions of care and the difficulty in establishing and assessing effectiveness of interventions to decrease these discrepancies. **Self-Assessment:** What barriers exist to improving medication use around transitions of care?

4:20

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

COMPARISON OF PULMONARY IMPROVEMENT ASSOCIATED WITH INHALED NITRIC OXIDE AND INHALED EPOPROSTENOL USE IN PATIENTS WITH ARDS

Bridget A. Scoville, Paul Tan, Donald Johnson, Patrick Aaronson
Shands Jacksonville Department Of Pharmacy - PGY1 - Jacksonville, FL

Purpose/Background: Short-term effects of inhaled nitric oxide (INO) have been shown to have physiologic benefits primarily within the first 24 hours. A constant dose after 24 hours leads to enhanced sensitivity, which will not allow for reductions in ventilation parameters. In contrast, the is limited literature available for the short-term oxygenation benefits of inhaled prostacyclins (e.g., epoprostenol). There are no known studies comparing the short-term oxygenation benefits of nitric oxide with those of epoprostenol. The aim of the study is to determine the degree of pulmonary improvement in patients with acute respiratory distress syndrome (ARDS) on an inhaled vasodilator.

Methodology: Eligible patients were e18 years, mechanically ventilated, and admitted to an intensive care unit (ICU). Pulmonary improvement was determined short-term using the PaO₂:FiO₂ ratio change on day 1. Day 0 was defined as the first day of inhaled vasodilator therapy. Secondary short-term outcomes included change in PEEP, FiO₂, PaO₂, and SaO₂. Secondary long-term outcomes include number of days on the ventilator, days in the ICU, and days until discharge. Outcome data was collected retrospectively using patient medical records and the hospital pharmacy order entry system. This study was approved by the University of Florida Institutional Review Board.

Results:

Conclusions:

Presentation Objective: Compare the short-term pulmonary improvement in the PaO₂:FiO₂ ratio between inhaled nitric oxide and inhaled epoprostenol. **Self-Assessment:** Should one inhaled vasodilator be preferred for ARDS treatment?

4:40

Room A

CCM

ABSTRACT REPRODUCTION FORM

EMERGENCY DEPARTMENT PHARMACIST IMPACTING THE MEDICATION RECONCILIATION PROCESS

Carolyn Tete, Mindy Durkin, William Braun, Charles Guastella
St. Anthony's Hospital - PGY1 - St. Petersburg, FL

Purpose/Background: Several studies have demonstrated that medication histories obtained by emergency department (ED) physicians and nurses are often incomplete compared to those obtained by a clinical pharmacist. Despite this evidence, a survey conducted by the American Society of Health System Pharmacists in 2008 found that only 6.8% of the hospitals surveyed had a pharmacist assigned to the ED. Prior to September 1, 2009, St. Anthony's Hospital utilized physicians and nurses to complete the medication history process. Currently, two emergency department pharmacists have taken on the position of improving this process. The primary objective of this study is to evaluate the impact that an ED pharmacist has on the proper documentation of the medication history.

Methodology: This was a retrospective chart review of 300 patients admitted to St. Anthony's Hospital through the ED. The data collection period was from June 2009 to August 2009 for Pre-ED Pharmacist analysis and June 2010 to August 2010 for Post-ED Pharmacist analysis. Exclusion criteria included patients: less than 16 years old, intubated/mechanically ventilated and psychiatric related admissions. Our data collection consisted of evaluating the proper documentation of medications: frequency, route, formulation, dose, allergies, duplication, antibiotic start/stop dates and indicated day or date for weekly or monthly medications. We also evaluate the pharmacoeconomic impact an ED pharmacist has.

Results: Pending

Conclusions: Pending

Presentation Objective: Identify the crucial need for pharmacists in the ED and their impact on the medication reconciliation process. **Self-Assessment:** How has the pharmacist in the ED impacted the medication reconciliation process?

4:40

Room B

CCM

ABSTRACT REPRODUCTION FORM

EVALUATING THE INITIAL, EMPIRIC SELECTION OF ANTIBIOTICS FOR HEALTHCARE-ASSOCIATED PNEUMONIA IN A MILITARY TREATMENT FACILITY

Heather J. Rhodes-Pope
Womack Army Medical Center - Fort Bragg, NC

Purpose/Background: Risk factors for healthcare-associated pneumonia (HCAP) include nursing home or long-term care facility residence, acute care hospitalization for > two days within 90 days, recent intravenous antibiotic use, chemotherapy use, wound care within 30 days, and hospital or dialysis clinic visits. Previous literature reveals higher mortality rates in patients with pneumonia who are prescribed inappropriate initial therapy; HCAP patients are prescribed inappropriate empiric antimicrobials more often than community-acquired pneumonia (CAP) patients. Optimal outcomes are dependent on the recognition of HCAP risk factors and appropriate initial management. The objective of this study is to assess the initial, empiric selection of antibiotics among patients with HCAP and CAP to compare guideline-concordant prescribing patterns at Womack Army Medical Center.

Methodology: A retrospective, chart review of 165 patients e18 years old admitted to Womack Army Medical Center from October 5, 2008 to September 30, 2010 with Medicare Disease Related Group codes of 193,194, and 195 was conducted. All cases of ventilator-associated pneumonia (VAP) and hospital-acquired pneumonia (HAP) were excluded.

Results: Preliminary results (n=30) indicate approximately 60% of patients ages 76-92 years old are treated with inappropriate antibiotics. Approximately 77% of all patients had identifiable HCAP risk factors.

Conclusions: To be presented at SERC

Presentation Objective: To present final results comparing initial, empiric selections of antibiotics and discuss current HCAP guidelines **Self-Assessment:** According to current guidelines, what are appropriate therapies for patients with HCAP risk factors?

4:40

Room C

ID

ABSTRACT REPRODUCTION FORM

EVALUATION OF CEFEPIME 1 GRAM EVERY 6 H FOR TREATMENT OF GRAM-NEGATIVE BACTEREMIA

Matthew Helgeson, Deba Rihani, Robert Waite, Mark Wallace, C. A. Deryke
Orlando Health - Orlando, FL

Purpose/Background: Orlando Health employs a novel Cefepime (FEP) dosing regimen of 1 gram (g) IV every 6 h to maximize the free time above the minimum inhibitory concentration (> MIC). The purpose of this study is to evaluate patient outcomes with the novel dosing strategy versus conventional cefepime dosing regimens for Gram-negative bacteremia (GNB).

Methodology: Patients hospitalized at Orlando Health from 2007 to 2010 who received FEP for e 72 consecutive hours for treatment of GNB were retrospectively evaluated. Patients with concomitant Gram-positive bacteremia or fungemia, and those infected with organisms for which FEP is not clinically reliable were excluded. Clinical and microbiological outcomes were stratified based on the cefepime dosing regimen. In subgroup analyses, these outcomes were also compared based upon the infecting organism, the FEP MIC, and monotherapy versus combination therapy.

Results:

Conclusions:

Presentation Objective: Compare patient outcomes following FEP 1g IV every 6 h versus conventional FEP regimens. **Self-Assessment:** What is the rationale for using FEP 1 g IV every 6 h instead of package insert recommendations for the treatment of GNB?

4:40

Room D

ID

ABSTRACT REPRODUCTION FORM

CLONIDINE PLUS MORPHINE VERSUS MORPHINE MONOTHERAPY FOR TREATMENT OF NEONATAL ABSTINENCE SYNDROME

Emily Ludwig, Deborah Westbrook, John Olsson
Pitt County Memorial Hospital - Greenville, NC

Purpose/Background: Neonatal abstinence syndrome is characterized by withdrawal symptoms that may be caused by prenatal opioid exposure. Treatment and monitoring for this syndrome often results in extended hospitalizations. Treatment of symptoms usually involves a weaning process with the use of opioids. Pitt County Memorial Hospital most often uses morphine for this syndrome. Clonidine has proven to be an effective alternative for treating withdrawal symptoms in adults. Limited information in neonates suggests improved outcomes with clonidine. This study compares the use of morphine monotherapy to clonidine plus morphine at Pitt County Memorial Hospital for neonatal abstinence syndrome to determine the impact on length of stay.

Methodology: A retrospective chart review was performed on neonates that were in the newborn nursery at Pitt County Memorial Hospital from June 15, 2007 to September 30, 2010 that received oral morphine for neonatal abstinence syndrome. Treatment with clonidine plus morphine was implemented in October 2010 by East Carolina University Pediatrics. Parental consent was obtained to prospectively review the neonatal records of the patients receiving clonidine plus morphine. Patients in the neonatal intensive care unit were excluded from either review. Charts were reviewed for data including length of stay, cumulative morphine dose, and weight gain.

Results:

Conclusions:

Presentation Objective: Provide insight on the impact of alternative treatment options on patient outcomes in neonatal abstinence syndrome through comparison of morphine monotherapy to morphine plus clonidine. **Self-Assessment:** What symptoms of neonatal abstinence syndrome are mitigated with the use of clonidine?

4:40

Room G

PED

ABSTRACT REPRODUCTION FORM

EVALUATION OF PHARMACISTS INTERVENTIONS IN ALTERING THE PRESCRIBING PATTERNS FOR VTE TREATMENT IN CANCER PATIENTS

Vikki M. Steward, Hind Hamid, And Kimberly Hooker
DCH Regional Healthcare System - Tuscaloosa, AL

Purpose/Background: This project seeks to evaluate the current prescribing patterns for VTE treatment at DCH Regional Medical Center and pharmacists interventions to optimize anticoagulation therapy in cancer patients by following the current guidelines preferred recommendation for LMWH for 6 months as monotherapy.

Methodology: A retrospective chart review was conducted of cancer patients who were diagnosed with a VTE between January 2010 and June 2010 to assess the prescribed treatment regimen. Pharmacists interventions consisted of developing inpatient and outpatient VTE treatment pre-printed order forms and educating healthcare providers of the treatment recommendations. A concurrent intervention phase will also be conducted, and prescribing patterns after the interventions will be reviewed to evaluate the impact of pharmacists interventions.

Results: Thirty-nine of 54 cancer patients identified met inclusion criteria for the study. Pooled data for VTE treatment among these patients resulted in 3 patients (8%) being prescribed monotherapy with LMWH. Both inpatient and outpatient VTE treatment pre-printed order forms were developed and implemented to conveniently aid Medical Oncologists with the management of VTE. Education was provided to the Medical Oncologists, as well as, the nursing and pharmacy staff to emphasize the importance of complying with the treatment recommendations. Concurrent intervention and analysis of the research results are ongoing.

Conclusions:

Presentation Objective: To identify the preferred treatment of VTE in cancer patients **Self-Assessment:** What is the preferred treatment for VTE in cancer patients?

4:40

Room H

ONC

ABSTRACT REPRODUCTION FORM

COMPARISON OF EPINEPHRINE VERSUS NOREPINEPHRINE PLUS PHENTOLAMINE FOR HEMODYNAMIC SUPPORT FOLLOWING CABG SURGERY

Danielle Tice, Vivian Carlson
University Of Tennessee Medical Center - Knoxville - Knoxville, TN

Purpose/Background: Following coronary artery bypass graft (CABG) surgery, maintaining sufficient cardiac output may prove difficult and the use of vasoactive agents may be required to sustain adequate hemodynamic support. The purpose of this study is to evaluate the effect of epinephrine or norepinephrine plus phentolamine IV infusions on in-patient mortality post-CABG surgery.

Methodology: This study was reviewed and approved by the Institutional Review Board prior to commencement. Our study is a retrospective cohort analysis of patients admitted to the cardiovascular intensive care unit from November 1, 2010 through October 31, 2011. Patients that underwent CABG surgery accompanied by another surgical procedure or experience low cardiac output post-CABG surgery due to cardiac tamponade, graft occlusion, pneumothorax, valvular incompetence will be excluded. Data to be collected includes patient demographics, specific laboratory and procedural tests, previous myocardial infarction (MI), previous valve replacement/repair surgery, cardiac hemodynamics, and use of intra-aortic balloon pump. After collecting patient data we will compare the effects between the vasoactive agents utilized in our patient population. The primary endpoint is postoperative CABG surgery in-hospital mortality.

Results:

Conclusions:

Presentation Objective: Compare the efficacy of epinephrine versus norepinephrine plus phentolamine for postoperative hemodynamic support following coronary artery bypass graft (CABG) surgery. **Self-Assessment:** Do vasoactive agents have an effect on postoperative CABG surgery mortality?

4:40

Room I

IM

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF A DIRECT THROMBIN INHIBITOR (DTI) PROTOCOL IN HOSPITALIZED PATIENTS

Lisa Soderlind
DeKalb Medical Center - Decatur, GA

Purpose/Background: The direct thrombin inhibitors (DTIs), argatroban and lepirudin, are currently used at Dekalb Medical Center in the treatment of heparin-induced thrombocytopenia (HIT) and in patients with a heparin allergy that require alternative anticoagulation. Included in The Joint Commission's 2008 National Patient Safety Goal NPSG.03.05.01 is to reduce the likelihood of patient harm associated with the use of anticoagulants. DTIs are high risk, problem prone medications that require careful dosing and monitoring to avoid adverse events. Prior to this study, Dekalb Medical Center lacked a protocol for dosing these drugs. The purpose of this research was to evaluate if implementation of a direct thrombin protocol improved patient outcomes.

Methodology: A retrospective medication use evaluation of patients treated with argatroban or lepirudin was used to analyze patient outcomes and to develop a DTI protocol. The protocol was then implemented, and a prospective medical use evaluation of all patients ordered this protocol was conducted to determine if patient outcomes were improved compared to the medication use evaluation results achieved prior to the protocol development. Outcomes analyzed included time until two consecutive activated partial thromboplastin times (aPTTs) within target range, documentation of therapy, and incidence of adverse events related to DTI therapy.

Results:

Conclusions:

Presentation Objective: Describe the potential benefits of implementing a DTI protocol. **Self-Assessment:** What are the potential benefits of implementing a DTI protocol?

4:40

Room J

IM

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

SATISFACTION OF COMMUNITY PHARMACISTS WITH PROVIDING MEDICATION THERAPY MANAGEMENT SERVICES

H Causey, B Lingerfeldt, V Clnard, R Swanson, R Cisneros, C Herring, A Mclendon
Campbell University School of Pharmacy - Buies Creek, NC

Purpose/Background: Discuss results of a study evaluating the satisfaction of pharmacists providing Medication Therapy Management (MTM) services as a part of workflow in a community pharmacy setting.

Methodology: The primary objective was to describe community pharmacists overall satisfaction with MTM services at North Carolina Kerr Drug stores. The secondary objective was to determine which factors may contribute to pharmacists' desires to be involved with MTM services. Eligible participants included pharmacists licensed in North Carolina who were employed at Kerr Drug stores and providing MTM services. A twenty-two question survey was administered to consenting Kerr Drug pharmacists via email. Descriptive statistics were used to present demographic information and scores for each question. Correlations were evaluated between overall job satisfaction and questions pertaining to ease of incorporation into workflow, relationships with patients, comfort level with interventions, and knowledge base to perform interventions.

Results:

Conclusions:

Presentation Objective: Assess pharmacists' satisfaction in providing targeted MTM interventions in a community pharmacy setting. **Self-Assessment:** What was the greatest factor limiting pharmacists' participation in MTM at Retail?

4:40

OLY 1

CP

EVALUATION OF PHARMACY ERROR RATES AFTER IMPLEMENTATION OF NEW PHARMACY ORDER ENTRY COMPUTER SOFTWARE

Wayne Conrey
Northside Hospital - Atlanta, GA

Purpose/Background: It is estimated that more than one million medication errors occur in US hospitals yearly accounting for over 7,000 deaths. Advances in technology have been instrumental in reducing errors. Our institution recently implemented pharmacy software with customized decision support capabilities. The purpose of this study was to survey the effect of software implementation on medication errors. We identified the most common errors, and made improvements in software and medication dispensing methods to reduce errors.

Methodology: This study employed a retrospective cohort design. Cohort one included historical error data and served as control. Cohort two included errors incurred after implementation of new pharmacy software. Pharmacy errors were segregated into three categories; transcription errors, non-transcription errors, and dispensing errors. Analysis was performed to determine differences from historical data and interventions were made to reduce future errors.

Results: Historical data reveal transcription errors account for 77% of errors, including 32% medication omissions, and 33% dosing errors. Dispensing errors accounted for 16% of all errors, 44% of which were incorrect product and 56% were therapy delays. Non-transcription errors accounted for 6% of errors, 63% of which were incorrect patient and 37% known allergies. Overall, most common errors were dosing and omissions, each accounting for 25% of errors.

Conclusions: Baseline data indicate potential for error reduction with decision support software.

Presentation Objective: Describe how pharmacy software can affect error types **Self-Assessment:** What improvements can be made to pharmacy medication system to improve safety?

4:40

OLY 2

PI

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

CLINICAL PHARMACY SERVICES TARGETED TO A HIGH RISK DIABETIC PATIENT POPULATION IN A PUBLIC HEALTH SETTING

Jessica W. Skelley, B. Deeann Dugan, Roger D. Lander
Samford University - Birmingham, AL

Purpose/Background: The purpose of this study is to identify high risk patients with diabetes and provide targeted clinical pharmacy services through interdisciplinary collaboration to improve patient outcomes and patient safety in the model of a medical home.

Methodology: Sixty-eight patients were identified at two Jefferson County Department of Health (JCDH) clinics as being high risk patients, defined as an A1C e 9. In addition to A1C requirements, patients had to have been seen by their JCDH primary care physician >2 times in the past calendar year. Selected high risk patients received structured diabetes education and medication management through a pharmacist-run clinic at a frequency of every 4-6 weeks, and their progress was monitored and reported monthly. Patients were also screened for adverse drug events and potential adverse drug events. To determine if the focused intervention positively impacted patient safety and outcomes, results were compared to patients at other JCDH clinics with similar patient populations.

Results: Pending.

Conclusions: Pending.

Presentation Objective: Recognize the impact of uncontrolled diabetes and medication errors on the healthcare system in the United States, and the role of pharmacists in alleviating this burden. **Self-Assessment:** Which of the following is an INCORRECT statement?

- The cost of diabetes exceeds \$174 billion annually
- In one study 50% of patients had at least one discrepancy found during medication reconciliation
- Over 60% of patients with diabetes fail to ob

4:40

PARTH 1

AMB

OPIOID PRESCRIBING PRACTICES IN PRIMARY CARE SETTING FOR CHRONIC NONCANCER PAIN (CNCP) TREATMENT IN A VETERANS POPULATION

Noushin Aminjavahery, Ripple Sekhon, Mary Roswarski, Camille Robinette
Hefner VA Medical Center - Salisbury, NC

Purpose/Background: CNCP is common in primary care setting and is often associated with substantial disability and distress. More than 50% of male Veteran patients in primary care report chronic pain. The American Pain Society (APS), American Academy of Pain Medicine (AAPM), and the Veterans Affairs/Department of Defense (VA/DoD) have published clinical practice guidelines for the use of chronic opioid therapy in CNCP. The guidelines endorse the safe and effective treatment plan for CNCP should include use the lowest and most effective dose of opioid medications, management agreement, and urine drug screen.

Methodology: All Veterans with CNCP between the ages of 18 and 87 years who received opioid prescriptions Schedule II for three or more months from July 2009 to August 2010 will be eligible for this study. The exclusion criteria will include age more than 88 years, acute or cancer pain diagnosis, hospice status, methadone for detoxification, current inpatient status, residence in long-term care facility, and HIV patients.

Results:

Conclusions:

Presentation Objective: The primary objective of this study is to measure compliance with the above guidelines for treatment of CNCP in primary care clinic patients in a Veterans Affairs Medical Center (VAMC). The secondary objective is to define the spectrum of chronic noncancer **Self-Assessment:** What routine monitoring is recommended in patients receiving opioid therapy for chronic non-cancer pain?

4:40

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

USE OF IMPENEM-CILISTATIN IN THE SURGICAL ICU FOR EMPIRIC TREATMENT OF SUSPECTED NOSOCOMIAL GRAM-NEGATIVE INFECTIONS

Derek Burden, Prasad Abraham
Grady Health System - Atlanta, GA

Purpose/Background: The development of multi-drug resistant Gram-negative infections has steadily increased over the years and is associated with higher mortality rates, prolonged hospital stays, and increased costs. In some circumstances, few antibiotics exist that remain effective. Because of this, there has been a call to intensify current infection control efforts to help reduce the emergence of these multi-drug resistant organisms.

Grady Health System is a Level One trauma center located in Atlanta, Georgia. From September 2009 until July 2010 the use of imipenem-cilistatin (IMI-CIL) in the ICU at Grady Health System has increased by over 230%. It is possible the dramatic increase in multi-drug resistant *Acinetobacter baumannii* was due to the empiric use of IMI-CIL in the surgical ICU.

Methodology: The study will consist of a retrospective chart review of trauma patients admitted to the surgical ICU during a period from July 2009 to July 2010 receiving IMI-CIL at some point during their ICU stay. The primary outcome of the study is percent of gram negative bacteria isolated susceptible to IMI-CIL and not piperacillin-tazobactam. Secondary outcomes include: median ICU day to development of piperacillin-tazobactam resistant organism, percent infections due to gram negative bacteria resistant to IMI-CIL, ICU day to the development of IMI-CIL resistant organism, duration of each IMI-CIL course, duration of IMI-CIL exposure during ICU length of stay, and percent of time empiric antibiotics cover isolated infection.

Results:

Conclusions:

Presentation Objective: List potential consequences MDR bacteria in the ICU **Self-Assessment:** What impact does using empiric broad-spectrum antibiotics have on resistance patterns?

8:00

Room A

CCM

ABSTRACT REPRODUCTION FORM

EVALUATION OF A MODIFIED CEFEPIME DOSING REGIMEN IN ICU PATIENTS

Allison Palmer, Marcus Dortch, Judy Jenkins, Addison May
Vanderbilt University Medical Center - Nashville, TN

Purpose/Background: The pharmacodynamic goal of ²-lactam antibiotics is to maintain serum drug concentrations above the minimum inhibitory concentration of the pathogen (fT>MIC) for a fraction of time between doses. Recent studies have evaluated alternative ²-lactam dosing in an attempt to optimize fT>MIC of ²-lactam antibiotics in the clinical setting. Monte Carlo simulation suggests that an enhanced dosing regimen of cefepime 1g every 6 hours increases the probability of target fT>MIC. The purpose of this study is to compare outcomes of patients treated with cefepime before and after implementation of the enhanced dosing regimen.

Methodology: This retrospective study includes adult patients admitted to VUMC from 2005 to 2009 and treated with cefepime while in the SICU. In 2008, an enhanced cefepime dosing protocol was implemented. Prior to implementation, patients received cefepime at standard dosing. Baseline demographics and outcomes were compared between groups.

Results: A total of 243 patients were evaluated, 76 patients of whom had positive cultures. Age, gender and APACHE II scores were similar between groups. Preliminary results reveal that mortality was lower among patients who received cefepime during the period after protocol implementation compared to those before (13.3% vs. 25.2%, p=0.019). Further analyses of outcomes and cost implications are ongoing.

Conclusions:

Presentation Objective: Describe the impact of the implementation of an enhanced cefepime dosing regimen on patient outcomes. **Self-Assessment:** What is the rationale for dosing cefepime at 1g every 6 hours as opposed to the standard dose of 2g every 12 hours?

8:00

Room B

CCM

ABSTRACT REPRODUCTION FORM

IMPACT OF PROCALCITONIN LEVELS ON CLINICAL DECISIONS AND OUTCOMES AT BAYFRONT MEDICAL CENTER

Wendy H. Fisher, Timothy L. McCoy, Andra Metz, Jeff Bush
Bayfront Medical Center - St. Petersburg, FL

Purpose/Background: Procalcitonin is a useful marker in aiding early diagnosis of severe bacterial infections and monitoring response to therapy. The purpose of this study is to assess the impact of procalcitonin levels on clinical decisions and outcomes including antibiotic therapy (initiation or discontinuation), length of treatment, and/or length of hospital stay.

Methodology: Subjects are eligible for inclusion if he/she is greater than or equal to 18 years of age and had a procalcitonin level obtained within the time period of 01/19/2011 to 03/19/2011. The subject's chart will be reviewed retrospectively to collect data (age, sex, procalcitonin level, white blood cells, bands, temperature, cultures, diagnosis, antibiotics used, duration of antibiotic therapy, and length of hospital stay) to determine if procalcitonin level guided physicians decision on treatment, thus impacting outcomes.

Results:

Conclusions:

Presentation Objective: Recognize use of procalcitonin to tailor therapeutic interventions of systemic bacterial infections. **Self-Assessment:** Which of the following is/are not true regarding procalcitonin levels?

- Procalcitonin levels can impact the decision to initiate or discontinue antibiotic therapy.
- Procalcitonin levels are elevated in viral infections, autoimmune processes

8:00

Room C

ID

ABSTRACT REPRODUCTION FORM

DAPTOMYCIN IN METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) BACTEREMIA WITH DECREASED SUSCEPTIBILITY TO VANCOMYCIN

Delaney PD; Weinrib DA; Sautter RL; Norton JH; Williamson Je
Carolinas Medical Center - Charlotte, NC

Purpose/Background: Failure of vancomycin therapy in bacteremia due to MRSA with elevated (> 1 mcg/mL) vancomycin minimum inhibitory concentrations (MICs) has been described in the literature. However, limited data exist regarding the efficacy of alternative agents in this setting, and much debate regarding optimal management remains. The primary objective of this study is to assess clinical and microbiological outcomes associated with the use of daptomycin following initial vancomycin therapy in patients with bacteremia due to MRSA with elevated vancomycin MICs.

Methodology: All patients at least 18 years of age with at least 1 blood culture positive for MRSA with vancomycin MIC > 1 mcg/mL treated initially with vancomycin and transitioned to daptomycin will be included in the study. Patients treated with additional agents active against MRSA and those who demonstrated clearance of bacteremia prior to daptomycin initiation will be excluded from the primary analysis. Clinical failure will be defined by one of the following: addition of another agent active against MRSA, institution of alternative therapy, or death presumed attributable to MRSA. Microbiological failure will be defined on the basis of persistence of bacteremia. The emergence of daptomycin non-susceptible isolates of MRSA will also be noted. Data will be analyzed using descriptive statistics.

Results: Pending

Conclusions: Pending

Presentation Objective: Describe outcomes associated with daptomycin therapy following initial exposure to vancomycin in patients with bacteremia due to less susceptible strains of MRSA. **Self-Assessment:** Are outcomes of daptomycin therapy impacted by vancomycin susceptibility and previous exposure to vancomycin?

8:00

Room D

ID

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF A GUIDELINE-DRIVEN PROTOCOL FOR THE
MANAGEMENT OF CLOSTRIDIUM DIFFICILE INFECTIONS (CDI)
Tiffany Dickey, Michelle Turner
Moses H. Cone Health System - Greensboro, NC

Purpose/Background: Clostridium difficile is recognized as the primary pathogen responsible for antibiotic-associated colitis. In recent years the incidence and severity of CDI have increased. In March 2010 the Clinical Practice Guidelines were updated by the Society for Healthcare Epidemiology of America and the Infectious Diseases Society of America to incorporate new data on treatment and address the changing epidemiology. The purpose of this study is to evaluate if implementation of a pharmacy protocol will improve adherence to practice guidelines for the management of CDI.

Methodology: Eligible patients were at least 18 years old, admitted to a hospitalist service, and had a positive Clostridium difficile toxin assay during the current admission. Patients with an allergy to metronidazole or vancomycin were excluded. The study was conducted in three phases. Phase One consisted of a retrospective chart review of all qualifying patients over a period of two months. Phase Two involved educating the hospitalist group about the updated CDI Clinical Practice Guidelines and Phase Three was implementation of the guideline-driven protocol. Data collection included patient demographics, CDI therapy selection (drug/dose/duration of therapy), length of stay, CDI recurrence, 30-day readmission, antibiotic use in the prior 28 days, and all cause mortality. Data will be compared between the retrospective and prospective groups.

Results:

Conclusions:

Presentation Objective: Recognize the different classifications of Clostridium difficile (mild/moderate, severe, and severe/complicated) and list the recommended treatments for each. **Self-Assessment:** What are two factors that must be present for a CDI case to be classified as severe?

8:00

Room G

ID

ABSTRACT REPRODUCTION FORM

COMPARISON OF HIV THERAPY EXPENDITURES BEFORE AND AFTER
IMPLEMENTATION OF A DOT POLICY IN A CORRECTIONAL SETTING
Chrystal Holmes, Alexander Tunnell
Maxor Correctional Pharmacy Services - Franklin, TN

Purpose/Background: Directly observed therapy (DOT) is a method of drug administration in which patients are observed ingesting each dose of medication. The CDC endorses DOT as a tool to help ensure successful treatment of tuberculosis patients. However, when considering DOT and HIV, the outcomes have not been studied as extensively, specifically within the correctional setting. To our knowledge, differences in antiretroviral expenditures after DOT implementation have not been evaluated in HIV positive inmates. Thus our study aimed to determine if DOT implementation would impact per inmate per month (PIPM) expenditures on HIV therapy.

Methodology: This was a prospective cohort study involving 337 HIV positive inmates receiving antiretroviral therapy from a state department of corrections. Time periods for data collection were three months before and three months after implementation of DOT. The primary outcome was HIV PIPM expenditures, which was compared using a paired, two-tailed T-test.

Results: Following DOT implementation, the average of the PIPM expenditures decreased by \$116.45. This corresponded to a percent decrease of 5.7, with a 95% confidence interval of \$26.17 to \$206.73, (p=.0116).

Conclusions: Results of this study suggest that DOT therapy, in the correctional setting, may aid in decreasing overall expenditures on HIV antiretroviral therapy.

Presentation Objective: Describe the potential benefit of DOT in the correctional setting in relation to cost. **Self-Assessment:** Can DOT be considered in corrections as a method to decrease HIV expenditures?

8:00

Room H

MCP

ABSTRACT REPRODUCTION FORM

EVALUATION OF ANIDULAFUNGIN USAGE IN PEDIATRIC PATIENTS
Robyn Keen, Lisa Taylor, Robert Lawrence
Shands Teaching Hospital at UF - Gainesville, FL

Purpose/Background: Echinocandins represent a newer class of antifungal agents that have emerged onto the market over the past decade. Caspofungin was the first echinocandin approved by the FDA and is currently the only echinocandin FDA approved for use in children. Anidulafungin is the most recent echinocandin approved by the FDA and has a very similar antifungal spectrum and adverse effect profile to caspofungin in adults. Very limited clinical data exists surrounding the use of anidulafungin in pediatric patients. Pharmacokinetic data has been reported and supports its use, but clinical literature is limited leading to questions regarding its safety and efficacy in this population. The purpose of this study was to describe the safety and efficacy of anidulafungin in pediatric patients.

Methodology: Patients less than 22 years of age who received anidulafungin for any indication between January 2008 and October 2010 were included for evaluation. Patients were included in the safety analysis if they received one or more doses of anidulafungin and were included in the efficacy analysis if they received seven or more doses. Demographic information collected in the study included patient descriptors, fungal infection descriptors, and descriptions of previous and current treatments. Efficacy information included response to therapy, mortality, and success of therapy. Information collected regarding safety included documented adverse effects and infusion reactions.

Results:

Conclusions:

Presentation Objective: Describe the observed safety and efficacy of anidulafungin in a group of pediatric patients. **Self-Assessment:** What evidence is currently available to support the use of anidulafungin in pediatric patients?

8:00

Room I

PED

ABSTRACT REPRODUCTION FORM

EVALUATING BLOOD LOSS IN PATIENTS WITH PRIMARY TOTAL KNEE
ARTHROPLASTY WHO RECEIVED KETOROLAC, NSAIDS, AND NON-NSAIDS
Allison Lynch, Leela Kodali, John C. Larkin, And Stephanie Skinner
St. Thomas Hospital - Nashville, TN

Purpose/Background: Ketorolac tromethamine (Toradol®) is a non-steroidal anti-inflammatory drug (NSAID) with reversible, non-selective, COX/PG inhibition that is available for IM, IV, or PO administration. Due to the adverse effects of ketorolac, Saint Thomas Hospital limits its usage to 3 days. Ketorolac is an effective NSAID used by orthopedic surgeons. The clinical significance of blood loss associated with ketorolac at Saint Thomas Hospital is unknown. Ketorolac's relationship with post-operative changes in hematocrit as well as number of required transfusions is uncertain and prompts a more thorough investigation.

The purpose of this study is to evaluate blood loss in orthopedic patients receiving ketorolac, other NSAIDs, and non-NSAIDs after primary unilateral knee arthroplasty.

Methodology: A retrospective, electronic chart review of primary unilateral knee arthroplasty patients was conducted using computer generated reports from January 2010-September 2010. Exclusion criteria include patients who received knee revision surgery, long term anticoagulants prior to admission, or therapeutic doses of parenteral anticoagulants post-operatively. Patients were then divided into one of the following groups based on medications received post-operatively: Non-ketorolac NSAIDs Only, Ketorolac ± Other Analgesics, or Non-NSAID Analgesics Only. Parameters evaluated were changes in hematocrit and number of transfusions.

Results:

Conclusions:

Presentation Objective: To evaluate the relationship of blood loss with analgesics given after primary unilateral knee arthroplasty. **Self-Assessment:** What is the effect of analgesic selection on bleeding complications in post-operative unilateral knee arthroplasty patients?

8:00

Room J

IM

ABSTRACT REPRODUCTION FORM

A PHASE II QUALITY IMPROVEMENT PROJECT DEVELOPED TO ASSESS THE EFFICACY OF MEDICATION ERROR EDUCATION
Deanna Rose Tadena Mina, Simone Minto-Pennant
Orlando VA Medical Center - Orlando, FL

Purpose/Background: According to the Institute of Safe Medication Practices education is a key element in preventing medication errors. A prior phase I project was conducted to evaluate the effects of education in medication error reporting. The project illustrated that there was a correlation between education and an increase in reported medication errors. The purpose of this phase II project is to further increase awareness about medication error trends in the Orlando VA Medical Center - Community Living Facility. An emphasis was placed on the category of errors, their prevalence and potential solutions.

Methodology: A performance improvement project was developed to assess the efficacy of continued medication error education. A survey was conducted including all Community Living Facility staff evaluating error reporting practices in the facility. Subsequently, education was provided to all the staff. The number of medication errors reported post education was compared to the pre-intervention numbers and stratified based on type of errors.

Results:

Conclusions:

Presentation Objective: List educational points that will contribute to the prevention of medication errors and continued medication error reporting. **Self-Assessment:** What is one area the pharmacist can help promote medication safety?

8:00

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

A PILOT STUDY TO EVALUATE THE USE OF NEPICASTAT FOR PTSD
Traci Dutton, Lori Davis, Jennifer Biladeau, Allison Kluz
Tuscaloosa VA Medical Center - Tuscaloosa, AL

Purpose/Background: Current events have lead to an increase in posttraumatic stress disorder (PTSD). PTSD is a chronic and costly illness that is associated with significant dysfunction, premature death, increased risk of suicide, increased substance abuse/dependence, and long-term disability, especially if left untreated. Unfortunately, current treatments for PTSD are not very effective and thus, novel treatments for PTSD are needed.

This study proposes a trial of the dopamine-β-hydroxylase (DBH) inhibitor, nopicastat, for the treatment of PTSD in outpatients who have previously served in a combat zone. The objective is to assess the global efficacy of nopicastat in the treatment of hyperarousal in PTSD in conflict or combat zone experienced veterans, in comparison to placebo. A medical safety objective is to assess the tolerability and side effects of nopicastat.

Methodology: This study is a 6-week, pilot study utilizing a randomized, double-blind, placebo-controlled trial design to compare dopamine-β-hydroxylase (DBH) inhibitor, nopicastat, for the treatment of PTSD in outpatient veterans. This study will use the Clinician-Administered PTSD Scale (CAPS) total and subscales to assess PTSD in the study population. Tuscaloosa VA Medical Center will evaluate veterans with PTSD who will be randomized to one of two groups: nopicastat or placebo. This study is the lead in a larger study of nopicastat.

Results:

Conclusions:

Presentation Objective: Explain the use of nopicastat in the treatment of posttraumatic stress disorder (PTSD), including mechanism of action and feasibility data. **Self-Assessment:** What is the mechanism of action of nopicastat?

8:00

OLY 2

PSY

ABSTRACT REPRODUCTION FORM

OPERATION DONATE: DEFINING THE VALUE OF REDISPENSING MEDICATIONS
DONATED BY INDIVIDUALS
Megan Glanville, Rebecca Brady, Susan Miller
Cape Fear Valley/Southern Regional AHEC - Fayetteville, NC

Purpose/Background: In 2010, the North Carolina Board of Pharmacy published a rule allowing individuals to donate unused prescription medications to pharmacies and free clinics to redispense to eligible patients. Although many states have similar rules in place, the feasibility and utility of such a practice is largely unknown. Operation Donate is a pilot program designed to assess the value of accepting donations to supplement medication stock in a nonprofit pharmacy.

Methodology: The Cumberland County Medication Access Program (CCMAP) pharmacy was utilized for donation acceptance and redispensing. Following a public awareness campaign, donations were accepted each Friday for 15 weeks at CCMAP and during a one-day, city-wide, multi-site medication disposal and donation event. Medications eligible for donation were contained in unopened, tamper-evident, original manufacturer's packaging or unit-dose packaging. The primary outcome was value of the collected medications defined by average wholesale price. Other outcomes measured were percentage of medications redispensed and their value, associated personnel costs, and cost for disposal of unusable medications.

Results: To date 44 usable donations have been collected, representing a value of \$9,350. Two donations (4.5%) have been redispensed with a value of \$513. Pharmacy personnel have dedicated three hours to the program at an estimated cost of \$80. Donation acceptance will continue through March 2011.

Conclusions:

Presentation Objective: Define the value of medication donation by individuals for redispensing in the setting of a non-profit pharmacy. **Self-Assessment:** True or False-Collecting medication donations from individuals is cost effective.

8:00

PARTH 1

ADM

ABSTRACT REPRODUCTION FORM

EXPLORING THE ROLE OF THE CLINICAL PHARMACIST IN THE HEMODIALYSIS
CLINIC
Abigail L. Smallwood, Valerie S. Steele
Bay Pines VA Medical Center - Bay Pines, FL

Purpose/Background: Patients with severe chronic kidney disease (CKD) are more likely to be faced with complex medication regimens targeting multiple comorbidities and will be prescribed, on average, ten to twelve medications. With complex regimens and necessary regular laboratory monitoring, these patients face a number of potential medication errors and drug-related problems.

The purpose is to document the impact of a pharmacist on therapeutic drug monitoring and preventable medication errors in an outpatient hemodialysis clinic. Adding pharmaceutical services into the patient care team may help optimize pharmacotherapy, reduce drug costs, and avert drug-related problems.

Methodology: A retrospective chart review of patients undergoing scheduled hemodialysis over six months at an outpatient hemodialysis center in the Bay Pines VAHCS will be performed in CPRS. This review will identify or evaluate new adverse drug reactions reported, drugs without indication and indications without drugs, medication doses were adjusted to renal function, the appropriateness of phosphate binder initiation for hyperphosphatemia secondary to renal osteodystrophy, dosages of erythropoietin stimulating agents (ESAs) were adjusted or held in accordance to standard of care for anemia, and that ESAs were accompanied by adequate concomitant iron supplementation. A cost analysis of select possible interventions will be completed.

Results:

Conclusions:

Presentation Objective: List interventions that can be made by a pharmacist in the hemodialysis clinic. **Self-Assessment:** Which of the following are possible areas for pharmacist intervention?

- Renal dose adjustments
- Therapeutic drug monitoring
- Adherence assessment and counseling
- Streamlining pharmacotherapy
- All of the above are opportunities for pharmacist int

8:00

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

ADVERSE EVENTS OF SODIUM NITROPRUSSIDE AND COMPARISON WITH INTRAVENOUS NICARDIPINE IN A LARGE ACADEMIC HOSPITAL

Shauna Jacobson; Marina Rabinovich; John Patka; Eric Honig
Grady Health System - Atlanta, GA

Purpose/Background: Studies have shown that 1-2% of patients with hypertension (HTN) will experience a hypertensive crisis. Sodium nitroprusside (SNP) is effective in treating emergent HTN, but its use has been limited due to concern of potential cyanide toxicity. Intravenous nicardipine (IV NC) is often recommended instead of SNP, especially in special populations, despite a lack of randomized control trials comparing the agents and their adverse events.

Methodology: This study is a retrospective chart review from January 2008 through December 2009 of patients admitted to the ICU of a large academic hospital who received SNP or IV NC for HTN. The primary outcome measure is the percentage of patients treated with SNP who developed, during or within 24 hours of the infusion, signs of unexplained metabolic acidosis. Secondary outcomes include average ICU and hospital lengths of stay (LOS), percentage of patients exhibiting adverse events such as significant hypotension, average duration of significant hypotension while on the agents, percentage of patients suffering an acute onset stroke, MI, kidney failure, or death through hospital LOS, average doses and durations of infusion, and percentage of orders written incorrectly.

Results: Pending IRB approval

Conclusions: Pending

Presentation Objective: Evaluate incidence of SNP toxicity in patients treated with SNP and compare the adverse event profiles of SNP and IV NC. **Self-Assessment:** What is the incidence of cyanide toxicity in patients treated with SNP, and how does its adverse event profile compare to that of IV NC?

8:20

Room A

CCM

ABSTRACT REPRODUCTION FORM

THE EFFECT OF ETOMIDATE INDUCTION ON ADRENAL FUNCTION IN CARDIAC SURGERY PATIENTS

Christi Parker
Vanderbilt University Medical Center - Nashville, TN

Purpose/Background: Etomidate is a first-line anesthetic agent for facilitation of endotracheal intubation due to its minimal side effect profile, hemodynamic tolerance, limited suppression of mechanical ventilation, lack of histamine release and protection from myocardial and cerebral ischemia. Relative adrenal insufficiency has been frequently demonstrated in critical care and emergency medicine literature after use of etomidate for rapid sequence intubation. Vanderbilt University Medical Center halted the use of etomidate for induction in cardiac surgery patients in 2008. The phenomenon of etomidate causing transient adrenal dysfunction has not been well documented in cardiac surgery patients. The purpose of this study is to retrospectively evaluate adrenal insufficiency in cardiac surgery patients who underwent cardiovascular procedures before and after the discontinuation of etomidate induction.

Methodology: This study will examine the incidence of adrenal insufficiency in cardiac surgery patients with or without etomidate induction. It will also evaluate several secondary outcomes including vasopressor use, hospital length of stay, ICU length of stay, ventilator days, and mortality.

Results: Cardiac surgery patients were separated into two groups: etomidate versus other induction agents. Preliminary data demonstrated a higher incidence of adrenal insufficiency in the etomidate group versus the other induction agent group (55% vs 27%, respectively).

Conclusions:

Presentation Objective: To understand the risk and incidence of adrenal insufficiency with the use of etomidate for induction in a specific population, cardiac surgery patients. **Self-Assessment:** Will the discontinuation of etomidate induction in cardiac surgery patients decrease the incidence of adrenal insufficiency and adverse outcomes?

8:20

Room B

CCM

ABSTRACT REPRODUCTION FORM

EVALUATION OF EMPIRIC PNEUMONIA TREATMENT IN THE EMERGENCY ROOM AND ITS INFLUENCE ON SUBSEQUENT ANTIBIOTIC PRESCRIBING

Rochelle Carlton, Philippe Mentler, John Boreyko
Durham Regional Hospital - Durham, NC

Purpose/Background: Inappropriate empiric antibiotic selection in the hospital setting is associated with many negative outcomes. Selection of ineffective antibiotic regimens increases patient morbidity, mortality, and length of stay. Overuse of broad-spectrum antibiotics contributes to the emergence of drug resistant organisms, increases cost, and risk of adverse drug events. The objective of this study is to assess the appropriateness of antibiotic regimens initiated in the emergency room for empiric treatment of pneumonia and determine the extent to which emergency room prescribing influences subsequent therapy.

Methodology: This retrospective study included patients admitted to Durham Regional Hospital with a presenting diagnosis of pneumonia between October 2009 to April 2010. Patients were excluded if they were younger than 18 years of age, prisoners, or if they did not receive antibiotics in the emergency room and during the 24 hours following admission. Pneumonia was classified as Community Acquired or Health Care Associated based upon patient risk factors extracted from medical records. Two independent reviewers assessed each antibiotic regimen for consistency with published guidelines. Primary outcomes assessed included proportion of inappropriate antibiotic regimens initiated in the emergency room and proportion of inappropriate antibiotic regimens continued following admission. Outcomes were analyzed using descriptive statistics and Chi-square test.

Results:

Conclusions:

Presentation Objective: Identify factors contributing to inappropriate antibiotic selection for empiric treatment of pneumonia and describe the link between emergency room and inpatient prescribing patterns. **Self-Assessment:** Identify two factors that contribute to selection of inappropriate antibiotic regimens for empiric treatment of pneumonia in the emergency room.

8:20

Room C

ID

ABSTRACT REPRODUCTION FORM

RISK FACTORS ASSOCIATED WITH FUNGAL INFECTIONS IN PATIENTS WITH HEMATOLOGICAL MALIGNANCY AND MDS

Rachel Younger; Kara Fortune, Shauna Graham
Centennial Medical Center - Nashville, TN

Purpose/Background: The purpose of this study is to identify the risk factors of breakthrough fungal infections in patients with hematological malignancy and myelodysplastic syndrome at Centennial Medical Center. Infectious diseases are important causes of morbidity and mortality in patients with cancer. Neutropenia has been recognized as a major risk factor for the development of infections in cancer patients undergoing chemotherapy. Other host factors predisposing patients to cancer-related infections include: disruption of mucosal barriers, use of immunosuppressive agents, and presence of advanced or refractory malignancy.

Methodology: This is a retrospective, case-control, descriptive study designed to evaluate breakthrough fungal infections in hematologic malignancy and MDS at Centennial Medical Center, a large non-academic tertiary care medical facility. Patients are included if they are age 18 years or older, were admitted to CMC during the time period from January 1, 2005 to October 31, 2010 and were diagnosed with a hematologic malignancy or MDS. Pregnant patients are excluded. Cases, patients with documented positive fungal culture, are matched with patients without documented infection by similar age, gender, and malignant disease.

Results:

Conclusions:

Presentation Objective: Identify risk factors associated with breakthrough fungal infections in hematologic malignancy and MDS patients. **Self-Assessment:** What is one host factor that predisposes patients to cancer-related infections?

8:20

Room D

ID

ABSTRACT REPRODUCTION FORM

CLINICAL PHARMACIST REVIEW OF INPATIENT ANTIRETROVIRAL THERAPY ORDERS

Stacy Kautza, Michelle Turner
Moses H. Cone Health System - Greensboro, NC

Purpose/Background: Effective antiretroviral therapy (ARV) requires frequent monitoring, patient adherence, and minimal interruptions in therapy. Inpatient admission poses unique challenges to appropriate use of ARV. Published literature reports error rates ranging from 21-84% in patients receiving ARV who are admitted to a hospital. This project is designed to determine the error rate of ARV therapy at The Moses H. Cone Memorial Hospital and characterize the impact of clinical pharmacist review.

Methodology: Eligible participants were inpatients ³18 years old with at least one ARV medication ordered and a diagnosis of HIV. A clinical pharmacist completed a prospective chart review of ARV therapy within 72 hours of admission. Errors were identified and recommendations made to the provider. After the initial chart review patients were followed until their discharge. The total pharmacist time spent daily on each patient was recorded. Errors were categorized by: inadequate or incomplete regimen, incorrect dosage or frequency, drug interaction, duplication of therapy, failure to initiate a medication reconciliation consult, and home medication reconciliation error.

Results:

Conclusions:

Presentation Objective: List types of errors that are most common in patients on ARV therapy. **Self-Assessment:** How can clinical pharmacist review benefit patients on ARV therapy?

8:20

Room G

ID

ABSTRACT REPRODUCTION FORM

EFFECTS OF FENOFIBRATE 160MG VS. 54MG CONVERSION ON TRIGLYCERIDE LEVELS IN PATIENTS ON STATIN THERAPY

Kendra Manigault, Vanessa Smith, Melissa Butler
Kaiser Permanente - Atlanta, GA

Purpose/Background: Fenofibrate is commonly initiated at 160mg per day in patients receiving statin therapy despite recommendations to start doses between 54mg to 160mg per day for treatment of hypertriglyceridemia. No published studies have directly compared the benefit of fenofibrate 54mg versus 160mg. The primary objective of this study is to measure the impact of converting patients on statin therapy from fenofibrate 160mg to 54mg per day on triglyceride levels.

Methodology: Subjects must be 18 years of age or older and have a lipid panel within the past 9 months with most recent triglyceride levels less than 200mg/dL to be included in this study. Subjects with a history of pancreatitis, previous fenofibrate 54mg use, severe renal dysfunction, or pregnancy are excluded. Subjects are randomized to the intervention arm (54mg) or control arm (160mg). Subjects have fasting lipid panel, ALT/AST, and SCr labs evaluated at baseline and 8 weeks after enrollment. A student t-test will be used to determine if change in triglycerides between study arms is significantly different.

Results: There are 32 subjects currently enrolled, 69% are male and the mean age is 58.56 (± 6.73) years. At baseline, mean lipids are as follows: triglycerides 131.47mg/dL (± 56.14), LDL 90.00mg/dL (± 22.92), and HDL 41.63mg/dL (± 11.36).

Conclusions:

Presentation Objective: Discuss the need for appropriate titration of fenofibrate therapy in patients taking concomitant statin therapy. **Self-Assessment:** True or False: There is a significant difference in the ability of fenofibrate 54mg to maintain goal levels compared to fenofibrate 160mg.

8:20

Room H

MCP

ABSTRACT REPRODUCTION FORM

SURVEILLANCE OF ANTIMICROBIAL USE AND RESISTANCE PATTERNS IN A PEDIATRIC INTENSIVE CARE UNIT AT A TEACHING HOSPITAL

Danielle Lazear, Brian Kelly
Shands Teaching Hospital At UF - Gainesville, FL

Purpose/Background: In 1997 the Infectious Disease Society of America and the Society for Health Care Epidemiology of America Joint Committee on Antibiotic Resistance in Hospitals made recommendations regarding improving surveillance of microbiologic data in an effort to minimize antibiotic resistance. Shands Children's Hospital has a 24-bed Pediatric Intensive Care Unit (PICU), and to date no in depth evaluation regarding antimicrobial use or resistance patterns has ever been performed specifically for this unit. All of the data is available; however it has never been compiled and analyzed over any time period. Building a database with this information will help identify potential antimicrobial usage and resistance problems that have developed in the unit over time. This information can then be compared to published data from the Pediatric Prevention Network, Center for Disease Control and Prevention, and other PICUs across the world.

Methodology: Data from January 1, 2005 to July 31, 2010 in the PICU was requested from various departments. A summary report of all microbiology culture results was obtained in addition to billing information for antimicrobials based on drugs classified according to the American Hospital Formulary Service [AHFS] category 08 : (e.g. antibiotics, antivirals, antifungals). Information related to demographics and hospital admission (e.g. length of stay, ICU days, and diagnoses) was also collected. Compiled data was then summarized with descriptive statistics and evaluated for trends in susceptibilities.

Results:

Conclusions:

Presentation Objective: Describe the goals of antimicrobial stewardship. **Self-Assessment:** What is one of the core strategies of an antimicrobial stewardship program?

8:20

Room I

PED

ABSTRACT REPRODUCTION FORM

MANAGEMENT OF HYPERGLYCEMIA IN PATIENTS RECEIVING INTRAVENOUS CORTICOSTEROIDS

Jessica Patton, Tonya Thomas, And Jeannie Watson
St. Thomas Hospital - Nashville, TN

Purpose/Background: Hyperglycemia is a common occurrence in hospitalized patients. Elevated blood glucose has been associated with increased morbidity and mortality in several patient populations, including those that are in intensive care units. While corticosteroids are widely known to cause hyperglycemia, to date, no large-scale randomized controlled trials have evaluated a protocol for treatment of patients receiving these medications. A variety of insulin regimens are used to manage hyperglycemia in patients receiving intravenous corticosteroids at Saint Thomas Hospital. The purpose of this review is to determine the most effective insulin regimen to manage elevated blood glucose in patients receiving intravenous hydrocortisone, methylprednisolone, or dexamethasone.

Methodology: Retrospective dosing analysis of patients receiving >10 mg of prednisone equivalent (IV route only) each day between April 1, 2010 and October 31, 2010. To be eligible for inclusion in this review, patients must be on a critical care unit, and have at least one blood glucose measurement of ≥ 140 mg/dL. Patients must also have their blood glucose checked at least twice daily, and must be receiving insulin. Patients were excluded if they received steroids prior to admission, parenteral nutrition, oral antidiabetic agents, renal replacement therapy, or had nil per os (NPO) orders. Exclusion criteria also included patients with known adrenal insufficiency, pancreatitis, or diabetic ketoacidosis.

Results:

Conclusions:

Presentation Objective: To compare efficacy of insulin regimens used to treat corticosteroid-induced hyperglycemia. **Self-Assessment:** What is the most effective insulin regimen to control corticosteroid-induced hyperglycemia?

8:20

Room J

IM

ABSTRACT REPRODUCTION FORM

IMPACT OF PHARMACIST INVOLVEMENT IN ERYTHROPOIESIS STIMULATING AGENT THERAPY

Elizabeth Poirier, Megan Freeman And Sarah Murphy
Northside Hospital - Atlanta, GA

Purpose/Background: Erythropoiesis stimulating agents (ESAs) treat anemia due to chronic kidney disease and chemotherapy but have been associated with death, cardiovascular events, thromboembolic events and tumor progression/recurrence in cancer patients. Consequently, the FDA implemented programs to mitigate these risks. Additionally, clinical guidelines recommend specific target hemoglobin (Hgb) levels, dosage adjustments and iron supplementation. This study will determine the impact of pharmacist involvement in ESA therapy and evaluate compliance with FDA programs.

Methodology: The study consisted of two phases. In phase one, medical records were reviewed for patients who received an ESA between 7/2009 and 12/2009. Phase two involved daily pharmacist assessment of ESA orders with appropriate follow-up recommendations to prescribers and implementation of FDA requirements. ESA orders from 3/2011-4/2011 were assessed. Clinical endpoints included Hgb levels, dose, iron supplementation, lab monitoring and documentation of FDA requirements to ensure appropriate use of ESAs in accordance with product package inserts and clinical guidelines.

Results: Phase one included sixty patients: 78% received Procrit® and 22% received Epogen®. Indications were 45% renal, 13% oncology, and 41% other. 33% had a Hgb e10 when therapy began. The most frequent dosing regimens were weekly (37%), once (30%) and three times weekly (20%). Mean days of ESA therapy was 6 days. 36% of patients had baseline iron studies. 41% of patients received iron supplementation.

Conclusions: Preliminary data shows need for pharmacist involvement in ESA therapy.

Presentation Objective: Describe appropriate use of ESAs and ways the pharmacist can ensure this. **Self-Assessment:** What are the risks associated with ESAs?

8:20

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

A PLACEBO-CONTROLLED STUDY OF MIRTAZAPINE FOR PTSD IN OIF/OEF VETERANS AND VETERANS FROM ALL OTHER SOUTHWEST ASIA CONDITIONS

Katherine Muhlstadt, Lori Davis, Beverly Whitfield, Ann Mahaney-Price
Tuscaloosa Va Medical Center - Tuscaloosa, AL

Purpose/Background: Posttraumatic Stress Disorder (PTSD) is a common mental illness which affects millions of North Americans. Currently only two medications are FDA indicated for PTSD treatment (sertraline, paroxetine). Preliminary data from open-label studies and small placebo-controlled studies of mirtazapine suggests that it is an effective treatment in PTSD. The purpose of this study is to evaluate the efficacy and tolerability of mirtazapine in the treatment of PTSD in veterans of Operation Iraqi Freedom and Operation Enduring Freedom (OIF/OEF) veterans and veterans from all other Southwest Asia Conditions.

Methodology: This study is an 8-week multicenter, randomized, double-blind, placebo-controlled treatment followed by an 8-week open label treatment of mirtazapine for PTSD. Efficacy is measured by utilizing MADRS, CGI-S, CGI-I, CAPS, SIP, and DTS scales. Patients symptoms, side effects and compliance are assessed bi-weekly. Compliance is assessed by biweekly pill count. Based on symptoms and occurrence of side effects, the investigator may increase mirtazapine in 15 mg increments, as tolerated, until a maximum therapeutic benefit is achieved, but not to exceed 45 mg/day. Patients are also provided supportive clinical management during the clinic visits.

Results:

Conclusions:

Presentation Objective: Identify medications currently indicated for use in patients with PTSD. **Self-Assessment:** What medications are currently FDA-approved for the treatment of PTSD?

8:20

OLY 2

PSY

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION AND EVALUATION OF A PHARMACIST-LED NURSING EDUCATION PROGRAM AT A LARGE URBAN COMMUNITY HOSPITAL

Chilla Goncz, Amy Giovino, Anit Legare, Maribeth Desiongo.
Sarasota Memorial Hospital - Sarasota, FL

Purpose/Background: Many hospitals have enacted restrictive policies in regards to the amount of pharmaceutical education conducted on-site by industry representatives. These restrictions may be a source of dissatisfaction among nursing staff who historically relied on industry for educational programs. Pharmacy led nursing education should minimize biased information and increase compliance with hospital protocols. Additionally, this collaborative effort may help strengthen pharmacy-nursing relationships and provide an educational opportunity for pharmacy students and residents. The purpose of this study is to describe the implementation and evaluation of a pharmacist-led nursing education program at a large community hospital.

Methodology: A pre-program educational needs assessment survey was validated and then electronically distributed to nurses hospital-wide to assess their preferred source of drug information, satisfaction with educational programs currently offered by the institution, and their educational needs. An interdisciplinary committee, comprised of representatives from pharmacy and nursing departments, met to review results and prioritize nursing educational needs. The educational lectures were presented monthly by students or pharmacists and offered nurses complimentary continuing education credits. After five months, a follow-up survey was distributed to the nursing staff evaluate the effectiveness of the program. Descriptive statistics were used to analyze the data collected in the surveys.

Results:

Conclusions:

Presentation Objective: Describe a strategy to implement and evaluate the impact of a pharmacist-led nursing education program at a hospital. **Self-Assessment:** What benefits can a continuing education nursing education program offer the pharmacy department?

8:20

PARTH 1

ADM

ABSTRACT REPRODUCTION FORM

EVALUATION OF A PHARMACIST MANAGED HYPERTENSION CLINIC WITH NURSING STAFF IN A COMMUNITY BASED OUTPATIENT CLINIC

Brian Roland, Marjorie Showalter, Steven Totterdale
Bay Pines VA Medical Center - Bay Pines, FL

Purpose/Background: The Sarasota CBOC is home to 10 primary physicians and serves over 10,000 veterans. The purpose of this quality assurance review is to evaluate the implementation of a pharmacist and nurse managed hypertension clinic in a Veteran s Affairs (VA) Community Based Outpatient Clinic (CBOC).

Methodology: Between 09/1/2010 and 12/31/2010, physicians were provided the opportunity to consult pharmacy to manage patients with uncontrolled hypertension. Upon consultation, the patients underwent an initial 30-minute visit with the pharmacist during which lifestyle modifications and education were provided along with medication changes. At each subsequent visit, the patient saw nursing for a 15-minute appointment that was immediately followed by a 15-minute visit with pharmacy. Medication adjustments were made during the visit with pharmacy. Physicians were notified of any potentially serious adverse events or upon discharge from the clinic. Patients were discharged upon two readings below goal or if patient refused further follow up.

Results: 81 patients were consulted to the pharmacist managed hypertension clinic. There are currently 30 active patients remaining in this pilot clinic. Of the 51 patients that have been discharged from clinic, 31 were discharged at goal.

Conclusions:

Presentation Objective: Outline the effectiveness of a pharmacist managed hypertension clinic in conjunction with nursing staff. **Self-Assessment:** Which of the following improvements to the hypertension clinic were identified?

8:20

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

IMPACT OF A TAKE HOME MEDICATION SUPPLY ON READMISSION RATES IN THE EMERGENCY DEPARTMENT AT AN URBAN TEACHING INSTITUTION
Kara B. Goddard, John Patka, Karen Curzio, Rondell Jagers, Leon Haley
Grady Health System - Atlanta, GA

Purpose/Background: Patients can present to the emergency department (ED) for emergent complaints due to medication related problems or use the ED as their means of a primary care provider. Grady Health System (GHS) serves primarily an indigent population, with many patients lacking access to consistent medical care. GHS does not have outpatient pharmacy services 24 hours a day; therefore, the ED pharmacy provides a Take Home Medication service for many medications. This allows patients to receive up to a 72-hour supply of medications, thus allowing more time for prescription acquisition from the GHS outpatient pharmacy during operating hours. The purpose of this project is to assess the impact of the "Take Home Medication" supply on readmission rates to the hospital or ED.

Methodology: This is a retrospective analysis of patients who received up to a 72-hour supply of medications from the GHS ED. The primary objective is to determine the impact of the Take Home Medication service on hospital or ED readmission rates. Secondary objectives include: to determine the financial value of these services due to cost avoidance of a readmission; to determine the impact on patient care; to determine the percentage of prescriptions filled at GHS within 72 hours of discharge.

Results:

Conclusions:

Presentation Objective: Assess the impact of the Take Home Medication service provided by the ED pharmacy staff on emergency department and hospital readmission rates. **Self-Assessment:** Does the Take Home Medication service prevent early readmission to the emergency department or hospital at GHS?

8:40

Room A

CCM

ABSTRACT REPRODUCTION FORM

MANAGING SEVERE ASYMPTOMATIC HYPERTENSION IN THE EMERGENCY DEPARTMENT
Jennifer Markle, Alison Grimsley, Jon Bednar, Jackie Roh
Moses H. Cone Health System - Greensboro, NC

Purpose/Background: Severely elevated blood pressure without signs of end organ damage does not require immediate antihypertensive treatment. According to the American College of Emergency Physicians (ACEP), intravenous (IV) and rapid acting oral agents should be reserved for hypertensive emergencies. Recently, the Moses Cone Health System has experienced an influx of new and mid-level practitioners in the emergency department (ED). Patients with asymptomatic hypertension present a challenge for these practitioners, as it can be difficult to withhold treatment for an alarmingly elevated blood pressure. Therefore, the purpose of this study is to decrease the inappropriate use of antihypertensive agents in asymptomatic hypertensive patients.

Methodology: The primary outcome is to demonstrate a decrease in the use of oral clonidine and IV labetalol in asymptomatic hypertensive patients. A retrospective chart review identified patients at least 18 years old who presented to the ED between July 2010 and September 2010 and who received either one dose of oral clonidine or IV labetalol. Data collection included primary diagnosis, end organ damage, and if oral clonidine was part of the patient's home medication regimen. This data was presented to the ED staff, along with a brief review of the ACEP guidelines. Following this education, the same data will be collected for one month. Descriptive statistics will compare retrospective and prospective data.

Results:

Conclusions:

Presentation Objective: Compare antihypertensive use before and after educating ED practitioners on the ACEP guidelines for asymptomatic hypertension. **Self-Assessment:** How does guideline enforcement change the management of asymptomatic hypertension in the ED?

8:40

Room B

CCM

ABSTRACT REPRODUCTION FORM

VANCOMYCIN TROUGH CONCENTRATIONS AND THE INCIDENCE OF THROMBOCYTOPENIA
Joshua A. Arrington, Diana Y. Chen, J.P. Ginsberg, S. Scott Sutton
WJB Dorn VA Medical Center - Columbia, SC

Purpose/Background: Current American Society of Health-System Pharmacists/Infectious Disease Society of America (ASHP/ISDA) guidelines encourage targeting vancomycin trough serum levels of at least 15mg/L, despite lack of validation in clinical trials. There are documented cases of vancomycin-induced thrombocytopenia, but were published prior to the recommendation for sustained vancomycin serum concentration levels of 15-20 mg/L. Therefore, the aim of this study was to evaluate the platelet effects in patients with vancomycin trough concentrations \geq 15 mg/L compared to vancomycin trough concentrations $<$ 15 mg/L.

Methodology: Patients were screened retrospectively for study inclusion if they had received at least one dose of vancomycin from January 1, 2000 to December 31, 2009. The primary endpoint was the rate of vancomycin-induced thrombocytopenia, defined as a 15% drop in platelets, in patients receiving vancomycin with trough concentrations \geq 15 mg/L in comparison to patients with trough concentrations $<$ 15 mg/L. Differences in thrombocytopenia rates were analyzed utilizing a Chi-Square Test.

Results: Seventy-nine patients were evaluated and included in the analysis. Of the 79 patients, 22.8% of the patients in both groups had a drop in platelets $>$ 15% ($p=0.623$).

Conclusions: This study suggests there is no difference in platelet effects in patients treated with trough concentrations \geq 15 mg/L in comparison to patients with trough concentrations $<$ 15 mg/L.

Presentation Objective: Determine if there are platelet effects on varying vancomycin trough concentrations. **Self-Assessment:** Are higher vancomycin trough concentrations associated with thrombocytopenia?

8:40

Room C

ID

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF A PHARMACIST-OPERATED VACCINATION SCREENING PILOT FOR PNEUMOCOCCAL AND INFLUENZA VACCINATIONS
Christi Ann Albert, Jennifer Gommer, Sabina Demarchi, And Paul Pleczkowski
Duke University Hospital - PGY1 - Durham, NC

Purpose/Background: Pneumococcal and influenza vaccination have been proven to be effective at preventing disease in high risk patients and are associated with very few side effects and risks. Despite healthcare providers' acceptance of the utility of vaccination, a significant portion of Americans remain unvaccinated. In 2006, the Center for Disease Control (CDC) estimated that 39% of adults over 64 years old were unvaccinated for pneumonia and influenza, which resulted in hospitalization of the 1.2 million Americans with a diagnosis of community acquired pneumonia. Pneumonia and influenza are cost-effective vaccine-preventable diseases that could save thousands of hospitalization-related dollars and lives every year with an effective vaccination program. The purpose of this study is to investigate the effect a pharmacist-managed vaccination screening program will have on immunization rates of general medicine patients at a tertiary care hospital.

Methodology: This is a single center, non-blinded, open-label, quality improvement pilot and a post-pilot retrospective chart review will be conducted. The primary objective is to improve pneumococcal vaccination rates of patients admitted to general medicine wards to \geq 30% with the implementation of the quality improvement pilot.

Results:

Conclusions:

Presentation Objective: Describe the impact of the pharmacist-operated vaccination screening program on proportion of patients vaccinated for pneumonia and influenza, in addition to nurses' and pharmacists' compliance with the vaccination screening upon admission. **Self-Assessment:** On average in this study, how many indications for pneumococcal vaccination did this general medicine population have? What proportion of patients did not have any indications for pneumococcal vaccination?

8:40

Room D

ID

ABSTRACT REPRODUCTION FORM

DIFFERENCES IN CLINICAL OUTCOMES IN HEMODIALYSIS PATIENTS RECEIVING A SUPPLEMENTAL DOSE OF PIPERACILLIN-TAZOBACTAM POST-DIALY

Tatyana Duverglas, Simon Leung, Carla Hawkins Locke, Margaretta Kearson
Memorial Regional Hospital - Hollywood, FL

Purpose/Background: Piperacillin-tazobactam (PTZ) is a 2-lactam-2-lactamase inhibitor combination antibiotic with broad spectrum coverage against gram positive and gram negative bacteria, including Pseudomonas aeruginosa. Current renal dosing guidelines recommend PTZ 2.25 grams intravenously every 8 to 12 hours and a supplemental dose of 0.75 grams drug following each dialysis session. In clinical practice, a discrepancy regarding the use of the supplemental post-dialysis dose exists. Thus, the purpose of this study is to compare the clinical response in hemodialysis patients who received the PTZ regimen with supplemental dosing to those who did not.

Methodology: Retrospectively, electronic medical records and pharmacy automated databases were utilized to identify hospitalized patients who had undergone hemodialysis and received PTZ 2.25 grams intravenously every 8 to 12 hours over a 12-month period. Clinical response, prescribing habits and pharmacy interventions were assessed.

Results:

Conclusions:

Presentation Objective: Reinforce current renal dosing guideline recommendations. This would reduce antibiotic resistance, decrease healthcare costs and facilitate antibiotic delivery.
Self-Assessment: Considering dialysate flow rate, hemofiltrate flow rate, and dialysis removal of PTZ, does antimicrobial activity of PTZ appear to be lost?

8:40

Room G

ID

ABSTRACT REPRODUCTION FORM

PROMPTING A THERAPY SWITCH IN MULTIPLE SCLEROSIS (MS) PATIENTS FROM A SPECIALTY PHARMACY SERVICE

Reina Natero David Mostellar, Jeff Lannigan And Angel Wolf
Wellcare Health Plans - Tampa, FL

Purpose/Background: Despite the availability of immunomodulatory therapies (IMTs), a subset of MS patients fail to adequately respond to treatment. In non-responders, switching or adjusting their dose of IMT constitutes an appropriate therapeutic strategy. After identifying non-responsive MS patients through a pharmacist-administered telephone survey, we investigated the rate of change from one IMT to another following provider notification.

Methodology: A total of 175 patients 18 years and older, with six months of consecutive pharmacy claims for only one IMT were randomized into either an intervention or a control group. The Multiple Sclerosis Impact Scale-29 (MSIS-29) was administered telephonically to patients in the intervention group. Prescribers were contacted via fax communication when patients received a score of 60 or above in any component of the MSIS-29.

Results: Preliminary: Forty-nine patients in the intervention group completed the MSIS-29, 33 were unable to be reached by phone, and 5 were unable to participate. Of the patients that completed the MSIS-29, 20 patients received a score greater or equal to 60 in at least one of the survey components (physical or psychological). Providers for these patients received a faxed communication.

Conclusions: Preliminary: Pharmacists can use the MSIS-29 phone survey to capture information about the physical and psychological impact of MS in patients receiving IMT.

Presentation Objective: Describe how to identify MS treatment non-responders, and how to prompt prescribers to consider a change in IMT therapy. **Self-Assessment:** How can pharmacists recognize MS patients who may not be responding to IMTs?

8:40

Room H

MCP

ABSTRACT REPRODUCTION FORM

ROLE OF CORRECTION FACTOR AND MEALTIME BOLUS REGIMEN OF INSULIN ASPART AND BASAL INSULIN REGIMEN IN THE MANAGEMENT OF TYPE 1

Mamta Naik, Marie Michael
Wolfson Children's Hospital - Baptist Health - Jacksonville, FL

Purpose/Background: Three components are recommended in the guidelines for treatment of type 1 diabetes mellitus, which are multiple insulin injection, dosing based on carbohydrate intake, premeal glucose and anticipated activity, and use of long-acting insulin for basal requirements. To match these guidelines a new protocol using correction factor and mealtime bolus regimen for the treatment of type 1 diabetes mellitus was implemented for the noncritically ill inpatient children. Previously, the sliding scale regimen was used for glycemic control.

This study will analyze the efficacy of a recently implemented protocol to determine the effects on glycemic control. Also, the efficacy between age groups on this protocol and time with diagnosis will be assessed. The study will also analyze the safety of this protocol with the number of hypoglycemic events and number of adjustments on the protocol.

Methodology: This is a retrospective chart review comparing charts from Jan 1, 2006-Oct 31, 2006 and charts from Jan 1, 2010-Oct. 31, 2010. The study population shall include all pediatric patients, ages 1 to 18 years, with type 1 diabetes mellitus admitted to endocrine service. Patients who were admitted, received current standard of care and then, discharged will be included in this study.

Results:

Conclusions:

Presentation Objective: Describe how the implementation of the protocol has impacted glycemic control, number of hypoglycemic episodes and adjustments to the regimen. **Self-Assessment:** What are the advantages of the correction factor and mealtime bolus regimen?

8:40

Room I

PED

ABSTRACT REPRODUCTION FORM

EVALUATING THE EFFECT OF HYPERGLYCEMIA ON THE DEVELOPMENT OF NOSOCOMIAL INFECTIONS IN MEDICAL UNITS

Kathryn Williford, Amy Cravens, And Jacqueline Kelley
St. Thomas Hospital - Nashville, TN

Purpose/Background: Elevated blood glucose levels are associated with impaired immune function, slower wound healing, reduced antimicrobial function, and an increased risk of infection. Furthermore, studies have shown that hyperglycemia is linked to poor clinical outcomes including longer hospital stays, excessive healthcare costs, and increased rates of mortality and morbidity. It is well documented that tight glycemic control in the intensive care unit (ICU) helps reduce the possibility of these clinical outcomes. Recently, limited data has shown that treating hyperglycemia as a priority outside the ICU may also improve these clinical outcomes.

Methodology: A retrospective chart review was conducted of non-ICU patients admitted from October 2009 to October 2010 with blood glucose levels greater than 140 mg/dL within 24 hours of admission. Patients were excluded if admitted to the ICU, had an active infection upon admission, presented with a suppressed immune system, or received parental nutrition or dialysis during admission. Data was collected from a computer generated report and medical records then analyzed by the principle investigator.

Results:

Conclusions:

Presentation Objective: To determine if there is a correlation between hyperglycemia and the development of nosocomial infections on medical units. **Self-Assessment:** What is the impact hyperglycemia has on the development of nosocomial infections at Saint Thomas Hospital?

8:40

Room J

IM

ABSTRACT REPRODUCTION FORM

ASSESSING THE RATE AND CAUSES OF HYPOGLYCEMIA IN ADULTS AT
NORTHEAST GEORGIA MEDICAL CENTER
Cristy M. Gaddy, Amy Knauss, Hannah Day
Northeast Georgia Health Systems - Gainesville, GA

Purpose/Background: Numerous studies have shown that treating hyperglycemia can improve patient outcomes; however, strategies used to maintain tight glycemic control can cause hypoglycemia. In June 2009, the American Diabetes Association revised inpatient glycemic goals due to reports showing high rates of hypoglycemia. As a result, hospitals have taken initiatives to prevent hypoglycemic events. The objectives of this study are to identify the rate of inpatient hypoglycemia, the causes of observed hypoglycemic events and to evaluate hypoglycemia treatment.

Methodology: Phase 1 is a retrospective chart review of 100 patients hospitalized from June 1, 2010 to August 31, 2010 who have had at least one hypoglycemic event, defined as a glucose point-of-care (POC) level less than 70mg/dl. Phase 2 is a concurrent evaluation of 50 patients hospitalized from January 12, 2011 to March 1, 2011 with at least one hypoglycemic event. Patients are identified using Abbott glucose POC software called PrecisionWeb™. Exclusion criteria include patients younger than seventeen years old, patients with an admission diagnosis of hypoglycemia and patients with falsely low glucose POC due to a testing error. The following data is collected from each patient: demographics, diabetic medications, glucose POC values, suspected etiology of hypoglycemia, symptoms and duration of hypoglycemic episode, and hypoglycemia treatment. Results from phase 1 and 2 will validate current practices or support insulin protocol changes and hospital-wide hypoglycemia education.

Results:

Conclusions:

Presentation Objective: Identify causes of hypoglycemia in a large community health system. **Self-Assessment:** What are some common causes of hypoglycemia in a community hospital?

8:40

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

RETROSPECTIVE ASSESSMENT OF THE OCCURRENCE OF SIDE EFFECTS
BETWEEN PATIENTS RECEIVING HIGH DOSE VS NORMAL DOSE
ANTIPSYCHOTICS

J. Kanai, A. Wollitz, W. Ellien, M. Melroy, W. Klugh Kennedy
Memorial University Medical Center - Savannah, GA

Purpose/Background: Antipsychotics are associated with an extensive list of side effects. Side effects most associated with atypical antipsychotics include weight gain, dyslipidemia, diabetes mellitus, QTc prolongation, cataracts and sexual side effects. Older antipsychotics are more often associated with EPS and tardive dyskinesia compared to the atypical agents.

This study will evaluate patients on high dose versus standard dose therapy. High dose is defined by the British National Formulary as monotherapy of an antipsychotic that surpasses the maximum recommended dose. Polypharmacy, defined as more than one antipsychotic medication, is considered high dose after the prescribed amount exceeds 100 percent of the maximum dose.

Methodology: The study will be conducted by retrospective review of electronic patient profiles receiving antipsychotic medications. A list will be generated for patients receiving antipsychotic therapy between January 2, 2009-August 31, 2010. Our high dose population will consist of individuals who meet the definition previously described as monotherapy or combination therapy resulting in >100% of the maximum dose. Propensity scoring will then be used in order to closely match our high dose population with individuals receiving doses of antipsychotics within the recommended therapeutic range. Propensity scoring will be performed based upon the following beginning with the most important; drug, diagnosis, age, gender, ethnicity, polypharmacy vs monopharmacy.

Results:

Conclusions:

Presentation Objective: Determine whether high-dose antipsychotic use results in an increase in antipsychotic side effects. **Self-Assessment:** Does high-dose therapy cause an increase in side effects?

8:40

OLY 2

PSY

ABSTRACT REPRODUCTION FORM

ANALYSIS OF HEALTH CARE COST REGARDING UNUSED/DISCARDED
MEDICATIONS OF PATIENTS AT AN URBAN MEDICAL CENTER
Jowers B, Tinsley J, Hogan T, Cammilleri J
Shands Jacksonville Department Of Pharmacy - PGY1 - Jacksonville, FL

Purpose/Background: The number of prescription medications Americans use continues to increase. Data collected between 2003-2006 by the National Health and Nutrition Survey estimates almost forty percent of Americans between the ages of 18-44 years old have used at least one prescription medication in the past month. As the number of prescriptions patients use continues to increase, so does the number of discarded or unused medications. Several complications surround the issue of leftover or unused medications which demand evaluation.

The purpose of this study is to quantify the cost of discarded/unwanted medications to Shands Jacksonville Medical Center. This study will also evaluate the most common classes of medications patients discard and address the reasons the medications are discarded.

Methodology: A medication amnesty event from November 1, 2010 thru January 31, 2011 provided patients an opportunity to discard their medications and fill out a questionnaire describing the reason(s) for discarding medications. The discarded medications and questionnaires were analyzed.

Results:

Conclusions:

Presentation Objective: To analyze the economic impact of discarded or unused medications, address the reasons medications are discarded, and describe the most common classes of medications discarded. **Self-Assessment:** Describe the role of pharmacists in reducing the economic burden of discarded or unused medications.

8:40

PARTH 1

ADM

ABSTRACT REPRODUCTION FORM

IMPACT OF AN ELECTIVE COURSE ON PHARMACY STUDENTS ATTITUDES AND
INTENTIONS TO PURSUE POSTGRADUATE TRAINING
Catherine A. Bourg, Beth B. Phillips, William J. Guffey, Sally A. Huston
University Of Georgia College Of Pharmacy - Athens, GA

Purpose/Background: The purpose of this study was to determine the impact of a residency elective course on pharmacy students' attitudes and intentions to pursue postgraduate residency training.

Methodology: Third year pharmacy students were surveyed regarding their attitudes and intentions to pursue residency training using the Theory of Planned Behavior. A pre- and post-semester survey was administered. Demographic information was also collected.

Results: A total of 123 students were surveyed. 96 students completed both surveys. Students enrolled in the elective (intervention) compared to students not enrolled (control) had significantly higher intentions to pursue residency training at the end of the semester ($p = 0.003$). In addition, intervention students rated confidence in their abilities to prepare a curriculum vitae, list characteristics that residency programs look for in applicants, and prepare for residency interviews and interview questions significantly higher following the course ($p < 0.0001$) compared to control students.

Conclusions: An elective course developed to introduce third year pharmacy students to postgraduate residency training significantly increased intention to pursue a residency position and confidence in abilities associated with the residency application process.

Presentation Objective: Following the presentation, the audience should be able to discuss the impact that an elective course had on pharmacy students' attitudes and intentions to pursue residency training. **Self-Assessment:** True or False? There has been a three-fold increase in the number of pharmacy students pursuing residencies over the past five years.

A. True
B. False

Contact e-mail: bourgc@uga.edu

8:40

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

EVALUATION OF AN ALCOHOL WITHDRAWAL PROTOCOL IN THE INTENSIVE AND INTERMEDIATE CARE UNITS AT AN URBAN TEACHING INSTITUTION
Tara Holt; Derek Burden; Marina Rabinovich; Prasad Abraham; Greg Martin
Grady Health System - Atlanta, GA

Purpose/Background: Alcohol withdrawal syndrome (AWS) is an important complication that can occur in those with alcohol dependence, especially in the hospital setting. According to the Management of Alcohol Withdrawal Delirium guidelines, benzodiazepines are recommended first line to reduce the signs and symptoms of withdrawal. Evidence suggests symptom-triggered dosing of benzodiazepines leads to decreased quantity of drug used and shorter treatment duration.

Grady Health System (GHS) is a large urban teaching hospital serving the indigent population. Alcohol dependency is a common problem but until recently there was no standardized approach for managing AWS at GHS. In 2010, the Alcohol Withdrawal Treatment Protocol for Intensive and Intermediate Care Units and the Grady Alcohol Withdrawal Assessment Scale (GAWAS) were implemented as a pilot to provide evidence-based care to patients and to aid in improving outcomes.

Methodology: This project will evaluate patient treatment outcomes pre- and post-protocol implementation. Patients initiated on the protocol from June 2010 to March 2011 will be included and compared to patients treated prior to protocol implementation (April 2009 to March 2010). The primary outcome will be the intensive care/intermediate care unit length of stay. Secondary outcomes include overall hospital length of stay, total dose of benzodiazepines, time to reach symptom control, dose and frequency of adjunctive therapies used, and adverse events occurring during the treatment period.

Results:

Conclusions:

Presentation Objective: Evaluate patient outcomes pre- and post-implementation of an alcohol withdrawal protocol at GHS. **Self-Assessment:** Will the implementation of an alcohol withdrawal protocol improve patient outcomes?

9:00

Room A

CCM

ABSTRACT REPRODUCTION FORM

EVALUATION OF OUTCOMES AFTER IMPLEMENTATION OF A SEPSIS RESPONSE TEAM
Crystal L. King, Heather D. Eppert And Rachel T. Lazim
Blount Memorial Hospital - Maryville, TN

Purpose/Background: Sepsis continues to be associated with high morbidity and mortality despite improvements in medical care. Early goal-directed therapy has been shown to decrease sepsis-related morbidity and mortality. The main purpose of this study is to evaluate adherence to treatment guidelines and associated patient outcomes before and after implementation of a multidisciplinary sepsis response team (SRT) in a community hospital.

Methodology: Patients presenting to the emergency department (ED) and admitted to the hospital with a diagnosis of sepsis, severe sepsis, or septic shock during the time frames of April 1 September 30, 2009 (pre-implementation group) and April 1 September 30, 2010 (post-implementation group) will be identified based on retrieval of diagnosis codes through ED electronic medical records. Patients less than 18 years of age and/or pregnant patients will be excluded. Reported source of infection, hospital length of stay, days of mechanical ventilation, and patient outcomes will be recorded and evaluated. Treatment variables evaluated include intravenous fluid resuscitation, requirement of vasopressor therapy, and appropriateness and time of delivery of initial antibiotic therapy. Treatments will be evaluated based on treatment guidelines applicable at the time of hospital admission.

Results: 166 patients were identified; 58 patients in the pre-implementation group and 108 patients in the post-implementation group. The SRT was activated for 70 patients (64.8%) in the post-implementation group.

Conclusions:

Presentation Objective: Discuss impact of a SRT on adherence to treatment guidelines and patient outcomes **Self-Assessment:** Do patient outcomes and adherence to treatment guidelines improve upon implementation of a SRT?

9:00

Room B

CCM

ABSTRACT REPRODUCTION FORM

EVALUATION OF BACTERIAL RESISTANCE WITH CONSOLIDATED AMINOGLYCOSIDE DOSING
Kevin Brittain, Natalie Heath, J.P. Ginsberg, S. Scott Sutton
WJC Dorn VA Medical Center - Columbia, SC

Purpose/Background: Aminoglycosides exhibit concentration-dependent bacterial killing and a post-antibiotic effect leading to the use of consolidated dosing in efforts to achieve higher peak concentrations for bacterial killing and decrease nephrotoxicity. This observational, retrospective analysis explored the relationship of consolidated aminoglycoside dosing and gram-negative bacterial resistance.

Methodology: Retrospective, observational analysis evaluating patients receiving gentamicin and tobramycin from January 1, 2000 to December 31, 2009. Data from the Veterans Affairs Health Care System (VAHCS) Electronic Medical Record was gathered and analyzed to evaluate the relationship of consolidated aminoglycoside dosing and bacterial resistance. Patients receiving traditional aminoglycoside dosing served as control patients. Cultures and sensitivities were evaluated to determine the incidence of resistance. The number of patients who developed resistance was compared between those receiving consolidated and traditional aminoglycoside dosing. Data was analyzed with a 2-tailed T-test.

Results: Resistance to gentamicin developed in 40% of patients receiving traditional and consolidated dosing aminoglycosides (p=0.979) while resistance to tobramycin developed in 22% of patients receiving traditional and 38% of patients receiving consolidated aminoglycoside dosing (p=0.245).

Conclusions: Overall resistance rates were not statistically significantly different between traditional and consolidated aminoglycoside dosing groups. This study was limited by a small sample size and the large exclusion rates due to lack of follow-up cultures.

Presentation Objective: Explain concerns regarding the most appropriate dosing strategy of aminoglycosides as it relates to the development of bacterial resistance. **Self-Assessment:** What are the effects of traditional and consolidated aminoglycoside dosing on the development of bacterial resistance?

9:00

Room C

ID

ABSTRACT REPRODUCTION FORM

IMPACT OF PHOSPHODIESTERASE-5 INHIBITOR TREATMENT ON THE RATES OF STDs IN A VETERAN PATIENT POPULATION
Jason M. Corbo, Jamie N. Brown, William E. Bryan, Mary L. Townsend
Durham VA Medical Center - Durham, NC

Purpose/Background: While a majority of sexually transmitted diseases (STDs) occur among adolescents and young adults, older adults are often still at risk for STDs. At an age when condoms are often underused and erectile dysfunction is highly prevalent in older males, phosphodiesterase type 5 (PDE5) inhibitors have become utilized at increasing rates. In recent years, PDE5 inhibitors have been linked by several studies to risky sexual behavior and higher rates of STDs. In this study, we will investigate whether the rates of STDs are higher in a veteran population prescribed PDE5 inhibitors compared to a veteran population that was not prescribed these medications.

Methodology: This retrospective cohort study included veterans who filled at least one prescription for a PDE5 inhibitor medication at the Durham Veterans Affairs Medical Center between January 1, 2003 and January 1, 2010. A comparator cohort of veterans who have not received PDE5 prescriptions were matched to the PDE5 cohort for age, race, and marital status. Rates of new STD diagnoses were assessed and compared utilizing reports of positive STD laboratory tests and ICD9 visit codes added or documented within the study period.

Results:

Conclusions:

Presentation Objective: Describe the impact of PDE5 inhibitors on the rates of STDs in a veteran patient population. **Self-Assessment:** Do the rates of STDs differ between patients taking a PDE5 inhibitor and those who do not?

9:00

Room D

ID

ABSTRACT REPRODUCTION FORM

EVALUATION OF ENTEROCOCCUS ISOLATES AND ANTIBIOTIC PRESCRIBING BASED ON SUSCEPTIBILITIES IN A LARGE COMMUNITY HOSPITAL SYSTEM

Corinne Floyd, Chad Edgar, Carla Hawkins Locke, Margaretta Kearson
Memorial Regional Hospital - Hollywood, FL

Purpose/Background: Enterococci are gram positive bacteria with relatively low pathogenicity and virulence. However, current literature has shown that Enterococcus species are responsible for a variety of significant community-acquired and nosocomial infections. The purpose of this study is to evaluate institutional antibiogram adherence by prescribers for the treatment of enterococcal infections within a large community hospital system. Furthermore, this study aims to promote appropriate antibiotic selection for enterococcal infections based on isolate susceptibilities.

Methodology: This retrospective, multi-center study used electronic medical records to identify patients with an enterococcal infection during January 2009 to June 2010. Patients with incomplete medical records were excluded from this study. Data was recorded without the use of patient identifiers. Data collected included: patient age, gender, date of admission, weight, infectious disease consult, bed unit, hospital facility site, admitting diagnosis, prescribing physician, service that prescribed antibiotics, past medical history, allergies, site of infection, Enterococcus isolate species, all cultured organisms, drug susceptibility, concomitant antibiotics and outcome measures. Data will be analyzed using descriptive statistics.

Results:

Conclusions:

Presentation Objective: Highlight appropriate antibiotic selection for enterococcal infections based on known isolate susceptibilities and corresponding institutional antibiogram.

Self-Assessment: Is ciprofloxacin an appropriate antibiotic to continue in patients with confirmed Enterococcus urinary tract infections?

9:00

Room G

ID

ABSTRACT REPRODUCTION FORM

PROSPECTIVE EVALUATION OF PATIENT PERCEIVED BARRIERS TO ADHERENCE IN THE TREATMENT OF METASTATIC RENAL CELL CARCINOMA

Benyam Mulneh, John Valgus, Lynn G. Dressler, Allison Deal
University Of North Carolina Hospitals PGY1 Pharmacy - Chapel Hill, NC

Purpose/Background: Adherence to oral antineoplastic agents is a recent area of research which has emerged alongside new oral targeted and hormonal therapy for various malignancies. Adherence literature in the oncology population is limited but has revealed consequences of non-adherence in oral antineoplastics including poor outcomes, increased toxicity, bias in clinical trials, and increased health care costs. There are currently no published adherence studies of oral agents in RCC. Factors that affect non-adherence to oral antineoplastics are not clearly defined, but there are several potential contributors. Treatment complexity, adverse effect profiles, drug-drug and drug-food interactions, and perceived benefit of medications are all potential issues. Patient specific factors, including financial resources and cognitive ability, may also affect adherence. Through this survey study we aim to elucidate which of these factors have a strong and consistent association with non-adherence to better facilitate future interventions.

Methodology: After identification of eligible patients with mRCC on oral antineoplastics, they will be contacted via mail or in clinic and given a survey on patient perceived barriers to medication adherence. Endpoints evaluated will include the impact of prescription label information on adherence, other factors including patients perceptions of adherence with regard to food, and the role that the medication label has as a source of information for patients taking oral antineoplastics.

Results:

Conclusions:

Presentation Objective: Discuss potential barriers to adherence to oral antineoplastics in patients with mRCC. **Self-Assessment:** What are possible factors contributing to noncompliance to oral antineoplastics?

9:00

Room H

ONC

ABSTRACT REPRODUCTION FORM

REVIEW OF CEFEPIME AS EMPIRIC ANTIBIOTIC THERAPY OF FEBRILE NEUTROPENIA IN COMPARISON TO CEFTAZIDIME: A RETROSPECTIVE STUDY.

Michelle M. Bustamante, John S. Ng, Tosha A. Egelund
Wolfson Children's Hospital - Baptist Health - Jacksonville, FL

Purpose/Background: In Febrile Neutropenia (FN), many of the signs and symptoms of infection are absent; fever is frequently the only indication that there may be an underlying infection. For pediatric oncology patients, at the onset of fever a child must be evaluated and started on empiric antibiotic treatment quickly. Among the recommended empiric antibiotics for FN are Ceftazidime and Cefepime. At Wolfson Children's Hospital (WCH) fever in a neutropenic patient is defined as a single temperature $\geq 38.5^{\circ}\text{C}$ (101.3°F) or a temperature of 38°C (100.4°F) that occurs twice within a 12 hour period. The previous approach to empirically treat FN was the use of Ceftazidime monotherapy. In October of 2007, Cefepime was added to WCH formulary and has been used as the primary empiric monotherapy regimen for FN since then. The purpose of this study is to evaluate and compare the effectiveness of Cefepime and Ceftazidime for empiric treatment of FN and to demonstrate which regimen has a higher percent of treatment success

Methodology: Retrospective chart review of pediatric oncology patients admitted to WCH for FN who received treatment with Cefepime or Ceftazidime. The study has two arms: Ceftazidime, dates reviewed will be October 2004 to September 2007, and Cefepime, dates reviewed will be November 2007 to October 2010.

Results:

Conclusions:

Presentation Objective: Compare the effectiveness of Cefepime and Ceftazidime for treatment of FN in pediatric oncology patients **Self-Assessment:** What is the basis for choosing broad spectrum antibiotics for empiric therapy of FN?

9:00

Room I

PED

ABSTRACT REPRODUCTION FORM

TREATMENT OF ACUTE DECOMPENSATED HEART FAILURE: PATTERNS OF MEDICATION USE

Madelyne Cearley, Jean Nappi
Medical University Of South Carolina - Charleston, SC

Purpose/Background: Acute decompensated heart failure (ADHF) is responsible for significant use of health care resources due to frequent hospital admissions and high readmission and mortality rates. There is variation in practice surrounding the continuation, or dose reduction of beta-blocker therapy during inpatient management of ADHF. This study aims to characterize inpatient medication use practices by assessing a possible relationship between β -blocker therapy and 30-day hospital readmissions. These data will add to the current therapeutic knowledge and evidence outlining appropriate therapy for inpatient therapy.

Methodology: This retrospective review will assess prescribing patterns from adult patients discharged between January 2010 and June 2010 with a diagnosis of ADHF. Data collected will include patient demographics, patterns of medication use (drug, and dosage regimen), laboratory measurements, and 30-day readmission rates.

Results: Data collection is ongoing. To date 23 patients have been evaluated. There were 69.6% (16/23) of patients receiving β -blockers upon admission; of these 93.8% (15/16) were continued on therapy during the hospital stay and at discharge. Of those continuing therapy, 46.7% (7/15) of β -blocker regimens were changed in some way prior to discharge. Overall, 78.3% (18/23) of patients were prescribed beta-blockade at discharge.

Conclusions:

Presentation Objective: To describe the MUSC clinician prescribing practices of β -blocker therapy during hospitalization and upon discharge for the treatment of ADHF and the associated post-interventional rate of 30-day re-hospitalization. **Self-Assessment:** Did β -blocker use at discharge affect the rate of 30-day re-hospitalization?

9:00

Room J

IM

ABSTRACT REPRODUCTION FORM

ANALYSIS OF MEDICATION ERROR DETECTION BY HOSPITALIZED PATIENTS FROM A DAILY MEDICATION LIST

Kathryn Hernando, Amy Rosenberg, Thomas Johns, Erin Jones, Eric Rosenberg, Shands Teaching Hospital At UF - Gainesville, FL

Purpose/Background: It has long been recognized that involving patients in their healthcare improves medication compliance and overall patient outcomes. A great deal of research has been done on medication error reporting from the healthcare provider's perspective; however, there is far less information regarding patient-detected errors, especially in the hospital setting. As the ultimate recipient of a medication, the patient acts as the last chance for preventing a medication error. This study is designed to determine the types of errors that patients are able to identify, given a daily list of their medications during hospitalization. In addition, it is designed to determine if a patient medication list might improve patient satisfaction while hospitalized.

Methodology: Adult patients admitted to a general medicine service were identified for inclusion in the study. Patients were excluded if they were unconscious, prisoners, non-English speaking, or were discharged prior to the first follow up day. Daily subjects were provided with their medication list. On each day of the trial period, subjects were asked questions regarding their medications and if any mistakes were noted. Additionally, on the first and last day of the study, subjects were asked to complete a brief survey to assess patient satisfaction and the impact of this list on patient involvement in their care.

Results:

Conclusions:

Presentation Objective: Identify the rationale behind patient-driven medication error reporting. **Self-Assessment:** What types of medication errors are patients able to identify?

9:00

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

SECOND GENERATION ANTIPSYCHOTICS AND METABOLIC ABNORMALITIES: EVALUATING DEMOGRAPHIC RISK FACTORS

Maria Thurston, David Hankin, And Erica Duncan
Atlanta Veterans Affairs Medical Center - Atlanta, GA

Purpose/Background: Some demographic variables may place certain patients at a greater risk of developing the metabolic syndrome. To determine whether age, sex, and/or race are potential risk factors for developing metabolic abnormalities among patients treated with a second generation antipsychotic (SGA).

Methodology: Design: Retrospective, computerized data analysis from patients in 8 medical centers in the Veterans Affairs (VA) southeast district (VISN 7) with e 2 consecutive 30-day outpatient prescriptions for one or more of the SGAs between 7/1/1999 and 9/30/2008. Data: Metabolic measures to be analyzed include body mass index, systolic blood pressure, random glucose, hemoglobin A1C, total cholesterol, high density lipoprotein, low density lipoprotein, and triglycerides. Demographic variables to be extracted will include age, race, and sex.

Inclusion Criteria: Adherent to outpatient SGA treatment. Ascertainment of at least one metabolic measure both before and during their SGA treatment.

Exclusion Criteria: Patients who are missing an entry for race will be excluded from race based analysis.

Analysis Plan: Each patient's metabolic measures at baseline will be compared to their measures during SGA treatment. It will be determined whether each patient did/did not have a significant change in metabolic measures during treatment. The effect of age, race, and sex on the change scores will be examined with medication as a factor.

Results:

Conclusions:

Presentation Objective: Identify demographic variables that may increase the risk SGA induced metabolic syndrome. **Self-Assessment:** What demographic variables may increase the risk of SGA induced metabolic syndrome?

9:00

OLY 2

PSY

ABSTRACT REPRODUCTION FORM

AN EVALUATION OF DRUG SHORTAGES ON PHARMACY COSTS AND ACTIVITIES

C. Viviane Barry, John S. Novak, Leah G. Ward
Mayo Clinic In Florida - Jacksonville, FL

Purpose/Background: The purpose of this study is to evaluate the impact of drug shortages on pharmacy costs and activities in a hospital setting.

Methodology: Procurement costs of drug products that would have been ordered will be compared to the acquisition cost of what was ordered for every drug on shortage during the study time period. A net-cost difference will be calculated. Data on activities and time spent completing activities will be collected from the procurement team during this 12-week prospective observational study. Information on medication errors will be obtained from risk management to assess patient safety.

Results: Data from an interim analysis indicates an average of approximately 20 hours per week spent on all drug-shortage related activity.

Conclusions: The list of activities involved in managing drug shortages is being collected and, at this time, coincides with current hospital practice processes. Furthermore, activities are consistent with best practices. Due to study limitations, the amount of time spent managing drug shortages is likely understated. Because the trend in the amount of drugs in short supply appears to be increasing, the impact to hospital labor and drug procurement costs may increase.

Presentation Objective: Discuss the impact of drug shortages on drug procurement costs and the time and activities to manage drug shortages. **Self-Assessment:** How can the process for managing drug shortages be improved?

9:00

PARTH 1

ADM

ABSTRACT REPRODUCTION FORM

INFLUENCE OF PATIENT DEMOGRAPHIC FACTORS ON ADHERENCE TO FOLLOW-UP IN A PHARMACIST-DELIVERED DIABETES MANAGEMENT SERVICE

Emily S. Prohaska, Jennifer D. Smith
Campbell University School Of Pharmacy - Buies Creek, NC

Purpose/Background: Diabetes is a major public health concern in the United States. The National Standards for Diabetes Self-Management Education recognize pharmacists as key members of the multidisciplinary healthcare team. Previous studies have examined a variety of sociodemographic factors and the respective effects on appointment adherence in the primary care setting. The primary objective of this study is to determine the association between selected patient factors and appointment adherence. The secondary objective is to describe the A1c values of subjects during the study period in adherent and nonadherent subjects.

Methodology: This retrospective case-control study was approved by the Campbell University Institutional Review Board. The study sample included patients seen for pharmacist-delivered diabetes management services at the Wilson Community Health Center in Wilson, NC between July 1, 2009 and June 30, 2010. Eligible subjects were at least 18 years of age, diagnosed with type 1 or type 2 diabetes mellitus, and scheduled for at least two appointments with clinical pharmacy services during the study period. Subjects were excluded if followed by endocrinology for diabetes management or if he or she died during the study period. Data will be analyzed using univariate and multivariate analyses, logistic regression, and analysis of covariance.

Results:

Conclusions:

Presentation Objective: Evaluate associations between selected patient demographic factors and appointment adherence with a pharmacist-delivered diabetes management service. **Self-Assessment:** What patient-specific factors influence adherence to follow-up with pharmacist-delivered diabetes management services in a community health center?

9:00

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

MEDICATION ERRORS UPON OVERRIDE IN THE EMERGENCY DEPARTMENT
PRE- AND POST-COMPUTERIZED PHYSICIAN ORDER ENTRY IMPLEMENTATION
Tai Houtz, John Patka, Constantine Zaharis, Debbie Vigliotti, Leon Haley
Grady Health System - Atlanta, GA

Purpose/Background: This quality improvement project will evaluate medication errors occurring via override. It will focus on high-risk medications identified from the Grady Health System high-alert policy list that is adapted from the Institute of Safe medication Practices. The results of this project will be useful as a quality improvement initiative for GHS to reduce medication errors and improve patient safety.

Methodology: Patients seen in the emergency department at Grady Health System from July 1, 2010 through March 31, 2011 will be examined. The primary outcome measure is the percentage of medication errors pre- and post- computerized physician order entry implementation. Secondary outcome measures include the percent change in errors in each of the following categories: severity, prescribing, administration, allergy, wrong time, wrong dose, and incorrect route of administration.

Results:

Conclusions:

Presentation Objective: To identify errors that can occur via override in the emergency department. **Self-Assessment:** How can a pharmacist in the emergency department improve patient safety and prevent medication errors?

9:20

CCM

Room A

ABSTRACT REPRODUCTION FORM

SURVIVING SEPSIS CAMPAIGN: OUTCOMES REVIEW AT A COMMUNITY
TEACHING HOSPITAL
Julieth Urbina, William Kernan, Osmel Delgado
Cleveland Clinic Florida - Weston, FL

Purpose/Background: Severe sepsis and septic shock are the cause of mortality in one of every four patients. The international Surviving Sepsis Campaign guidelines strongly recommend initial IV fluid resuscitation within the first 6 hours and starting antibiotics within one hour of sepsis diagnosis (three hours if the patient is in the emergency department). The objective of this study is to evaluate the outcomes of patients who are treated with fluid resuscitation and empirical IV antibiotics according to national sepsis guideline recommendations.

Methodology: This is a retrospective, single center, observational study. It has been approved by the Institutional Review Board at Cleveland Clinic Florida. All patients admitted to the hospital from September 2009 to August 2010 with the primary or secondary diagnosis of sepsis will be screened for inclusion into the study. Patients younger than 18 years of age, admitted for acute myocardial infarction, congestive heart failure, hemorrhagic shock, or admission to the ICU following cardiac surgery have been excluded. The following data will be collected: patient age, antimicrobial therapy, length of ICU and hospital stays, sepsis diagnostic information (blood pressure, temperature, white blood cell count, organ dysfunction) and therapy parameters (mean arterial pressure (MAP), central venous pressure (CVP) and systolic blood pressure (SBP)). Mortality and ICU length of stays will be evaluated based on compliance of early goal directed therapy.

Results:

Conclusions:

Presentation Objective: Understand key bundles of sepsis treatment **Self-Assessment:** The sepsis guidelines strongly recommend initial IV fluid resuscitation within how many hours?

9:20

CCM

Room B

ABSTRACT REPRODUCTION FORM

EVALUATION OF BODY MASS INDEX ON VANCOMYCIN VOLUME OF
DISTRIBUTION FOR EMPIRIC DOSING
Kimberly A. Millward, Ginger M. Eubank, J.P. Ginsberg, S. Scott Sutton
WJB Dorn Va Medical Center - Columbia, SC

Purpose/Background: To evaluate the vancomycin volume of distribution (Vd) of 0.7 L/kg when empirically calculating a vancomycin dose in patients with a BMI>25 versus BMI 18.5-24.99.

Methodology: A retrospective observational analysis was conducted of patients who received vancomycin and had at least one steady state vancomycin level drawn. Patients had to be 18-65 years of age, have a creatinine clearance >60ml/min, and fall into a body mass index (BMI) category of BMI 18.5-24.99 or BMI>25. Differences in the expected trough based on empiric dosing calculations versus the actual trough obtained by the lab were evaluated using Pearson's Chi Squared test.

Results: Two hundred and six patients were included in the analysis and 72 had BMI 18.5-24.99 and 134 had a BMI>25. Baseline characteristics of the study population were: 96% male; 54% Caucasian; average estimated creatinine clearance 103ml/min; and average vancomycin trough 9.96 mcg/ml. The BMI>25 category had significantly (p=0.004) more Caucasian patients. When evaluating the difference in lab trough value versus the expected trough, a BMI>25 showed statistically significant variance (p = 0.004).

Conclusions: A statistically significant difference in the lab trough versus expected trough in BMI>25 versus BMI 18.5-24.99 suggests a variance in empiric dosing based on weight. However, we also observed that patient's across all BMI categories were empirically under dosed with goal troughs obtained in less than 15% of patients.

Presentation Objective: Understand the variability that BMI can have on empiric vancomycin dosing. **Self-Assessment:** What is the pharmacist's role in vancomycin dosing?

9:20

Room C

ID

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF AN ANTIMICROBIAL STEWARDSHIP PROGRAM AT A
COMMUNITY HOSPITAL: IMPACT ON PIPERACILLIN/TAZOBACTAM USE
Stephanie S. Grimes, Brad J. Crane, Olga K. Marlar, And Jeanne R. Ezell
Blount Memorial Hospital - Maryville, TN

Purpose/Background: Emergence of multi-drug resistant organisms and the lack of new antibiotic development is becoming a huge concern in the US, causing many clinicians to prescribe broad-spectrum antibiotics, such as piperacillin/tazobactam. The Infectious Disease Society of America guidelines recommend to begin treatment broad and to narrow coverage once cultures and a definitive diagnosis have been determined. The purpose of this project is to assess the need for a formal antimicrobial stewardship program (ASP) at a community hospital already providing some informal antimicrobial stewardship by measuring its impact on piperacillin/tazobactam use.

Methodology: On ASP meeting days, a pharmacist prints a list of all patients receiving piperacillin/tazobactam for review by the ASP team. Each patient case is assessed by the pharmacist to determine optimal antibiotic therapy for the indicated diagnosis. The pharmacist then meets with an Infectious Disease physician to discuss patient cases and make joint antibiotic recommendations. The recommendations are co-signed by the physician/pharmacist team and placed in the progress notes section of the chart for review by the attending physician. The pharmacist follows up to determine response. The following data is collected for analysis: total patients reviewed, total recommendations left, percentage of recommendations accepted, time to acceptance, type of recommendation, and the cost savings associated with ASP.

Results:

Conclusions:

Presentation Objective: To determine the need for a formal ASP at a community hospital and its impact on piperacillin/tazobactam use. **Self-Assessment:** What impact does a formal ASP have on piperacillin/tazobactam in a community hospital?

9:20

Room D

ID

ABSTRACT REPRODUCTION FORM

EVALUATION OF PHARMACIST-LED VANCOMYCIN MONITORING
Casey Murphy, Helen Yotseff
Miami VA Healthcare System - Miami, FL

Purpose/Background: Current standard of care for vancomycin at the Miami VA is primarily provided by the prescribing physicians who order labs and make dose adjustments based on the results. With the many responsibilities physicians have in a day, vancomycin follow-up may be at risk of getting lost or delayed. The purpose of this study is to determine if a pharmacokinetic consultation for vancomycin dosing will improve therapeutic trough concentrations, renal dosing, and proper trough concentration lab draws.

Methodology: A retrospective review of patients initiated on vancomycin from March 2010 will be conducted and considered the control or standard of care group. This review will include proper initial dosing, timing of trough concentrations, and follow-up with dose changes, if needed. A prospective review of all patients initiated on vancomycin from two of the four medical service teams for a four week period will be managed by pharmacy. For each patient the indication, renal function and weight will be recorded at baseline. Pharmacy will follow appropriate dosing, trough collection at proper time, and dose adjustments based on trough levels. At the conclusion, statistical analysis will be performed evaluating the impact of pharmacist-led monitoring on therapeutic trough concentrations. A brief survey and educational in-service will be given evaluating the prescribers' perception of the pharmacokinetic consultation.

Results:

Conclusions:

Presentation Objective: To describe the advantages of pharmacist led vancomycin dosing and monitoring compared to standard of care provided by the medical staff. **Self-Assessment:** What is vancomycin's therapeutic trough concentration for pneumonia?

9:20

Room G

ID

ABSTRACT REPRODUCTION FORM

ESTIMATING KIDNEY FUNCTION IN PATIENTS RECEIVING CARBOPLATIN
CHEMOTHERAPY AND THE IMPLICATIONS FOR DOSING
Brian Murray, Jill Bates, Larry Buie, Kenneth Shermock
University Of North Carolina Hospitals PGY1 Pharmacy - Chapel Hill, NC

Purpose/Background: Carboplatin is a narrow therapeutic index chemotherapy agent with dose-limiting hematologic toxicity that is employed for the treatment of epithelial, germ cell, and hematological malignancies. Carboplatin is dosed based on an equation that estimates exposure from dose and creatinine clearance, and AUC for carboplatin correlates with efficacy and toxicity. The NKDEP recommended a change in serum creatinine assay to the IDMS-traceable assay in order to improve accuracy and consistency in measurement across institutions. The IDMS assay creates a 5-20% difference in measured serum creatinine compared to previous methods. The purpose of this study is to examine the impact of the serum creatinine assay change on carboplatin dose and patient outcomes.

Methodology: A retrospective chart review was performed for all patients who received carboplatin as inpatient or outpatient chemotherapy within two months before and after the serum creatinine assay change. Patients with stable renal function (< 20% change) before and after the assay change were included. Patient demographics, calculated and actual carboplatin doses, and complete blood counts were recorded where available. Each patient served as a matched comparison before and after the assay change. Differences between carboplatin delivery and outcomes before and after the assay change were assessed for each patient and across various patient subgroups.

Results:

Conclusions:

Presentation Objective: Assess the potential impact of implementing the IDMS assay for serum creatinine on carboplatin dosing and patient outcomes. **Self-Assessment:** What differences can pharmacists expect to see in carboplatin therapy as a result of changes in serum creatinine assays?

9:20

Room H

ONC

ABSTRACT REPRODUCTION FORM

COMPARISON OF JET-INJECTED LIDOCAINE VERSUS VAPOCOOLANT SPRAY IN
CHILDREN UNDERGOING INTRAVENOUS CANNULATION OR VENIPUNCTURE
Jenny Mason, Amanda Brown, Nisha Patel
Wolfson Children's Hospital - Baptist Health - Jacksonville, FL

Purpose/Background: Intravenous cannulation is the most common cause of pain in pediatric patients and can cause significant stress in the hospital setting. Failure to alleviate pain can result in an uncooperative child, longer procedure time, and unsuccessful cannulation. Currently, there is no gold standard for analgesia pertaining to intravenous cannulation or venipuncture. Previous studies have conflicting results for which analgesic provides superior pain relief. At our institution we have recently initiated the use of jet-injected lidocaine (J-tip®). The current protocol allows for J-tip® with lidocaine, vapocoolant spray (Pain Ease®), and/or topical lidocaine (LMX4®). The purpose of this study is to compare the efficacy of analgesia and conduct a cost-effective analysis of J-tip® with lidocaine to Pain Ease® for insertion of a peripheral intravenous cannula or venipuncture in pediatric patients. A sub-analysis will evaluate differences in analgesia efficacy based on age. Secondary objectives include insertion efficacy, device failure, and adverse effects.

Methodology: A prospective study enrolling medical/surgical patients ages 7-18 years old requiring peripheral intravenous cannulation or venipuncture from December 2010 to March 2011. Patients were randomized to either jet-injected lidocaine or vapocoolant spray treatment groups. Investigators assessed patients' pain level before, during, and after the procedure using the Wong-Baker FACES Pain Scale. Adverse reactions, number of attempts for successful cannulation, and device failure were documented.

Results:

Conclusions:

Presentation Objective: Compare jet-injected lidocaine to topical vapocoolant spray for analgesia during intravenous cannulation and venipuncture. **Self-Assessment:** What are the potential benefits of jet-injected lidocaine in pediatric patients undergoing peripheral intravenous cannulation or venipuncture?

9:20

Room I

PED

ABSTRACT REPRODUCTION FORM

THIRTY-DAY READMISSION RATES IN COPD POPULATION PRIOR TO AND POST
IMPLEMENTATION OF ADMISSION AND DISCHARGE PROTOCOLS
Nimisha Soni, Wendy Bullington, Antine E. Stenbit
Medical University Of South Carolina - Charleston, SC

Purpose/Background: Chronic obstructive pulmonary disease (COPD) is a debilitating disease, which often results in hospital readmissions. Many of these patients are treated inappropriately while hospitalized leading to suboptimal care and increased cost. Upon discharge, patients are often not placed on appropriate chronic bronchodilator therapies. Additionally, they lack education and a follow up appointment with a primary care physician (PCP). Due to these reasons, patients have higher readmission rates within 30 days of discharge. The goal of this study is to evaluate whether implementation of COPD admission and discharge protocols will impact 30-day readmission rates for this patient population at a large academic medical center.

Methodology: One hundred adult patients admitted with the ICD-9 diagnosis code for COPD exacerbation from August 2008 to August 2010 were randomly selected for retrospective chart review. Prospective chart review of adult patients with the ICD-9 diagnosis code for COPD exacerbation will be conducted post implementation of the admission and discharge protocols to examine readmission rates within 30 days.

Results: The results of the retrospective chart review revealed that only 23% of patients were being staged by the GOLD staging system at any point during their hospitalization. Additionally, only 2% were being referred for pulmonary rehab, 2% for PFTs after discharge, and 37% were being over treated in the hospital. Admission and discharge protocols and education materials are currently being implemented.

Conclusions: Pending

Presentation Objective: Describe whether standardized COPD protocols improve patient care. **Self-Assessment:** What is the 30-day readmission rate of COPD population at your institution?

9:20

Room J

IM

ABSTRACT REPRODUCTION FORM

ASSESSMENT OF REMS PROCESSES IN AN ACADEMIC MEDICAL CENTER TO IDENTIFY OPPORTUNITIES TO ADDRESS COMPLIANCE

Lindsey Childs, Earnest Alexander, Minh-Tri Duong
Tampa General Hospital - Tampa, FL

Purpose/Background: The Food and Drug Administration (FDA) seeks to identify, prevent, and mitigate the risks associated with medications. Risk Evaluation and Mitigation Strategies (REMS) is its latest effort. There have been no studies investigating a hospital's REMS compliance. The purpose of this quality assessment project is to determine a large, academic medical center's REMS compliance and to identify opportunities to improve REMS processes.

Methodology: All drugs with an FDA required REMS were analyzed for their REMS components. Drugs with REMS applicable to the outpatient setting only or ordered outside of the study timeframe (January 2009 to June 2010) were excluded. Inpatient REMS-requiring drugs were reviewed for existence of a pharmacy policy and/or procedure that fulfills each drug's REMS requirements. Compliance was defined as the existence of such a policy and/or procedure. Results of the study will be used to develop an action plan to address the hospital's compliance with inpatient REMS.

Results: 145 drugs were analyzed for their REMS requirements; 22 (15%) were inpatient applicable. 10 of the 22 drugs were ordered in study period and evaluated for compliance. Compliance was 30% (3/10) overall with 29% (2/7) compliance for drugs that required Elements to Assure Safe Use. Seven drugs for which the institution was non-compliant are darbopoetin, prasugrel, epoetin, ambrisentan, pregabalin, oxycodone CR, and buprenorphine/naloxone.

Conclusions: Significant opportunities exist to improve institutional non-compliance with REMS.

Presentation Objective: List the different possible required components of a REMS drug.

Self-Assessment: What are the four components that can be required in a REMS?

9:20

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

COMPARISON OF BASELINE LIPID MONITORING IN SCHIZOPHRENIC VERSUS BIPOLAR SUBJECTS NEWLY PRESCRIBED ATYPICAL ANTIPSYCHOTICS

Laundon Wr, Muzyk Aj, Christopher Ej Rothrock-Christian T., Jiang W
Duke University Hospital - Health System Pharmacy Adm. - Durham, NC

Purpose/Background: The 2004 consensus statement by the American Diabetes Association, American Physician Association, American Association of Clinical Endocrinologists, and North American Association for the Study of Obesity set recommendations for metabolic monitoring in patients prescribed atypical antipsychotics. In addition to monitoring for weight gain and diabetes, the panel recommended a baseline and 12 week follow-up lipid panel when initiating atypical antipsychotics. Articles published since this consensus statement report that lipid monitoring proposed by these guidelines is not being followed. This study will assess lipid monitoring in patients newly prescribed an atypical antipsychotic. We will compare rates of lipid monitoring in schizophrenics versus bipolar patients hospitalized at a major academic hospital.

Methodology: Eligible patients were admitted to Duke University Hospital (DUH) between July 1, 2005 and July 1, 2010, possessing an ICD-9 code for schizophrenia or bipolar disorder, or psychosis NOS, and followed in a DUH clinic. Additional criteria included: 18-25 years old, naïve to an atypical antipsychotic, and maintained on an atypical antipsychotic at 12 weeks. Excluded patients were prescribed clozapine, were post-acute coronary syndrome, had a diagnosis of cirrhosis, or were prescribed protease inhibitors.

Results:

Conclusions:

Presentation Objective: List monitoring parameters for patients taking atypical antipsychotics. **Self-Assessment:** Consensus guidelines recommend fasting lipid panels at which intervals during atypical antipsychotic initiation?

9:20

OLY 2

PSY

ABSTRACT REPRODUCTION FORM

DETERMINING THE UTILITY OF A STUDENT SURVEY TO PROVIDE FEEDBACK ON PRECEPTING SKILLS OF PHARMACY RESIDENTS

Cassie Boland, Mary Parker, Peter Koval
Moses H. Cone Health System - Greensboro, NC

Purpose/Background: Pharmacy resident growth as preceptors is part of the objectives for ASHP-accredited PGY1 and PGY2 residencies. Currently, there is not a standard tool to evaluate pharmacy resident-preceptors. Student evaluations meet ASHP requirements for evaluating preceptor effectiveness, which enables students to function as a source of feedback for resident-preceptor development. The purpose of this study is to develop and utilize an evaluation tool to obtain precepting feedback from pharmacy students for pharmacy residents regarding their precepting skills.

Methodology: Pharmacy students on rotation at Moses Cone Health System during 2010-2011 with pharmacy resident co-preceptors were included. Students were provided e-mail links via SurveyMonkey® to anonymously evaluate the resident after each completed rotation month with the resident as co-preceptor. Survey counts were monitored. A summation of survey results was given to pharmacy residents after the data was compiled into a separate form. Pharmacy residents completed a follow-up evaluation of their precepting skills to allow for a comparison with the student feedback.

Results:

Conclusions:

Presentation Objective: Describe a process for evaluating the precepting skills of pharmacy residents. **Self-Assessment:** What is an effective process for obtaining feedback from pharmacy students on pharmacy residents' precepting skills?

9:20

PARTH 1

ADM

ABSTRACT REPRODUCTION FORM

IMPROVING TRANSITION OF CARE IN OLDER PATIENTS AFTER CARDIAC-RELATED HOSPITALIZATION

Jennifer Witten, Robert Ashworth
Alamance Regional Medical Center - Burlington, NC

Purpose/Background: The transition of care between hospitals and the community at time of discharge has historically been burdened with medication errors. Research has shown that approximately half of discharged patients experience at least one medical error. The intent of this study is to determine if intensive follow-up by a pharmacist after cardiac-related hospitalization will result in more appropriate medication therapy as well as reduced hospital re-admissions and ED visits.

Methodology: This prospective randomized study was conducted on patients 50 years of age and older that were hospitalized for a cardiac-related event between September 2010 and January 2011. Patients were randomized to one of two treatment groups: follow-up intervention via telephone interview or face-to-face medication therapy management session. Both groups were contacted for follow-up two and ten weeks after hospital discharge. Treatment groups are also compared to patients without pharmacist intervention. Primary endpoints were re-admission and ED visit rate at 30 and 60 days. Secondary endpoints include: appropriate medication therapy, self-reported medication and physician visit compliance, blood pressure at goal, and physician acceptance rate.

Results: To reach a power of 80%, 26 patients were needed in each treatment group. A total of 75 patients are enrolled; 39 patients were randomized to telephone group and 36 patients to MTM group. The results will be analyzed using ANOVA statistics.

Conclusions:

Presentation Objective: Discuss patient clinical outcome implications and potential role of pharmacists in the hospital discharge process. **Self-Assessment:** Which of the following interventions reduces re-hospitalization or emergency room visits in older patients after a cardiac-related hospitalization?

9:20

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

EVALUATION OF MEDICATION ERRORS WITH IMPLEMENTATION OF ELECTRONIC HEALTH RECORDS IN THE MEDICAL INTENSIVE CARE UNIT

Tze-Chun Vivian Liao, Prasad Abraham, Marina Rabinovich, Debbie Vigliotti
Grady Health System - Atlanta, GA

Purpose/Background: Patients in the intensive care unit (ICU) are at an increased risk for medication errors and adverse drug events from multi-factorial causes. Current literature has concluded that receiving a higher level of care with complex drug regimens and complicated disease states contribute to an increased potential for error compared to hospitalized patients on medicine floors.

Methodology: This is a prospective, observational study that will include patients admitted to the medical ICU (MICU) from August 2010 through September 2010 (before implementation of electronic health records). After implementation of electronic health records, the study will include MICU patients admitted from January 2011 through February 2011.

As Grady Health System prepares to transition from a paper-based, hand written prescribing system to electronic health records, the primary objective of this study is to compare the number of medication errors before and after the implementation of electronic health records in the MICU. Secondary objectives are to identify the type of medication errors, to determine if the errors are attributable to prescribing, dispensing, or administration, to assess the severity of the medication errors, to assess the frequency of near-miss medication errors, and to evaluate the incidence medication errors due to specific high-risk medications.

Results:

Conclusions:

Presentation Objective: Identify common types of medication errors that occur the MICU before and after implementation of electronic health records. **Self-Assessment:** What types of medication errors are reduced with implementation of electronic health records?

9:40

Room A

CCM

ABSTRACT REPRODUCTION FORM

IMPROVING DETECTION AND TREATMENT OF SEVERE SEPSIS IN INTENSIVE CARE UNIT PATIENTS ADMITTED THROUGH THE EMERGENCY DEPARTMENT

Nicholas Helms, Kimberly Hooker, Stephen Eure, Marilyn Bulloch
DCH Regional Healthcare System - Tuscaloosa, AL

Purpose/Background: Severe sepsis is a common diagnosis in patients admitted to emergency departments (ED) and intensive care units (ICU). Unfortunately, the condition continues to be associated with high mortality rates. The Surviving Sepsis Campaign (SSC) established guidelines with the goal of improving outcomes of the condition. To achieve this goal, the SSC encourages implementation of protocols based on these guidelines and multiple studies confirm improved outcomes with protocol use. The purpose of this study is to determine the effect of a protocol on treatment of severe sepsis at DCH Regional Medical Center.

Methodology: The study consisted of a retrospective chart review of severe sepsis patients admitted to ICUs from the ED during February 2009 to February 2010 to determine if current sepsis guidelines are being utilized and determine the length of stay (LOS) and mortality rates associated with severe sepsis. During the review, the current hospital sepsis protocol was updated to new SSC guidelines. Data from the chart review and the updated protocol were presented to ED and ICU physicians and nurses to encourage protocol use and educate the staff on benefits of similar protocols in the literature. After education of the staff, a second retrospective review was conducted to determine the use of the protocol and the effect on LOS and mortality.

Results:

Conclusions:

Presentation Objective: Describe the effect of protocol use on treatment of severe sepsis at DCH Regional Medical Center. **Self-Assessment:** Has protocol use improved treatment of severe sepsis at DCH Regional Medical Center?

9:40

Room B

CCM

ABSTRACT REPRODUCTION FORM

VANCOMYCIN SERUM LEVELS AND EFFICACY IN METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) INFECTIONS

Khusbu Patel Pharm.D., William Kernan Pharm.D., Leira Ramirez-Ruiz Pharm.D.
Cleveland Clinic Florida - Weston, FL

Purpose/Background: The rationale of therapeutic drug monitoring is to improve clinical outcomes and minimize toxicity. Serum vancomycin trough levels, which are the most accurate and practical method for monitoring effectiveness of the drug, are measured routinely in institutional settings and dosage adjustments are made based on those levels to maximize outcomes of therapy. Vancomycin has been the accepted standard of therapy for MRSA infections but treatment failure in these infections has been on the rise despite apparent in vitro susceptibility. The objective of this study is to determine a correlation between vancomycin serum levels and efficacy in patients with MRSA infections.

Methodology: This is a retrospective, single-center, observational study approved by the institutional review board at Cleveland Clinic Florida, a 150-bed community teaching hospital. The study includes all hospitalized patients from September 2009 to September 2010 with positive MRSA cultures that have been initiated and maintained on vancomycin for three or more days. Patient data is collected from their electronic medical records and include vancomycin serum levels, changes in antimicrobial treatment, recurrence of infection, repeat positive cultures, and indication. Demographic data collected include: age, sex, height, weight, and co-morbidities. Patients with positive outcomes will be compared to those with negative outcomes and a correlation with vancomycin serum levels will be determined.

Results:

Conclusions:

Presentation Objective: The objective of this presentation is to determine a correlation between vancomycin serum levels and efficacy in MRSA infections. **Self-Assessment:** What is the goal vancomycin serum level in patients with MRSA pneumonia?

9:40

Room C

ID

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF AN ANTIMICROBIAL STEWARDSHIP PROGRAM AT A COMMUNITY HOSPITAL

M. Alan Knauth, Brad J. Crane, Olga K. Marlar, And Jeanne R. Ezell
Blount Memorial Hospital - Maryville, TN

Purpose/Background: Antimicrobial stewardship has been shown to decrease antibiotic side effects, super infections, and the emergence of resistance, but most literature is from larger, academic hospitals. Our facility is a community hospital with several informal, pharmacy-centered antimicrobial stewardship activities currently being performed. Despite these activities, antibiotics are not being optimally utilized. For this reason, we piloted a formal antimicrobial stewardship program (ASP) with a focus on community acquired pneumonia (CAP) and *Staphylococcus aureus* bacteremia to assess the need and feasibility of continuing, and possibly expanding, the program.

Methodology: Implementation of the pilot ASP involved pharmacy, infectious disease (ID) physicians, quality improvement, infection control, microbiology, and administration. Patients were identified and reviewed by a clinical pharmacist two days each week. All patients were then reviewed with an ID physician. Antibiotic recommendations were discussed, and all final recommendations were left for the treating physician by means of a communication form that was not part of the permanent record. Data for CAP will be analyzed to determine recommendation rate, type of recommendation, acceptance rate, and cost savings. For bacteremia, we will determine if treatment is necessary, and the rate of infectious disease consultation.

Results:

Conclusions:

Presentation Objective: Identify the need for a formal antibiotic stewardship program and the impact of implementation in a community hospital. **Self-Assessment:** Are antibiotics being prescribed appropriately for CAP or is there need for formal antibiotic stewardship programs in community hospitals?

9:40

Room D

ID

ABSTRACT REPRODUCTION FORM

EVALUATING THE EFFECTS OF INITIAL IMPLEMENTATION OF AN ANTIBIOTIC STEWARDSHIP PROGRAM IN A VETERANS AFFAIRS MEDICAL CENTER

Grazia Nuccitelli And Helen Yotseff
Miami Va Healthcare System - Miami, FL

Purpose/Background: Implementation of Antibiotic Stewardship Programs (ASP) are promoted in acute hospital settings as a means to optimize clinical outcomes while minimizing unintended consequences of antimicrobial use. The Infectious Diseases Society of America guidelines describe how implementation of an ASP can benefit in limiting the emergence of antimicrobial-resistant bacteria, as well as reducing health care costs without effecting quality of care.

Currently at the Miami VA, medical teams consisting of medical attendings, residents, and clinical pharmacists oversee initiation of antimicrobials and any follow-up associated with dosing and culture/sensitivity reports. Implementing established protocols on proper empiric therapy selection, de-escalation of therapy based on cultures, and switching from parenteral to oral antimicrobials can limit antimicrobial resistant bacteria, thus improving patient care as well as reducing health care costs.

The purpose of this project is to evaluate ASP interventions made by the clinical pharmacist in initial antimicrobial selection, de-escalation, and parenteral to oral conversions of antibiotics.

Methodology: This project will focus on implementing ASP interventions in community acquired pneumonia patients. Prospectively, these patients will be reviewed for potential ASP interventions. Cost savings will also be correlated with prospective interventions.

Prospective data collected will then be compared to its corresponding time frame the previous year. Retrospective review data will be compared to current data to analyze the impact of the ASP interventions.

Results:

Conclusions:

Presentation Objective: Describe the IDSA recommended components of an Antibiotic Stewardship Program. **Self-Assessment:** What are two core strategies recommended by IDSA for an Antimicrobial Stewardship Program?

9:40

Room G

ID

ABSTRACT REPRODUCTION FORM

DEVELOPMENT AND IMPLEMENTATION OF STANDARDIZED CHEMOTHERAPY ORDER SETS AT A COMMUNITY-BASED INSTITUTION

Brannon Flores, Matthew Eckley
Huntsville Hospital - Huntsville, AL

Purpose/Background: The American Society of Clinical Oncology (ASCO) and Oncology Nursing Society (ONS) recommend the development and implementation of standardized, regimen-level, preprinted or electronic forms for chemotherapy prescription writing. In an effort to improve patient safety and comply with ASCO and ONS recommendations, institution-specific chemotherapy protocols for use in an inpatient population will be developed and implemented.

Methodology: Standardized order protocols were developed for 27 chemotherapy regimens. Pre-medications were selected based on National Comprehensive Cancer Network (NCCN) and ASCO guidelines, as well as our institution-specific formulary. Additional supportive care medications were based on clinical trials or guideline recommendations. Each chemotherapy regimen is based on and compared to primary literature. When doses in primary literature varied, the most commonly used dose was selected as our institutional standard. These protocols allow dose individualization if appropriate. 50 chemotherapy orders will be sampled prior to and following protocol implementation to evaluate compliance with recommended order standards. Additionally, the chemotherapy orders will be stored electronically into an electronic medical record.

Results: Implementation of this process is ongoing, but 27 protocols have already been created. Institutional approval of these protocols is pending.

Conclusions:

Presentation Objective: Describe methods used to design and implement standardized chemotherapy order sets and illustrate potential errors of chemotherapy order entry. **Self-Assessment:** Which of the following are components in a complete chemotherapy order? A) patient's full name and second identifier B) diagnosis C) cycle number D) regimen name E) all of the above

9:40

Room H

ONC

ABSTRACT REPRODUCTION FORM

RECOMMENDATIONS FOR EMPIRIC VANCOMYCIN DOSING IN PEDIATRIC PATIENTS BASED ON AGE

Sonia Patel And Laura Hagan
Columbus Regional Healthcare System - Columbus, GA

Purpose/Background: Clearance of vancomycin is higher in younger children, but currently no age dependent dosing recommendations for vancomycin within the pediatric population exist. The purpose is to determine optimal empiric dosing for vancomycin in pediatric patients.

Methodology: A retrospective chart review of 130 pediatric patients for one year (August 2009-2010) was conducted. Four groups were assessed: patients one month to seven years receiving eight and six hour intervals (Groups one and two respectively) and eight to eighteen years receiving eight and six hour intervals (Groups three and four respectively). Inferential statistics were used to conduct independent t-tests and Fischer's exact tests to compare mean steady state trough levels, percentages and mg/kg dosing.

Results: Percentage of goal trough values were as follows: 21% group 1, 59% group 2, 42% group 3 and 40% group 4. For steady state trough levels, $p = 0.001$ for groups one vs. two and the rest were not statistically significant (groups three vs. four, one vs. three and two vs. four).

Conclusions: Patients one month to seven years may be more likely to achieve a goal trough of ten to fifteen with an every six hours interval; however, a conclusion cannot be made on a dosing interval for patients eight to eighteen years since p-values were not statistically significant.

Presentation Objective: To discuss how the results of this study may apply to other institutions. **Self-Assessment:** Would a five year old patient be more likely to achieve a goal trough with an every six or eight hour interval?

9:40

Room I

PED

ABSTRACT REPRODUCTION FORM

ORAL ANTIDIABETIC DRUGS AND THE INCIDENCE OF INPATIENT HYPOGLYCEMIA

Delaney Ivy, Christine Ciccì, Amy Donaldson
East Alabama Medical Center - Opelika, AL

Purpose/Background: Determine the incidence of hypoglycemia when oral anti-diabetic medications are continued during an inpatient stay at East Alabama Medical Center.

Methodology: Retrospective study of patients admitted to EAMC from January 2010 to June 2010 with a diagnosis of Type 2 Diabetes, who experienced a hypoglycemia event while taking glyburide, glipizide, glimeperide, repaglinide, or nateglinide. Patients were excluded if they were less than 18 years of age, were pregnant at the time of admission, had a diagnosis of Type 1 Diabetes, treated with insulin only during the hospital stay, or admitted to the Skilled Nursing Facility. Changes in diet, NPO status, renal status, use of insulin, and the combination of anti-diabetic agents were also evaluated.

Results:

Conclusions:

Presentation Objective: Discuss the risk of hypoglycemia when oral anti-diabetic agents are continued during hospital admission. **Self-Assessment:** What are potential contributors to hypoglycemia that are commonly seen in hospitalized patients?

9:40

Room J

IM

ABSTRACT REPRODUCTION FORM

ASSESSING THE IMPACT OF A PHARMACIST ON REDUCING MEDICATION-RELATED ERRORS BY OBTAINING MEDICATION HISTORIES UPON HOSPITAL ADMISSION
Mary Soliman
Tallahassee Memorial Health Care - Tallahassee, FL

Purpose/Background: Medication errors are among the most common medical errors and are responsible for the loss of billions of dollars annually. One of the Joint Commission's National Patient Safety Goal is to accurately and completely reconcile medications across the continuum of care so that a process exists for comparing the patient's current medications with those ordered for the patient while under the care of the hospital. Several studies have shown that pharmacist-acquired medication histories are more accurate and contain fewer medical errors, thereby promoting patient safety.

Methodology: Patients are interviewed 24-48 hours after they have been admitted. Home medications (including prescription, over-the-counter, vitamins, herbals, and study drugs) and allergy histories are obtained from the patient and documented on a standardized medication reconciliation form. The pharmacist evaluates the medication list against the original medication list obtained by the nurse or physician for any discrepancies, including potential errors (wrong drug, dose, frequency, or route), omissions, drug interactions, therapeutic duplications, and drug selection. Any discrepancies noted will be communicated with the admitting physician. All medication interventions will be then assessed for their potential to cause patient harm.

Results:

Conclusions:

Presentation Objective: Describe the Joint Commission's National Patient Safety relating to obtaining medication histories from patients and reconciling medications across the continuum of care.

Identify and explain the potential for pharmacists to positively impact patient care. **Self-Assessment:** How can you, as a pharmacist, positively impact patient care and improve patient safety at your institution relating to medication reconciliation?

9:40

OLY1

MUS

ABSTRACT REPRODUCTION FORM

EVALUATION OF SCHIZOPHRENIC, SCHIZOAFFECTIVE, AND BIPOLAR PATIENTS WITH EXPOSURE TO ABUSE AND ITS EFFECT ON TREATMENT
Nancy Demian, Jose A. Rey, Angela S. Garcia
Nova Southeastern University - Fort Lauderdale, FL

Purpose/Background: Many patients with a DSM-IV diagnosis of bipolar, schizophrenia, or schizoaffective disorder have a history of sexual and/or physical abuse. Guidelines for appropriate pharmacotherapy and implementation of psychotherapy in this subpopulation are non-existent; having this type of information available to psychologists and psychiatrists may improve patient outcomes and decrease re-hospitalization. Pharmacists will have a reference tool in order to reduce the incidence of polypharmacy and potential adverse events, as well as improving efficacy and outcomes for patients with optimized drug therapy recommendations. Identifying and utilizing the most efficacious strategies to manage underlying issues of abuse within this subpopulation may improve overall therapeutic outcomes with the lowest potential for adverse events.

Methodology: For the control and experimental groups, documentation of monthly brief psychiatric rating scale scores, the number of psychotropic medications along with daily dosages, length of pharmacotherapy and class of agents will be included. Documentation of cognitive readiness for individual psychotherapy and group activities will be utilized to further assess patient's progress towards therapeutic goals. Additionally, agents used for PRN interventions will be assessed for their impact on clinical outcomes.

Results: Pending

Conclusions: Pending

Presentation Objective: To determine if sexual and/or physical abuse contributes to resistance patterns for efficacy of pharmacotherapy, and if either type of abuse shows dominance for this interference. We hope to identify positive trends of influence from psychotherapeutic intervention. **Self-Assessment:** Is sexual abuse a more prominent contributor to resistance of pharmacotherapy than physical abuse in schizophrenic patients?

9:40

OLY 2

PSY

ABSTRACT REPRODUCTION FORM

ATTITUDES AND OPINIONS OF PHARMACY FACULTY AND STUDENT PHARMACISTS REGARDING THE USE AND IMPACT OF SOCIAL NETWORKING WEBSITES
Joshua W. Fleming, Steven H. Fuller, Robert Cisneros, Kimberly P. Lewis
Campbell University School Of Pharmacy - Buies Creek, NC

Purpose/Background: The purpose of this project is to compare the differences in attitudes and opinions of pharmacy faculty and student pharmacists regarding the impact of social networking websites on admissions, disciplinary action, and residency positions.

Methodology: A validated, anonymous survey will be distributed electronically via SurveyMonkey to all faculty and students at selected colleges/schools of the pharmacy in the Southeastern area. The survey will be administered in the skip question method (whereby questions that do not apply to a particular individual will be skipped), and potential participants will be given 4 weeks to complete the survey. Upon completion of data collection, data will be analyzed to determine what, if any, differences in attitudes exist between faculty and student pharmacists.

Results: Data collection is in process and results will be presented at conference.

Conclusions: Final conclusions will be presented at conference.

Presentation Objective: Increase awareness of potential issues with social networking websites on the profession of pharmacy. **Self-Assessment:** What are some of the concerns for pharmacists/student pharmacists regarding the use of social networking websites?

9:40

PARTH 1

ADM

ABSTRACT REPRODUCTION FORM

EVALUATION OF PATIENT BARRIERS TO ATTENDING A GROUP HYPERLIPIDEMIA CLINIC.
Jamie Jurkiewicz Cavanaugh, Debra W. Kemp, Catherine Woodard, Emily Heritag
Durham VA Medical Center - Durham, NC

Purpose/Background: Group Medical Visits (GMVs) have been reported to be an effective model to achieve disease state goals in patients with chronic disease states with high rates of patient satisfaction. Attendance to this type of appointment has been particularly low in the hyperlipidemia focused GMV at the Durham VA Medical Center and the Greenville Community Based Outpatient Clinic (CBOC). The purpose of this study is to identify potential barriers for veterans in attending GMVs focused on hyperlipidemia.

Methodology: This study has been approved by the local Institutional Review Board. The inception cohort was determined by a computer-generated list of patients with an invitation to the hyperlipidemia focused GMV at the Durham VA Medical Center or Greenville CBOC between January 2010 and June 2010. Patients that did not attend were called to complete a telephone based questionnaire. The questionnaire addressed travel time, parking, length of appointment, appointment time, patient education, comfort sharing health information, and method of recruitment (list versus provider referral). The participant responses will be analyzed to identify potential reasons for low attendance.

Results:

Conclusions:

Presentation Objective: Identify patient barriers to attending the hyperlipidemia focused GMV at the Durham VA Medical Center and the Greenville CBOC. **Self-Assessment:** What is one patient barrier to attending a hyperlipidemia focused GMV at the Durham VA Medical Center and the Greenville CBOC?

9:40

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

IMPACT OF PHARMACIST NOTIFICATION OF HEPARIN INDUCED PLATELET ANTIBODIES RESULTS

Caity Bowers; Catherine Pierce; Amy Kendrick; Peter Morris; Marc Reichert
Wake Forest University Baptist Medical Center - PGY1 - Winston-Salem, NC

Purpose/Background: Heparin induced thrombocytopenia (HIT) is a life threatening disorder which can occur in patients exposed to unfractionated or low molecular weight heparin. An institutional protocol for the management of HIT utilizes the 4Ts score and a heparin induced platelet antibodies (HIPA) test to guide clinicians through criteria for the diagnosis and treatment of HIT. In a previous study performed at our institution, it was identified that a delay in response to HIPA test results by clinicians may exist.

Methodology: In an attempt to improve the management of HIT, pharmacists notified the prescriber of HIPA results and associated recommendations. The primary objective of this study is to assess the impact of pharmacist notification on the management of HIT. Patients were identified using a computer generated report of HIPA orders pre and post notification arms. Inclusion criteria were patients e 18 years old with suspected HIT and a HIPA test. Patients were excluded if treated with argatroban or fondaparinux for indications other than HIT. The primary outcome is the number of patients who had argatroban or fondaparinux discontinued when HIPA results returned, and the time between HIPA results and this discontinuation.

Results:

Conclusions:

Presentation Objective: To review the impact of pharmacist notification of HIPA results on the management of HIT. **Self-Assessment:** Why would a delay in response to a HIPA result be detrimental?

10:20

Room A

CCM

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF A PHARMACIST DRIVEN SEVERE SEPSIS 24-HOUR MANAGEMENT BUNDLE IN THE INTENSIVE CARE UNIT

Lisa Gance, Heidi Clarke
Baptist Hospital Of Miami - Miami, FL

Purpose/Background: In the United States, severe sepsis is the leading cause of death in non-cardiac intensive care units (ICUs) and nearly one-third of all 750,000 new cases each year are fatal. There is growing evidence supporting the timely implementation of the 6-hr resuscitation and 24-hr management bundles which are collectively known as the severe sepsis bundles. The purpose of this study is to evaluate outcomes in ICU patients with severe sepsis or septic shock following implementation of a pharmacist driven 24-hour management bundle.

Methodology: Phase I will consist of a retrospective chart review of 30 severe sepsis/septic shock patients from April 1st 2009 to April 1st 2010. Phase II will consist of a prospective review of severe sepsis/septic shock patients from January 3rd 2011 to March 25th 2011 where all four components of the 24-hr bundle will be evaluated by the clinical pharmacist. The primary objective includes assessing mortality before and after implementation of the pharmacist driven 24-hr bundle. Secondary objectives include assessing patient outcomes, determining compliance with components of the 6-hour and 24-hour bundles, and assessing differences in bundle compliance based on where the patient was first diagnosed (emergency room versus floor).

Results:

Conclusions:

Presentation Objective: Recognize the utility of early pharmacist notification of a severe sepsis or septic shock patient in order to increase compliance with the 24-hour management bundle **Self-Assessment:** The severe sepsis 24-hour management bundle consists of which therapy goal(s)?

10:20

Room B

CCM

ABSTRACT REPRODUCTION FORM

EFFICIENCY OF A WEIGHT-BASED VANCOMYCIN DOSING NOMOGRAM IN CRITICALLY ILL ADULTS

Shimaa Ghonim, Julia Logan, Samuel Borgert, Aimée Leclaire
Shands Teaching Hospital At UF - Gainesville, FL

Purpose/Background: While the Detroit Receiving Hospital nomogram was available to prescribers at Shands at the University of Florida (SUF), many initiate vancomycin at one gram intravenously every twelve hours without consideration of patient-specific factors. Consequently, several dosage adjustments are often necessary to achieve target vancomycin trough concentrations. Consistent with the Infectious Disease Society of America and American Society of Health-System Pharmacy consensus guideline, a vancomycin nomogram including weight-based loading and maintenance doses targeting an initial trough of 15 mcg/mL was developed and implemented in our intensive care units (ICU). This study will compare the efficiency of the SUF vancomycin nomogram compared to conventional prescriber selected dosing practices in achieving target vancomycin trough concentration.

Methodology: A list of patients that received vancomycin between May 24 and October 31, 2010 was generated. Nomogram and physician practices will be compared for the primary endpoint, time to goal vancomycin trough. Secondary endpoint measures include incidences of first vancomycin level measuring therapeutic and nephrotoxicity as defined by the RIFLE criteria. Patients age 18 years or older in an ICU are included. Exclusion criteria include dialysis, vancomycin for perioperative or procedural reasons, vancomycin trough measured earlier than prior to the 3rd dose or never obtained, and vancomycin regimen empirically changed prior to obtaining initial trough.

Results:

Conclusions:

Presentation Objective: Discuss current vancomycin dosing and monitoring recommendations and current SUF practice and analyze data comparing time to goal troughs with each. **Self-Assessment:** Is weight-based vancomycin dosing more efficient at reaching goal troughs early in therapy?

10:20

Room C

ID

ABSTRACT REPRODUCTION FORM

RETROSPECTIVE COMPARISON OF ANTIBIOTICS PRESCRIBED BY ED AND ADMITTING/CONSULTING PRACTITIONERS IN THE TREATMENT OF CAP

Kenric Ware, Erica Merritt, Michael Thomas
St. Joseph's/Candler Health Systems - Savannah, GA

Purpose/Background: This study is designed to investigate the extent of congruency that exists between the empiric antibiotic regimens begun in the emergency department (ED) and the initial regimen ordered by the admitting or consulting practitioners. The expectation is that our findings will serve as vital components of the emerging antibiotic stewardship efforts.

Methodology: Patients will be selected based upon ICD-9 codes 480-488, and retrospectively analyzed from November 2009-March 2010. The electronic medical record department will be consulted to obtain various reports including history and physical, consults, operation notes, discharge summaries to allow for in depth analysis of the individual patients. This study will encompass only empiric antibiotic regimens prescribed by ED practitioners and admitting/consulting practitioners.

Results:

Conclusions:

Presentation Objective: Assess the consistency of prescribing practices among practitioners in the ED and admitting/consulting practitioners. **Self-Assessment:** What rationales exist for why patients weren't continued on the same antibiotic therapy that begun in the ED?

10:20

Room D

ID

ABSTRACT REPRODUCTION FORM

VANCOMYCIN DOSING IN THE OBESE POPULATION: COMPARING OUTCOMES OF A PROSPECTIVE PHARMACOKINETIC MONITORING PROGRAM

Brittany Autry, B. Wright, R. Karwa, A. Chung, C. Durant, C.A. Bodet
Mobile Infirmary Medical Center - Mobile, AL

Purpose/Background: Various studies have revealed that obese patients prescribed vancomycin are consistently empirically under-dosed due to lack of utilization of patient specific pharmacokinetics, the erroneous use of ideal body weight (IBW) instead of total body weight (TBW) for weight based dosing, and the increased renal clearance of vancomycin in this population.

Methodology: This study will be a single center, prospective, observational study with a completed retrospective cohort for comparison. For inclusion, patients will need to be receiving vancomycin therapy and satisfy a body mass index (BMI) greater than or equal to 30 kg/m² or 110kg when a height has not been recorded. Patients will be excluded if they are receiving dialysis, are on a surgical service, or are pregnant or have had given birth on current hospital stay. One time doses or patients not deemed at steady state at termination of vancomycin therapy will also be excluded from the study. Recommended peak and trough levels will be drawn at steady state to further determine patient specific pharmacokinetic parameters through pharmacokinetic calculations.

Results:

Conclusions:

Presentation Objective: The primary objective of this study is to prospectively evaluate vancomycin pharmacokinetics in obese patients with the goal of describing optimal dosing strategies in this population. **Self-Assessment:** Why is it recommended that vancomycin trough levels be maintained ≥ 10 mg/L?

10:20

Room G

CLPK

ABSTRACT REPRODUCTION FORM

PHARMACIST-INITIATED PROTOCOL FOR VENOUS THROMBOEMBOLISM (VTE) PROPHYLAXIS IN HOSPITALIZED PATIENTS WITH CANCER

Karen Miller
DeKalb Medical Center - Decatur, GA

Purpose/Background: Venous thromboembolism (VTE) is a complication often associated with immobility during hospitalization. Specific patient populations, such as hospitalized patients with cancer, are at increased risk of developing VTE as a result of the hypercoagulable state of malignancy and/or its treatment such as surgical intervention, central venous lines, and chemotherapy. Current guidelines state that hospitalized patients with cancer should receive anticoagulation therapy in the absence of contraindications. Despite guidelines supporting its utilization in the oncology population, underuse of VTE prophylaxis persists. This study is conducted to evaluate the use and appropriateness of VTE prophylaxis in hospitalized cancer patients and to develop a protocol that will allow for pharmacist-initiated VTE prophylaxis in a population that is at increased risk of morbidity and mortality from VTE.

Methodology: A prospective medication use evaluation (MUE) will be performed to evaluate the utilization of VTE prophylaxis in fifty adult patients admitted between November 2010 and January 2011 with cancer or a clinical suspicion of cancer. Once collected, a protocol will be designed and implemented allowing the clinical pharmacist to initiate DVT prophylaxis for cancer patients in the absence of contraindications outlined in the protocol. Following protocol implementation, a follow-up MUE will be conducted and the results will be compared to the initial MUE to evaluate the outcome of the pharmacist-initiated protocol.

Results:

Conclusions:

Presentation Objective: Describe the impact of using a pharmacist-initiated VTE prophylaxis protocol in patients with cancer. **Self-Assessment:** What do the guidelines recommend for VTE prophylaxis in the oncology population?

10:20

Room H

ONC

ABSTRACT REPRODUCTION FORM

ASSESSING RISK OF QT PROLONGATION WITH ANTIPSYCHOTICS IN HOSPITALIZED PATIENTS

Marquita Bradshaw, Brian Buck, Stephanie V. Phan
Phoebe Putney Memorial Hospital - Albany, GA

Purpose/Background: The most common cause of withdrawal or restriction of approved medications marketed within the past decade is prolongation of the QT interval. The QT interval is used during drug development and by clinicians as a surrogate marker for proarrhythmia risk. When combined with other medications associated with QT prolongation, the risk of drug-induced proarrhythmias increases. An email surveying Voluntary Hospitals of America pharmacy council members in Georgia was circulated inquiring about existing QT prolongation protocols. The purpose of this study is to evaluate the appropriateness of overriding medication alerts of QT prolongation involving antipsychotics in addition to another medication which also prolongs the QT interval.

Methodology: This retrospective chart review was approved by the Institutional Review Board. Patients were greater than or equal to eighteen years of age who were on or had orders to be placed on two or more drugs creating a drug-drug interaction alert during transcription by a pharmacist, one of which was an antipsychotic. Patients were excluded if they were prescribed duplicate therapy which also generated a QT prolongation alert, or if modification of an existing order generated a duplicate alert. Patient data collected included age, gender, cardiovascular conditions, drug-drug interaction, serum potassium, serum magnesium, heart rate, and presence of baseline electrocardiograph. Retrospective data collected will be analyzed to determine the appropriateness of overriding medication alerts.

Results: Pending

Conclusions: Pending

Presentation Objective: Identify the appropriateness of overriding medication alerts of QT prolongation involving antipsychotics. **Self-Assessment:** What risk factors may contribute to antipsychotic-induced QTc prolongation?

10:20

Room I

IM

ABSTRACT REPRODUCTION FORM

RAPID DOSE ESCALATION OF INTRAVENOUS PROSTACYCLINS IN PATIENTS WITH PULMONARY HYPERTENSION: A RETROSPECTIVE CASE SERIES

Juwon Yim, Patricia Louzon, Phillip Biddlecome
Florida Hospital - Orlando, FL

Purpose/Background: Epoprostenol and treprostinil are prostacyclin analogs approved to be administered by intravenous infusion for the treatment of pulmonary hypertension. In pulmonary hypertension patients who are critically ill, rapid dose escalation may help patients benefit from therapy earlier by achieving a therapeutic dose. However, it remains unknown how fast prostacyclins can be safely titrated. The purpose of this study is to describe how aggressively the rate of intravenous prostacyclin infusion can be increased while minimizing adverse events.

Methodology: A retrospective chart review was conducted of patients who were treated with either intravenous epoprostenol or treprostinil for pulmonary hypertension at Florida Hospital between October 1, 2008 and December 1, 2010. Patients were classified by the prostacyclin agent administered. Daily escalation of intravenous prostacyclin, baseline characteristics, adverse effects, and efficacy data were collected.

Results:

Conclusions:

Presentation Objective: Describe rapid titration of intravenous prostacyclin in pulmonary hypertension patients. **Self-Assessment:** What are common adverse effects that may limit rapid dose titration of intravenous prostacyclins?

10:20

Room J

IM

ABSTRACT REPRODUCTION FORM

EVALUATION OF WARFARIN PROTOCOL FOR THE PREVENTION OF VENOUS THROMBOEMBOLISM AFTER ORTHOPEDIC SURGERY IN A COMMUNITY HOSPITAL

Xuan Seepolmuang, Catherine Lewis, Jenna Huggins
Wakemed Health & Hospitals - Raleigh, NC

Purpose/Background: Evaluate the efficacy and safety of a warfarin dosing nomogram compared to usual care in preventing venous thromboembolism (VTE) following orthopedic surgery.

Methodology: Retrospective chart review of patients who received warfarin for VTE prophylaxis following an orthopedic procedure and who had a 3 day total length of stay between May 2009 and May 2010. Warfarin was initiated based on the orthopedic warfarin nomogram or usual care on the evening after surgery. Primary outcome was change in international normalized ratio (INR) from baseline until therapeutic or until discharge, whichever was earlier. Primary safety endpoints included Vitamin K usage, INR ≥ 4 , bleeding or thrombosis, and readmission for bleeding or thrombosis within 3 months of discharge. Secondary outcomes were time to therapeutic INR or INR at discharge stratified by length of stay.

Results: 157 patients were included with 119 patients receiving warfarin based on the nomogram and 38 receiving warfarin based on usual care. Efficacy results are pending. Preliminary safety results indicate bleeding rate may be higher in the usual care cohort compared to the nomogram cohort; however, more patients in the nomogram cohort may experience readmission within 3 months due to bleeding or thrombosis.

Conclusions:

Presentation Objective: Determine the efficacy and safety of the warfarin dosing nomogram currently in place for orthopedic patients as compared to usual care. **Self-Assessment:** Is the current warfarin dosing nomogram effective and safe for prevention of VTE in patients following orthopedic surgery?

10:20

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

ASSESSMENT OF PATIENT PERCEPTIONS CONCERNING A COMMUNITY PHARMACY-BASED ANTICOAGULATION CLINIC

Jennifer Waitzman; Debbie Pruss; Macary Marciniak; Stefanie Ferreri
University Of North Carolina, School Of Pharmacy - Chapel Hill, NC

Purpose/Background: Pharmacists are becoming increasingly involved in anticoagulation monitoring services within physician offices and clinics. Community pharmacies are also equipped to provide such services and are easily accessible to patients. However, these services are not well established within community pharmacies. This study will assess patient perceptions of a North Carolina community pharmacy-based anticoagulation clinic.

Methodology: This study is a survey of patients 18 years of age and older, who have filled a prescription for warfarin, in one of five Raleigh area community pharmacies, between May 1, 2010 and October 31, 2010. A two page survey, along with a self addressed stamped envelope, was mailed to the identified patients. Informed consent was obtained from voluntary participation in the study. The survey inquired about details of current anticoagulation monitoring services, interest in utilizing a local community pharmacy for this service, and confidence in a pharmacist-managed program. An incentive was offered to encourage participation. Surveys were returned to the principle investigator. Results are being analyzed using descriptive statistics.

Results: Surveys were distributed to 330 patients and 26% were returned. Data analysis is underway.

Conclusions: The resultant information will be used to determine if anticoagulation monitoring services should be implemented within a community pharmacy.

Presentation Objective: To determine if patients would be interested in having their anticoagulation monitoring managed in a community pharmacy setting. **Self-Assessment:** Are patients interested in having the community pharmacist manage their anticoagulation monitoring?

10:20

OLY 2

CP

ABSTRACT REPRODUCTION FORM

POST IMPLEMENTATION ASSESSMENT OF A SMART PUMP LIBRARY

Brian Masters, Malia Manning, Clint Shadinger, Shea Polk, T. Aaron Jones
University Of Alabama Hospital - Birmingham - Birmingham, AL

Purpose/Background: Prior to implementation of Symbiq® smart pumps at UAB Hospital the medication library was built with multidisciplinary input. Limits were determined for each medication entry within the individual clinical care areas (CCAs). This post implementation project was designed to identify and implement improvements within the library in order to enhance patient safety related to medication infusion with smart pumps.

Methodology: From October 14th to November 14th, 2010 all edits and overrides of upper soft limits were reviewed. Medication entries meeting defined criteria for review were evaluated to determine the reason for infusion rate entries exceeding the upper soft limit. Medication entries with changes were evaluated 30 days post implementation.

Results: During the initial evaluation period 5,591 edits and overrides of soft upper limits involving 93 medication entries were documented. Review of the edits/overrides identified 23 medication entries which met criteria for further review. Changes to 15 medication entries (i.e., aminoglycosides, intravenous immune globulin, piperacillin/tazobactam, vancomycin) were made to enhance pump programming safety. Results are pending for the follow-up evaluation.

Conclusions:

Presentation Objective: Determine the utility of a post implementation review of library limits. **Self-Assessment:** Can clinically significant dosing errors be reduced through a smart pump library assessment?

10:20

PARTH 1

PI

ABSTRACT REPRODUCTION FORM

EFFICACY, TOLERABILITY, AND COST AVOIDANCE FOLLOWING A CONVERSION FROM SEVELAMER TO LANTHANUM IN CHRONIC KIDNEY DISEASE

Laura Bonnette, Dorothy Jenrette, Ashley Donato
Ralph H. Johnson Va Medical Center - Charleston, SC

Purpose/Background: The purpose of this study is to evaluate the efficacy, tolerability, and cost avoidance of a conversion from sevelamer carbonate to lanthanum carbonate in patients with chronic or end stage kidney disease. The VA National Formulary includes lanthanum carbonate and sevelamer carbonate, both of which are approved phosphate binders for the management of hyperphosphatemia in patients with CKD. The Pharmacy and Therapeutics Committee approved the conversion of sevelamer carbonate to lanthanum carbonate. It was anticipated that the conversion would result in substantial cost savings for the healthcare system, with similar efficacy and safety.

Methodology: A retrospective chart review was performed for patients with chronic or end stage renal disease who were converted from sevelamer carbonate to lanthanum carbonate between October 1 and December 31, 2010. To evaluate efficacy, we determined whether there was a change in mean phosphorus, calcium, albumin, or PTH 30-90 days after conversion. Additionally, we evaluated the lanthanum daily dosage at the time of conversion and 90 days after conversion to determine the accuracy of the recommended dosage equivalencies. We further delineated the accuracy of the recommended dosage equivalencies by subgroups. A descriptive analysis of reported adverse events after conversion is provided to assess tolerability. We annualized cost avoidance by comparing the baseline cost of sevelamer to the cost of lanthanum 90 days after conversion.

Results:

Conclusions:

Presentation Objective: List the potential consequences of the therapeutic conversion from sevelamer carbonate to lanthanum carbonate. **Self-Assessment:** What are common outcome measures in patients receiving lanthanum carbonate?

10:20

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

EXAMINATION OF NOSOCOMIAL INFECTIOUS COMPLICATIONS AND RELATED OUTCOMES DURING EXTRACORPREAL MEMBRANE OXYGENATION
Kristin Griffin, Cathy Pierce, Thomas Prankoff, Scott Copus, Marc Reichert
Wake Forest University Baptist Medical Center - Critical Care - Winston-Salem, NC

SAFETY AND EFFICACY OF ANTIPLATELET THERAPY GUIDED BY RESISTANCE TESTING IN PATIENTS UNDERGOING NEUROENDOVASCULAR PROCEDURES
Jerah Nordeen, Alden Patel, Robert Darracott, Ricardo Hanel, Gretchen Johns
Mayo Clinic In Florida - Jacksonville, FL

Purpose/Background: During ECMO patients are at an increased risk of developing nosocomial infections. There is little data that suggests the appropriate duration of antibiotics that should be used to treat these infections. The primary objective of this study is to identify antibiotic treatment failures after appropriate prescriber determined duration of antibiotics. Secondary objectives include identification of risk factors for developing an infection while on ECMO, predominant organisms isolated, and the differences in these endpoints in pediatrics versus adults, venovenous versus venoarterial ECMO, and renal replacement modalities.

Purpose/Background: Thromboembolic events present a significant risk during the intraoperative and postoperative period following neuroendovascular therapy. Antiplatelet medications remain the principal agents for prevention of thromboembolic complications. Platelet function testing has emerged as a valuable identification tool in the prevention of complications surrounding cerebrovascular procedures. Therefore, assessment of safety and efficacy of platelet function testing and antiplatelet therapy may be beneficial in developing standards of management in neuroendovascular procedures. The purpose of this study is to assess whether current practices, involving intensified antiplatelet therapy in resistant patients, provide adequate inhibition for neuroendovascular procedures, and to determine safety and efficacy through evaluation of outcomes.

Methodology: This is an IRB-approved, retrospective, cohort study. Pediatric and adult patients who received ECMO from October 2002 through July 2010 were included in the study. Patients were excluded if they received ECMO for less than 72 hours or were less than 30 days of age. Positive blood and respiratory cultures that occurred at least 24 hours after the initiation of ECMO and ending 48 hours after ECMO was discontinued were recorded. Documented clearance of infection was recorded if after appropriate treatment duration with adequate antibiotics, previous positive cultures returned with no growth. The primary outcome was documented clearance of a nosocomial infection while on ECMO. Secondary outcomes included risk factors associated with developing nosocomial infections, predominant site of infection, and organism isolated.

Methodology: This study will be conducted as an observational, retrospective review of patients at Mayo Clinic in Florida who underwent neuroendovascular procedures from October 1, 2009 to September 30, 2010. The primary outcome is to determine the safety of antiplatelet therapy in patients who underwent neuroendovascular procedures and who had resistant and non-resistant patterns on platelet function tests. Secondary objectives include: comparing incidence of hemorrhagic complications and ischemic events related to neuroendovascular procedures in patients resistant and non-resistant to antiplatelet therapy, and to determine the correlation between measured antiplatelet resistance and genetic testing in patients resistant to antiplatelet therapy.

Results:

Results:

Conclusions:

Conclusions:

Presentation Objective: Identify risk factors for developing a nosocomial infection while on ECMO. **Self-Assessment:** Do patients on ECMO need a longer duration of antibiotics for treatment of blood and respiratory infections?

Presentation Objective: Identify appropriate initial therapy for antiplatelet loading in neuroendovascular patients. **Self-Assessment:** What percentage of patients suffered an adverse event related to anticoagulation loading prior to neuroendovascular procedures?

10:40

Room A

CCM

10:40

Room B

CCM

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

AZTREONAM EMPIRIC THERAPY FOR FEBRILE NEUTROPENIA IN PATIENTS WITH PENICILLIN ALLERGY
B McCullough, L Wiggins, A Richards, K Klinker, J Wingard, J Hiemenz
Shands Teaching Hospital At UF - Gainesville, FL

CLINICAL AND FINANCIAL IMPACT OF IMPLEMENTING PNA FISH ON POSITIVE BLOOD CULTURES IN A COMMUNITY-BASED HEALTH SYSTEM
Bruce M. Jones, Geneen M. Gibson, Joseph Crosby, Michael Ibuoye
St. Joseph's/Candler Health Systems - Savannah, GA

Purpose/Background: Beta-lactam antibiotics are the mainstay of empiric therapy for febrile neutropenia. However, many patients report penicillin allergy and may not be eligible to receive beta-lactams. Aztreonam may benefit these patients due to a lack of cross-hypersensitivity in penicillin-allergic patients. To date, no studies have investigated aztreonam as empiric monotherapy in patients with febrile neutropenia. This study will evaluate efficacy and safety of aztreonam as monotherapy for febrile neutropenia in an academic medical center.

Purpose/Background: Peptide Nucleic Acid Fluorescent In-Situ Hybridization (PNA FISH) was developed as a way to identify Staphylococcus aureus or coagulase-negative staphylococci directly from a positive blood culture containing gram-positive cocci in clusters, Enterococcus faecalis or other enterococci from a blood culture containing gram-positive cocci in pairs and chains, and Candida albicans or Candida glabrata from a blood culture containing yeast. PNA FISH provides rapid identification of isolates on smears made directly from positive blood cultures. The purpose of this study is to assess the advantage of rapid organism identification by PNA FISH. Implementation could lead to effective stewardship of antimicrobials, including appropriate antimicrobial selection and duration of therapy; therefore improving the practice of infection control specifically dealing with patients on contact isolation. Finally, the study will assess the cost of PNA FISH compared with the benefits received by patients.

Methodology: Retrospective chart review evaluated subjects receiving aztreonam admitted from October 1, 2007 to September 30, 2010. Inclusion criteria: Temperature greater than 38.3°C or greater than 38°C for greater than one hour with absolute neutrophil count (ANC) less than 500 cells/mm³ or less than 1000 cells/mm³ with anticipation of ANC below 500 cells/mm³. Primary outcomes are clinical and microbiological success of aztreonam monotherapy. Secondary analysis includes: need for concomitant antimicrobial therapy, development of adverse drug events, antimicrobial switch due to identification of aztreonam sensitive organisms, aztreonam prescribed for subsequent (not first) fever, and aztreonam prescribed in combination with other antibacterial agents.

Methodology: Retrospective and prospective observational chart review from January 1, 2010 through April 1, 2011. Eligible patients are those at least 18 years of age with a first positive blood culture that is sent for gram stain containing gram-positive cocci in clusters, gram-positive cocci in pairs and chains, or yeast that turns positive Monday through Friday. Outcomes assessed will be time to first dose of antimicrobial therapy, antimicrobial utilization, hospital length of stay, and average costs.

Results: Two hundred ninety patients with 415 admissions were selected. Of 270 patient admissions screened, eleven met inclusion criteria for primary analysis. Twenty six were included in secondary analysis. Most patients were excluded for ANC greater than 500 or neutropenia without fever.

Results:

Conclusions:

Conclusions:

Presentation Objective: Review outcomes in patients receiving aztreonam monotherapy for febrile neutropenia. **Self-Assessment:** Is aztreonam adequate empiric monotherapy for febrile neutropenia in patients with penicillin allergy?

Presentation Objective: Describe PNA FISH and examine the benefits of using the test on positive blood cultures. **Self-Assessment:** What is the most common group of organisms isolated from blood cultures?

10:40

Room C

ID

10:40

Room D

ID

ABSTRACT REPRODUCTION FORM

VANCOMYCIN LEVELS: PERIPHERAL VS. CENTRAL LAB DRAWS
Wes Gilliam
Holston Valley Medical Center - Kingsport, TN

Purpose/Background: Design and implement a clinical study to compare vancomycin drug levels obtained both from a peripheral venipuncture and a peripheral inserted central catheter (PICC). Current thought is when vancomycin is given through the PICC line that drawing the drug levels through this line will lead to higher obtained levels. This is thought to be due to an amount of drug remaining in the line. Therefore, drug levels have traditionally been drawn from a peripheral venipuncture. There has only been one previously published study looking at these lab collection techniques for vancomycin. That previous study was testing only a few pediatric patients. This current study is looking at several adult patients.

Methodology: Eligible participants are those e18 who have a PICC line and have had the hospital pharmacy consulted to dose and monitor their vancomycin therapy. Enrolled patients have both peak and trough values monitored, each drawn from both a peripheral vein and from a PICC line within five minutes of each other. The levels are randomized by which will be drawn first, the PICC or the peripheral draw.

Results: 44 patients will be included in this IRB-approved study. Patients are currently being enrolled and data collected.

Conclusions: Pending

Presentation Objective: List potential problems and benefits to drawing vancomycin drug levels through peripherally inserted central catheters versus drawing them through peripheral venipuncture. **Self-Assessment:** Do vancomycin drug levels differ if drawn from a PICC line as compared to peripheral venipuncture?

10:40

Room G

CLPK

ABSTRACT REPRODUCTION FORM

IMPACT OF PALIFERMIN FOR MUCOSITIS PROPHYLAXIS IN PATIENTS WITH MULTIPLE MYELOMA RECEIVING HEMATOPOIETIC STEM CELL TRANSPLANT
Amber Ng, Donald Hutcherson, Minal Surati, Nicole Wilson, Katherine Shah
Emory University Hospital Oncology - Atlanta, GA

Purpose/Background: Multiple myeloma (MM) is an incurable malignancy in which plasma cells proliferate and accumulate in the bone marrow. Treatment commonly involves melphalan-containing conditioning regimens followed by autologous hematopoietic stem cell transplant (autoSCT). Melphalan is frequently associated with mucositis which is characterized by painful inflammation and ulcerations of the mucous membranes lining the gastrointestinal tract. Palifermin, a keratinocyte growth factor, is FDA indicated to reduce the incidence and duration of severe mucositis in patients with hematologic malignancies receiving hematopoietic stem cell transplant. Since 2005, the standard of care at Emory University Hospital has been to administer palifermin to patients receiving melphalan for autoSCT.

Methodology: This retrospective study will evaluate adult MM patients who have received melphalan 200 mg/m² at Emory University Hospital. A total of 200 patients will be evaluated (100 patients who have received palifermin 60 mcg/kg/day for three consecutive days prior to and following autoSCT and 100 control patients). Patients will be identified through the use of an Institutional Review Board approved stem cell transplant database. Data collection will include age, sex, height, weight, BSA, BMI, estimated creatinine clearance, dose of melphalan, maximum grade of mucositis, length of hospital stay, frequency of rash, time to first fever, frequency of antibiotic use, and bacteremias.

Results:

Conclusions:

Presentation Objective: To evaluate the impact of palifermin for mucositis prophylaxis in patients with multiple myeloma receiving hematopoietic stem cell transplant **Self-Assessment:** Is palifermin effective for mucositis prophylaxis in patients with multiple myeloma receiving hematopoietic stem cell transplant?

10:40

Room H

ONC

ABSTRACT REPRODUCTION FORM

DEVELOPMENT OF MEDICATION THERAPY MANAGEMENT SERVICES IN A HOSPITAL OUTPATIENT PHARMACY
Deborah Fernandez, Janelle Berg, Estela Trimino, Fernando Zaldivar
Mercy Hospital - Miami, FL

Purpose/Background: Non-compliance with medication therapy has been linked to 10% of hospital admissions and 125,000 deaths each year. In addition, 17% of patients experience an adverse drug event after discharge, resulting in a 5% readmission rate. Medication therapy management (MTM) models have shown a decrease in hospital admissions and drug related events. Patients with frequent hospital visits were evaluated for MTM services as a tool to enhance patient compliance and reduce hospital readmissions

Methodology: After obtaining IRB approval, the daily census was reviewed to identify patients with multiple readmissions. The medication reconciliation form was evaluated and completed if necessary. A pharmacist intervened and provided recommendations for appropriate therapy throughout the hospital stay, as well as discharge counseling. MTM services were offered at the time of discharge. Upon agreement, a follow-up telephone call was made within 72 hours to schedule an appointment in the outpatient pharmacy. Patient data will be analyzed at the end of the study to assess hospital readmission rates.

Results:

Conclusions:

Presentation Objective: Present the development of a MTM program in a hospital outpatient pharmacy **Self-Assessment:** Did the MTM program led to a decrease in hospital readmissions?

10:40

Room I

IM

ABSTRACT REPRODUCTION FORM

CLINICAL EXPERIENCE WITH RANOLAZINE IN A VETERAN POPULATION WITH STABLE ANGINA PECTORIS
Don Reeder, Andrew Franck, David Frohnapple, Michael Gillette, Robert Svingos
N.Florida/S. Georgia Va Health System - Gainesville, FL

Purpose/Background: Stable angina pectoris (SAP) remains a major problem in the veteran population. Ranolazine is an anti-anginal that has shown efficacy for SAP when added to conventional therapy. Efficacy has not been studied in veterans or evaluated in addition to conventional anti-anginal therapy. Our study is evaluated the effectiveness of ranolazine, when added to conventional therapies, in veterans with persistent SAP.

Methodology: In this retrospective observational study, patients initiated on ranolazine were identified by prescription records. Medical charts were reviewed for patient demographics, changes in Seattle Angina Questionnaire (SAQ) scores, QTc prolongation, torsades de pointes, cardiovascular events, drug interactions, adverse effects, and rates of discontinuation.

Results: Thirty-five patients were included in the study. After one and three months of ranolazine therapy, SAQ scores were significantly improved when compared to baseline. Changes in QTc interval were not statistically significant (p = 0.32 at one month; p = 0.34 at three months). Ranolazine was discontinued in six patients because of adverse effects. Higher doses of ranolazine were not well tolerated by most patients.

Conclusions: Ranolazine improved angina symptoms as assessed by the SAQ in veterans with persistent SAP concurrently taking conventional anti-anginal therapy. Due to the retrospective nature of our study, larger randomized controlled trials are needed to confirm these findings.

Presentation Objective: To describe our clinical experience with ranolazine in a veteran population with stable angina pectoris taking maximally-tolerated doses of conventional anti-anginal therapy. **Self-Assessment:** Does ranolazine improve angina symptoms in veteran patients taking maximally-tolerated doses of conventional anti-anginal therapy?

10:40

Room J

IM

ABSTRACT REPRODUCTION FORM

SAFETY AND EFFICACY OF HYDROMORPHONE DOSING IN A COMMUNITY HOSPITAL

Elizabeth J. Espinel, Jennifer Moeller, Syeda Kareem
St. Joseph's Hospital - Tampa, FL

Purpose/Background: Pain management has become an important aspect of patient care. The Joint Commission on Accreditation of Hospital Organizations called for the measurement of pain as the fifth vital sign. Consequently, there has been an increasing trend in the use of opioid narcotics. St. Joseph's hospital evaluated the use of narcotics requiring reversal with naloxone. It was noted that several of the cases were in opiate naïve patients receiving hydromorphone at high doses. In response, an automatic dose reduction for doses greater than or equal to 1mg of parenteral hydromorphone was initiated in patients who are opiate naïve.

Methodology: A retrospective chart review comparing orthopedic post-op patients on parenteral intermittent hydromorphone, before and after instituting the dose lowering initiative. Patients were identified by a hydromorphone usage report. The primary outcome was efficacy of pain relief measured by pain scores using the numeric rating scale. The secondary outcome was safety measured by occurrence of side effects, signs of respiratory depression, and naloxone use. Patients included were 18 years or older undergoing an orthopedic procedure in the year 2010. Chronic pain patients were excluded. Patients responses were measured up to forty-eight hours post-op, or until transition to a dose escalation, oral pain meds, or any other discontinuation of intermittent parenteral hydromorphone therapy.

Results:

Conclusions:

Presentation Objective: Compare the average difference in pain scores and incidence of adverse effects pre and post interchange to determine safety and efficacy of initiating hydromorphone at lower doses. **Self-Assessment:** What are potential barriers encountered when assessing patient's pain?

10:40

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

EVALUATING THE ECONOMIC IMPACT OF A TARGETED MEDICATION INTERVENTION PROGRAM

Sarah Smith, Abby Caplan, Stefanie Ferreri, Macary Marciniak
University Of North Carolina, School Of Pharmacy - Chapel Hill, NC

Purpose/Background: Targeted medication intervention programs are one potential service offered in the spectrum of pharmacist provided medication therapy management (MTM). This study seeks to calculate the return on investment (ROI) for a targeted medication intervention program developed by corporate management of a regional community pharmacy chain.

Methodology: This is a retrospective analysis of documented targeted medication interventions by pharmacists from February 1, 2010 through July 31, 2010. During this time, targeted medication interventions included: proper administration of medications; cost efficacy; drug interactions; appropriate use of OTC products; medication underuse. Interventions were included if they were one of the targeted medication interventions previously mentioned and were accepted or rejected by a provider or patient; interventions were excluded if they were not one of the targeted medication interventions developed by the pharmacy. This study also included a prospective, nine question survey of pharmacists participating in the program. Survey questions examined: pharmacists' experience providing MTM, number of targeted medication interventions submitted, and time to complete an intervention. To determine the economic impact of this program, the ROI to the employer was calculated.

Results: Seven hundred and ninety-seven interventions were analyzed and 38% of pharmacists returned the survey.

Conclusions: This six month study resulted in a negative ROI to the employer of 8%.

Presentation Objective: Identify whether a targeted medication intervention program results in a positive ROI. **Self-Assessment:** Name one expense to consider when calculating the ROI for a targeted medication intervention program.

10:40

OLY 2

CP

ABSTRACT REPRODUCTION FORM

DEVELOPMENT OF A NON-FORMULARY CONSULT MENU AT THE ORLANDO VA MEDICAL CENTER: A PROCESS IMPROVEMENT PROJECT

Ana G. Delgado, Elsaris Riefkohl And Kim Schnacky
Orlando VA Medical Center - Orlando, FL

Purpose/Background: Medications prescribed by Veterans Affairs (VA) clinicians are selected from the National VA Formulary unless a valid justification exists for utilization of a non-formulary agent. To request a non-formulary medication, the clinician enters an electronic non-formulary medication consult for clinical pharmacist review. The purpose of this project is to design a menu for primary care providers that includes customized consult templates for selected high volume non-formulary medications. The templates will include fields for pertinent information, often omitted in the current process, which should streamline the non-formulary review process. It is anticipated that the menus will improve patient care by decreasing the time to consult completion thus decreasing time to patient receipt of medications.

Methodology: Primary care providers and pharmacy staff will complete a survey to identify medications considered ideal for the non-formulary consult menu. A sample of the suggested medications will be chosen for template development. After menu implementation, a survey will be conducted to measure staff satisfaction levels with the menu. Time to consult completion and time to patient receipt of medication will be assessed as markers of performance improvement.

Results:

Conclusions:

Presentation Objective: To describe the process improvement initiative of developing a non-formulary medications consult menu at the Orlando VA Medical Center. **Self-Assessment:** What aspects should be considered if a facility wishes to develop a non-formulary medications consult menu?

10:40

PARTH 1

PI

ABSTRACT REPRODUCTION FORM

EFFICACY, SAFETY AND TOLERABILITY FOLLOWING A CONVERSION OF NIACIN EXTENDED RELEASE TO NIACIN SUSTAINED RELEASE IN VETERANS

Chad W. Lavinghousez, Dorothy Jenrette
Ralph H. Johnson VA Medical Center - Charleston, SC

Purpose/Background: The purpose of this study was to evaluate the efficacy, safety, and tolerability of a conversion from Niaspan® to Slo Niacin® in veteran patients with coronary artery disease (CAD) or diabetes mellitus (DM) and low-density lipoprotein (LDL) less than 100 mg/dL. In August 2010, the Pharmacy and Therapeutics Committee approved an automatic conversion of Niaspan® prescriptions to Slo-Niacin® on a mg per mg basis.

Methodology: This was a medication use evaluation consisting of a prescription database evaluation to identify potentially eligible patients converted from Niaspan® to Slo-Niacin® between September 1, 2010 and November 30, 2010. The study population included patients with CAD or DM enrolled at the Ralph H. Johnson VA Medical Center or outlying clinics with an LDL less than 100 mg/dL in the 24 weeks prior to the conversion date and an alanine aminotransferase (ALT) measured within the 365 days prior to the conversion date. Efficacy was determined by evaluating whether there was a significant difference in the mean LDL 6 - 12 weeks after conversion compared to baseline. Safety was determined by evaluating whether there was significant

Results:

Conclusions:

Presentation Objective: Identify key measures of efficacy, safety, and tolerability following a conversion from Niaspan® to Slo-Niacin®. **Self-Assessment:** Is there a significant difference between Niaspan® and Slo-Niacin® in terms of efficacy, safety, and tolerability?

10:40

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

A MULTI-DISCIPLINARY TEAM APPROACH IN GLUCOSE MANAGEMENT WITHIN A STEP-DOWN INTENSIVE CARE UNIT

Natalie Petersen, Tonya Thomas
St. Thomas Hospital - Nashville, TN

Purpose/Background: A multi-disciplinary team approach is recommended for blood glucose (BG) management among hospitalized patients. Hyperglycemia (BG > 140 mg/dL) and hypoglycemia (BG < 70 mg/dL) can lead to increased mortality, morbidity, and costs. Insulin is an effective agent for immediate hyperglycemic control in hospitalized patients. Guidelines recommend basal-bolus with correctional insulin regimens. A multi-disciplinary team including pharmacists can aid in effective management of insulin usage. In April 2010, Saint Thomas Hospital initiated a multi-disciplinary rounding team. One of the team's goals was to decrease hyperglycemia and achieve BG 70-140 mg/dL. The purpose of this study is to assess a multi-disciplinary rounding team's impact on glucose management among step-down intensive care unit (ICU) patients.

Methodology: A retrospective chart review of 100 patients was conducted to compare glycemic control prior and post implementation of a multidisciplinary rounding team. Eligible participants were patients greater than 18 years of age admitted to the step-down ICU between April to September 2009 (Group A) and April to September 2010 (Group B) who were receiving insulin therapy. Patients receiving continuous insulin infusion, U-500 insulin, or mixed insulin were excluded. Effectiveness was assessed based on comparisons of calculated mean daily BG values for five consecutive days. The number of hypoglycemic episodes and percentage of patients receiving correctional insulin alone versus basal-bolus with correctional insulin were evaluated.

Results:

Conclusions:

Presentation Objective: To evaluate the impact of a multi-disciplinary rounding team on glucose management. **Self-Assessment:** What are the potential benefits of utilizing a multi-disciplinary rounding team for the management of hyperglycemia?

11:00

Room A

CCM

EVALUATING THE USE AND COST-EFFECTIVENESS OF DEXMEDETOMIDINE VS PROPOFOL AND/OR MIDAZOLAM IN CRITICALLY ILL PATIENTS

Kara Lawson And Richard Breeden
Fort Sanders Regional Medical Center - Knoxville, TN

Purpose/Background: Guidelines recommend the use of midazolam, lorazepam and propofol for sedation in mechanically ventilated patients. Although effective, data indicates these may contribute to the development of delirium, which is associated with increased length of stay, healthcare costs and mortality. Precedex (dexmedetomidine) is an alpha-2 agonist FDA-approved for sedation, which studies suggest could serve as a bridge to extubation. Its use is limited due to its lack of clinical data and uncertain cost-effectiveness. The objective of this study is to determine the effect of dexmedetomidine on ventilator days and associated adverse outcomes when compared to midazolam and propofol in a community non-teaching hospital.

Methodology: This study is a retrospective review of preexisting medical records with data recorded without patient identifiers thus exempting it from institutional review board approval. The facility's electronic medical record system was used to identify patients in the critical care units who received dexmedetomidine and/or continuous infusions of midazolam or propofol from September 2009 to September 2010. Thirty-five patients received dexmedetomidine; an equal number of patients were chosen from the midazolam and propofol groups, leading to a total sample size of 105 patients. The following was recorded: age, gender, indication, number of days on the medication, total cost of the medication, number of ventilator days, length of ICU and hospital stay and patient outcome.

Results:

Conclusions:

Presentation Objective: Determine if the use of dexmedetomidine leads to favorable outcomes that warrant an ICU protocol update. **Self-Assessment:** Is dexmedetomidine a cost-effective bridge to extubation deserving of placement in the ICU protocol?

11:00

Room B

CCM

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

AN ANALYSIS OF AMPICILLIN FOR THE TREATMENT OF URINARY TRACT INFECTIONS CAUSED BY VANCOMYCIN-RESISTANT ENTEROCOCCUS

Joseph Shultz, Kenneth Klinker, Samuel Borgert, Reuben Ramphal
Shands Teaching Hospital At UF - Gainesville, FL

Purpose/Background: Vancomycin-resistant enterococci (VRE) have become an important cause of nosocomial urinary tract infections (UTIs), particularly in the critically ill. Limited antibiotics with activity against Enterococcus spp. and scant clinical data supporting their use complicate treatment. In addition, resistance to newer agents, daptomycin and linezolid, has been reported. To preserve anti-VRE agents, Shands at the University of Florida adopted a policy of ampicillin as first line therapy for VRE UTIs regardless of the isolates' reported sensitivity to ampicillin. The pharmacokinetics of ampicillin form the logical basis for its use against resistant VRE urinary isolates. The glomerular filtration and tubular secretion of ampicillin yield urinary concentrations that are many fold higher than the breakpoint of ampicillin resistance (MIC > 16 mcg/mL). Unfortunately, few data exist supporting the efficacy and safety of this treatment regimen (outside of case reports describing success with high-dose ampicillin). Therefore, this study will examine outcomes in patients with VRE UTIs treated with ampicillin.

Methodology: A retrospective chart review will be conducted, evaluating subjects receiving ampicillin for treatment of VRE UTIs. Charts will be screened for indicators of UTI (quantitative monomicrobial urinary VRE culture > 105 CFU/mL, presence of fever, elevated serum white blood cell count, symptoms attributable to the urinary tract) and efficacy of treatment (clearance of urine cultures and symptoms, normalization of temperature and laboratory values).

Results:

Conclusions:

Presentation Objective: Review outcomes associated with using ampicillin for treatment of VRE UTIs. **Self-Assessment:** Is ampicillin an appropriate choice for treatment of VRE UTIs?

11:00

Room C

ID

IMPACT OF NEW HOSPITAL ACQUIRED PNEUMONIA CLINICAL PATHWAY IN THE MEDICAL INTENSIVE CARE UNIT

Jessica Gillon
Medical University Of South Carolina - Charleston, SC

Purpose/Background: Inappropriate use of antimicrobial agents is a problem in many intensive care units nationwide. The misuse of antimicrobial agents is contributing to an increased incidence of microbial resistance, increased hospital and intensive care unit length of stays, and an increased incidence of unnecessary antibiotic-associated adverse events. The clinical pathway for hospital acquired pneumonia (HAP)/ventilator associated pneumonia (VAP)/healthcare associated pneumonia (HCAP) will be modified to include the clinical pulmonary infection score (CPIS) as a tool to guide empiric antibiotics. Outcomes will be retrospectively assessed before and after implementation of the updated pathway in the medical intensive care unit (MICU).

Methodology: Data will be retrospectively collected for patients in the MICU who were initiated on broad spectrum antibiotics for suspected HAP/VAP/HCAP prior to and after implementation of an updated clinical pathway for diagnosis and treatment of suspected HAP/VAP/HCAP. Patients will be identified through the antimicrobial stewardship program. The primary objective of this analysis is total antibiotic days of therapy in the MICU. Secondary objectives include hospital mortality, ICU length of stay, and hospital length of stay. Descriptive statistics will be utilized to determine the differences between the pre-implementation patients and the post-implementation patients.

Results:

Conclusions:

Presentation Objective: Identify the impact of including the clinical pulmonary infection score (CPIS) in the hospital acquired pneumonia clinical pathway. **Self-Assessment:** At what clinical pulmonary infection score is pneumonia considered highly likely?

11:00

Room D

ID

ABSTRACT REPRODUCTION FORM

POPULATION PHARMACOKINETICS OF TWICE-DAILY INTRAVENOUS DOSING OF TACROLIMUS IN PEDIATRIC BONE MARROW TRANSPLANT PATIENTS
Mike L. Hurtik; Christine C. Rudd; Paul L. Martin; Michael Cohen-Wolkowicz
Duke University Hospital - PGY1 - Durham, NC

Purpose/Background: The calcineurin inhibitor tacrolimus is an important medication for preventing and treating graft-versus-host disease in bone marrow transplant recipients. The need for therapeutic drug monitoring of trough whole blood tacrolimus concentrations is well established due to its narrow therapeutic index and interpatient pharmacokinetic variability. Pediatric patients in particular show great variation in tacrolimus pharmacokinetic profiles. At Duke, tacrolimus is dosed intermittently, twice daily, as a two-hour intravenous infusion in pediatric bone marrow transplant patients being treated for graft-versus-host disease. While there are published studies evaluating the pharmacokinetics of the continuous infusion regimen in pediatric bone marrow transplant patients, little data is available regarding twice-daily intermittent intravenous dosing in this population.

Methodology: This is a single-center, retrospective, cohort study of pediatric patients receiving tacrolimus for graft-versus-host disease after allogeneic bone marrow transplantation at Duke Comprehensive Cancer Center's Division of Pediatric Blood and Marrow Transplantation between June 1, 2006 and July 1, 2010. The primary outcome is to determine the population pharmacokinetics of twice-daily intravenous tacrolimus in pediatric bone marrow transplant patients, including models of both clearance and volume of distribution. Secondary outcomes include describing the time required to achieve target tacrolimus concentrations and assessing whether the dose needed to achieve three consecutive target tacrolimus concentrations is more consistently predicted on a milligram per kilogram or milligram per body surface area basis.

Results:

Conclusions:

Presentation Objective: Describe patient characteristics which alter tacrolimus pharmacokinetics **Self-Assessment:** Describe one patient characteristic which affects the pharmacokinetics of twice-daily intravenous tacrolimus.

11:00

Room G

CLPK

ABSTRACT REPRODUCTION FORM

EVALUATION AND IMPLEMENTATION OF CLOSED SYSTEM TRANSFER DEVICES
Kirby Connolly, Lisa Hymel, Pam Lewis
Sarasota Memorial Hospital - Sarasota, FL

Purpose/Background: Health care personnel working with antineoplastics are at an increased risk of reproductive toxicity and cancer. NIOSH recommends the use of closed system transfer devices (CSTDs) to manipulate antineoplastics in order to reduce these risks by decreasing exposure to hazardous vapors. The purpose of this project is to evaluate several products and determine the most cost-effective option.

Methodology: All commercially available CSTDs were considered for this evaluation. Six compounding pharmacists completed a comparison study of the CSTDs after appropriate product education by respective company representatives. Pharmacists completed specific questionnaire on each CSTD rating (1) ease of use, (2) leakage problems, (3) preparation time and (4) potential benefits and disadvantages. The two highest-rated CSTDs were then compared in a cost-effectiveness analysis. A report of all antineoplastics prepared over the past year was extrapolated to each device to determine a typical year's financial investment. The most cost-effective option was then implemented.

Results:

Conclusions: Pharmacist evaluation and monetary impact are important considerations prior to implementing a CSTD. Engaging staff in the decision process can lead to successful implementation and consistent use of the device.

Presentation Objective: Identify barriers to implementing a CSTD. **Self-Assessment:** What elements besides cost must be considered when implementing a CSTD?

11:00

Room H

ONC

ABSTRACT REPRODUCTION FORM

COMPARISON OF HEPARIN DOSING STRATEGIES IN PATIENTS GREATER THAN 85 KILOGRAMS WITH ACUTE CORONARY SYNDROMES
Michelle Woods, Julie Cooper
Moses H. Cone Health System - Greensboro, NC

Purpose/Background: As a participating institution with the ACTION registry, our historically non-capped weight-based heparin dosing protocol has come under scrutiny for its potential to overdose patients. The purpose of this study was to evaluate the efficacy of a non-capped weight-based heparin dosing protocol compared to a guideline-based capped heparin dosing protocol for patients with acute coronary syndromes weighing greater than 85 kg.

Methodology: A retrospective chart review was conducted of all patients admitted to MCMH with ACS who were greater than 85 kg and received heparin prior to an institutional protocol change on December 1, 2010. This was followed by a prospective chart review to evaluate the newly instituted capped heparin dosing protocol. The number of patients evaluated in each arm was determined to detect a 20% absolute improvement with 80% power. The primary outcome was the percentage of patients with first anti-Xa heparin level in the therapeutic range. Secondary endpoints included assessments of in-hospital bleeding rates and outcomes of recurrent myocardial infarction, total vessel revascularization, or death at hospital discharge.

Results:

Conclusions:

Presentation Objective: Compare the efficacy and the effect on patient outcomes of a non-capped weight-based heparin dosing protocol to a capped heparin dosing protocol in patients greater than 85 kg with ACS. **Self-Assessment:** What is the effect of capped heparin dosing on obtaining therapeutic heparin levels?

11:00

Room I

IM

ABSTRACT REPRODUCTION FORM

DESIGN AND IMPLEMENTATION OF A HOSPITAL-WIDE ALCOHOL DETOXIFICATION PROTOCOL
Jennifer Miles And Leidi Paez
Miami VA Healthcare System - Miami, FL

Purpose/Background: In 2000, the Substance Abuse and Mental Health Services Administration estimated that more than 55,000 veterans were admitted for treatment of substance abuse, with alcohol treatment accounting for 68% of those admissions. Many patients present to the medical teams at the Miami VA with alcohol intoxication as the primary diagnosis on admission. Currently, there is no hospital-wide-protocol for the treatment of alcohol detoxification.

Methodology: A retrospective chart review of patients with alcohol detoxification as their primary diagnosis for the last 6 months will be conducted. The long-term goal is to develop a uniform protocol to implement at the Miami VA, the objectives of which will be to streamline treatment and decrease patient length of stay. Once the protocol is implemented, a chart review of patients admitted with alcohol detoxification as a primary diagnosis will be performed to assess the effectiveness of treatment.

Results:

Conclusions:

Presentation Objective: Describe the current recommended treatments for alcohol detoxification, review the current treatment modalities for alcohol detoxification at the Miami VA Medical Center and present the protocol developed for hospital-wide alcohol detoxification. **Self-Assessment:** Does the implementation of a hospital-wide protocol improve efficiency of patient care and decrease length of stay?

11:00

Room J

IM

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

EFFICACY AND SAFETY OF PATIENT CONTROLLED ANALGESIA VERSUS NURSE CONTROLLED INTERMITTENT OPIOID DOSING

Julie Nguyen, Syeda Kareem, Jennifer Moeller
St. Joseph's Hospital - Tampa, FL

Purpose/Background: Several studies reported that optimal pain control is a challenge in post surgical patients. Conventional intermittent dosing depends on nursing assessment and administration prior to and after each dose. Patient controlled analgesia (PCA) is believed to be associated with high patient satisfaction scores due to patient autonomy and potential decreased delays in medication administration. Past studies and systematic reviews comparing these two methods have yielded mixed results regarding efficacy of treatment. The purpose of this study is to determine which method is more effective for pain control due to variability in physician prescribing at St. Joseph s Hospital.

Methodology: This study is a retrospective chart review comparing PCA administration versus intermittent nurse administered opioid doses in postoperative orthopedic patients. Postoperative patients 18 years of age or older, will be included in the study. Patients on long-acting opioids, those receiving a PCA with concomitant basal infusion or concomitant intermittent doses, and those with epidural, spinal, and continuous femoral blocks will be excluded. Information obtained from chart reviews will include up to 48 hours post operatively or until complete conversion to oral pain medications. Pain score and total opioid doses will be used to determine the primary outcome of efficacy. Use of naloxone and documented adverse effects will be used to evaluate the secondary outcome of safety.

Results:

Conclusions:

Presentation Objective: Evaluate the efficacy and safety of patient controlled analgesia versus nurse controlled intermittent dosing. **Self-Assessment:** What are possible explanations for differences in pain relief between PCA and traditional analgesia?

11:00

OLY 1

MUS

DEVELOPMENT AND IMPLEMENTATION OF A BUSINESS PLAN FOR A DIABETES EDUCATION PROGRAM IN AN INDEPENDENT COMMUNITY PHARMACY

Laura Thompson, Chris Thurmond, Sukhmani Sarao
University Of Georgia College Of Pharmacy - Athens, GA

Purpose/Background: More than 20 million Americans are living with diabetes, but a 1998 study shows only 2% follow ADA recommendations for self-management despite mounting evidence that effective self-management improves patient outcomes. Further studies have shown that diabetes education is effective for improving self-management and patient outcomes. However, pharmacists are not delivering this education because there is no evidence that these interventions are financially sustainable. The purpose of this study is to describe the development and implementation of a business plan for a diabetes education program in an independent community pharmacy.

Methodology: A Diabetes Education Program was developed based on American Association of Diabetes Educators curriculum. The curriculum followed the American Diabetes Association Standards of Practice. The market for this service was evaluated by conducting a survey of patients with diabetes who obtain their prescriptions at the independent community pharmacy. The service was advertised at the pharmacy and a pilot program lasting 12 weeks was implemented. The effectiveness of the education will be assessed at the end of the pilot program and at this time the process of certification for reimbursement will be initiated. The financial viability of the program will be evaluated.

Results: The Diabetes Education Program had a maximum of 8 participants. Further results are pending.

Conclusions:

Presentation Objective: Describe the potential benefits of a Diabetes Education Program in a community pharmacy setting. **Self-Assessment:** What is an advantage of a pharmacy-based diabetes education program versus a program based in a physician s office or a hospital?

11:00

OLY 2

CP

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

IMPACT OF TIGER MEDS ON PATIENT MEDICATION COMPLIANCE, SATISFACTION, AND QUALITY OF LIFE

Molly Hatcher
Auburn University Pharmacy Care Center - Auburn, AL

Purpose/Background: The Auburn University Employee Pharmacy offers a prescription drug coverage program, entitled Tiger Meds, which enables university-insured employees and their dependants to receive generic maintenance medications at no cost to the patient. The purpose of this study is to evaluate the impact of the Tiger Meds program on patient medication compliance, patient satisfaction and quality of life.

Methodology: : Eligible participants are those age 18 and older who are patients of the Auburn University Employee Pharmacy and are receiving routine maintenance medication(s). A retrospective data analysis will be performed to assess patient medication compliance by reviewing prescription refill records of Tiger Meds patients on select generic medications compared to refill records of those patients receiving therapeutically equivalent brand name medications. In addition, a patient survey will be conducted among Tiger Meds patients in order to assess the impact of free generic prescriptions on their healthcare satisfaction and quality of life.

Results:

Conclusions:

Presentation Objective: Identify the impact of a free generic prescription program on patient medication adherence. **Self-Assessment:** What is the correlation between a patient s prescription drug expense and medication adherence?

11:00

PARTH 1

AMB

RESULTS OF A PHARMACIST-MANAGED CARDIOVASCULAR RISK REDUCTION CLINIC AT A VETERANS AFFAIRS MEDICAL CENTER

Chabely Ruffin, Elizabeth Hamilton, Crystal Wink
Ralph H. Johnson VA Medical Center - Charleston, SC

Purpose/Background: The purpose of this study is to describe the clinical effectiveness of a pharmacist-managed Cardiovascular Risk Reduction (CRR) Clinic in attaining goal systolic and diastolic blood pressure values, based on The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7) guidelines. Recent publications show promising results in the management of hypertension by pharmacist-run hypertension clinics. In June 2007, a pharmacist-managed CRR Clinic was implemented at the Ralph H. Johnson VA Medical Center to assist with improving facility blood pressure performance measures.

Methodology: The study population was defined as patients with diagnosed hypertension seen between June 1, 2007 and September 30, 2010 in the CRR Clinic with elevated blood pressures. We determined the percent of patients attaining goal systolic and diastolic blood pressure values upon discharge from the clinic or by end of the study period, whichever occurred first. The number of clinic visits needed to attain JNC 7 blood pressure goals was also measured. Finally, we compared the annual performance of the CRR clinic with the facility as a whole, in meeting predetermined blood pressure performance goals.

Results:

Conclusions:

Presentation Objective: Identify key recommendations in blood pressure goals for patients with co-morbidities. **Self-Assessment:** What role can pharmacists play to help a facility meet blood pressure performance measure goals?

11:00

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

RETROSPECTIVE EVALUATION OF QUETIAPINE FOR THE TREATMENT OF INTENSIVE CARE UNIT DELIRIUM
Carolyn D. Cummings, Joseph V Ybarra
East Alabama Medical Center - Opelika, AL

Purpose/Background: It is standard practice to administer haloperidol for the treatment of intensive care unit (ICU) delirium; however, higher doses of can result in QTc interval prolongation, hypotension and extrapyramidal side effects. Quetiapine and other atypical antipsychotics exhibit less neurologic effects and a better tolerated side effect profile. The primary objective of this study is to evaluate the efficacy of scheduled quetiapine given to patients experiencing delirium in the ICU by comparing it to standard haloperidol treatment

Methodology: Automated dispensing cabinets from the ICU were used to generate a list of patients who received haloperidol and/or quetiapine from September 1, 2009 through September 1, 2010. Patients who received either medication for 24 hours in the ICU were included and data collection was discontinued when patients were transferred to another floor or after seven days of treatment. Data obtained from an electronic medical record included: home medications, demographic information, vitals, sedative use, oxygenation status, RAAS scores, and if delirium resolved.

Results:

Conclusions:

Presentation Objective: To describe the use of quetiapine and/or haloperidol for the treatment of ICU related delirium. **Self-Assessment:** Can institutions safely implement the use of quetiapine for the treatment of ICU delirium?

11:20

Room A

CCM

ABSTRACT REPRODUCTION FORM

INHALED EPOPROSTENOL IN ACUTE RESPIRATORY DISTRESS SYNDROME: A RETROSPECTIVE ANALYSIS
Kisha Dunkley, Jinjoo Lee, Patricia Louzon, And Steve Vu
Florida Hospital - Orlando, FL

Purpose/Background: Acute respiratory distress syndrome (ARDS) results in severe hypoxemia as a result of ventilation/perfusion mismatching. Inhaled epoprostenol acts immediately by a receptor mediated increase of 3':5'-cyclic adenosine monophosphate. This results in a relaxation of smooth muscle cells in the vascular endothelium. The purpose of this study is to determine if the utilization of inhaled epoprostenol produced a 10% or greater increase in the ratio of arterial partial pressure of oxygen (PaO2): fraction of inspired oxygen (FIO2) in ARDS patients.

Methodology: A retrospective observational chart review was performed based on a report generated from the electronic medical record system. Patients who received at least one dose of inhaled epoprostenol from January 1, 2008 to December 31, 2010 at any Florida Hospital campus were included. Demographics, adverse effects, and outcome data were collected.

Results: 16 patients were included in the study. Oxygenation improved in 62.5 % (10/16) of the patients with an average increase of 46.7% in PaO2/FIO2. Three of the six patients that did not respond to therapy were on high flow oscillatory ventilation. Hypotension was the most frequently observed adverse event, with a rate of 18.8% (3/16). Survival was 43.8% (7/16).

Conclusions: Inhaled epoprostenol may improve oxygenation in patients with ARDS. The significance of these effects on improving clinical outcomes remains unknown.

Presentation Objective: To understand how inhaled epoprostenol affects oxygenation in acute respiratory distress syndrome patients. **Self-Assessment:** What is the proposed mechanism(s) by which inhaled epoprostenol mediates improved oxygenation in ARDS patients?

11:20

Room B

CCM

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION AND EVALUATION OF AN ANTIMICROBIAL STEWARDSHIP TEAM
Josh Caraccio, John Myers, Tina Foster
Fort Sanders Regional Medical Center - Knoxville, TN

Purpose/Background: To evaluate the impact of an Antimicrobial Stewardship Team consisting of clinical pharmacists and an infectious disease physician in a non-teaching community hospital.

Methodology: Automatic IV to PO Conversion Linezolid, levofloxacin, and fluconazole were selected as the focus for IV to PO conversion based on data documenting their high bioavailability and potential impact due to high frequency of use and high cost. Clinical pharmacists assess patients for eligibility based on inclusion and exclusion criteria approved by the Pharmacy and Therapeutics Committee. For eligible patients, the clinical pharmacist will place a preprinted order form on the chart to change the IV to PO in 24 hours, which allows the rounding physician to see the orders before the change to PO is made. Antiinfective Optimization Target drugs reviewed are linezolid, meropenem, and daptomycin which were selected based on potential development of resistance and medication cost. Clinical pharmacists monitor culture data to determine if these drugs can be streamlined. If they can be streamlined, the data is presented to the infectious disease physician. The Antimicrobial Stewardship Team then makes a recommendation regarding antiinfective therapy. To evaluate the program, utilization data for the targeted antibiotics will be compared to a similar time period before and after the initiation of the Antimicrobial Stewardship Team.

Results: Pending

Conclusions: Pending

Presentation Objective: Identify interventions pharmacist can make through an antimicrobial stewardship team. **Self-Assessment:** Name 2 antibiotics that have high oral bioavailability.

11:20

Room C

ID

ABSTRACT REPRODUCTION FORM

EVALUATING DORIPENEM USE FOR CYSTIC FIBROSIS EXACERBATIONS
Sara Lucas, Wendy Bullington, John Bosso, Antiene Stenbit, & Patrick Flume
Medical University Of South Carolina - Charleston, SC

Purpose/Background: While cystic fibrosis (CF) affects multiple organ systems, 85% of mortality is associated with lung disease. When lung function declines during pulmonary exacerbations, many patients are admitted to the hospital for intravenous antibiotics. Current guidelines recommend aminoglycosides and beta-lactams for treating exacerbations. Recent studies suggest that newer agents such as tigecycline and doripenem may have a niche in treating CF exacerbations. In vitro studies have shown doripenem is an effective killer of CF associated organisms. The objective of this study is to retrospectively evaluate the safety and efficacy of doripenem for treatment of CF exacerbations.

Methodology: This retrospective matched analysis consists of patients admitted to the Medical University of South Carolina (MUSC) for a CF exacerbation treated with doripenem from October 2009 through January 2011. Data collection will encompass: demographics, respiratory cultures, CBC, BMP, pulmonary function tests (PFTs), time to next exacerbation, and adverse effects associated with doripenem. Patients without prior documented PFTs or CF exacerbations will be excluded, as will those who died within 48 hours of admission. Secondary outcomes will evaluate time to next exacerbation, adverse effects associated with doripenem, length of hospitalization, CF quality of life score, and oxygen use.

Results: The MUSC CF database includes 153 adults. Of these patients, 18 received doripenem. Evaluation of outcomes is underway.

Conclusions:

Presentation Objective: Assess effectiveness of doripenem for treating CF exacerbations. **Self-Assessment:** Is doripenem a safe and effective option for treating CF exacerbations?

11:20

Room D

ID

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

EFFECTS OF PHARMACIST EDUCATION ON NONFORMULARY MEDICATION USE
AT AN ACADEMIC HOSPITAL
Katie Stabi; Ann Scates Mcgee
Duke University Hospital Drug Information - Durham, NC

Purpose/Background: A hospital formulary system is developed and implemented by the Pharmacy and Therapeutics Committee and is the responsibility of all healthcare professionals to maintain. Formulary system management involves evaluating medications for medical appropriateness, efficacy, safety, and cost-effectiveness. As a result, formularies streamline and standardize the number of items stocked and are continually updated. Prescribed medications not on formulary, or nonformulary (NF) medications, increase the quantity of medications stored in the pharmacy and possible overall costs. Currently, this academic, nonprofit institution has a large volume of NF medications prescribed with available formulary therapeutic alternatives.

Methodology: This interventional, quality improvement study is exempt from investigational review board approval and will evaluate the top five prescribed NF medications with therapeutic alternatives on formulary. An educational session on the current formulary policy was presented to pharmacists. A retrospective review will be completed to evaluate NF medication orders prior to and after the education session. Descriptive statistics and chi-square analysis will be used to determine the impact of a pharmacist education program on NF medication volume.

Secondary objectives include: decrease the quantity of NF medications dispensed, determine the primary clinical justification according to the formulary policy, determine the percent of newly initiated NF medications ordered compared to continuation of home medications, and evaluate potential cost difference of a formulary medication used in place of a NF medication.

Results:

Conclusions:

Presentation Objective: State reasons why it is important to minimize NF medication utilization. **Self-Assessment:** Which of the following is a benefit of maintaining a low NF use?

11:20

Room G

DI

EVALUATION OF ADULT CHEMOTHERAPY ANTIEMETIC PRESCRIBING TO
SUPPORT DEVELOPMENT OF INSTITUTION SPECIFIC ANTIEMETIC GUIDELINES
Randi Bridges, Christina Ciccarello, Deanna Rattray
Presbyterian Hospital - Novant Health - Charlotte, NC

Purpose/Background: To determine if institution specific guidelines for standardization of prophylactic antiemetic therapy for chemotherapy-induced nausea and vomiting (CINV) are warranted.

Methodology: Retrospective, randomized, chart review from August 1, 2009 through August 1, 2010. Inclusion criteria were inpatients age greater than or equal to 18 years and chemotherapy naïve. Exclusion criteria were patients who received chemotherapy as an outpatient, less than 18 years of age, and previously received chemotherapy. Fifty patients were evaluated for appropriateness of antiemetic regimen prescribed as defined by National Comprehensive Cancer Network (NCCN) antiemetic guidelines, successful prevention of CINV based on the average number of daily rescue antiemetic doses needed, and cost impact of associated antiemetic therapy.

Results: The majority of patients were initiated on high emetogenic risk chemotherapy regimens (n= 39, 78%). A total of 88 prophylactic dosing variances were found. The most common dosing variance was associated with dexamethasone (n= 53, 60%). There were a total of 68 omissions, of these 36 were dexamethasone (53%) and 32 were aprepitant (47%). NCCN guidelines were not strictly followed for any patient regimen. The number of post-chemotherapy antiemetic doses averaged 2.55 doses per day total (0.63 doses per day for as needed and 1.92 doses per day for scheduled).

Conclusions: Preliminary results help to support the need for institution specific prophylactic antiemetic guidelines adapted from NCCN recommendations.

Presentation Objective: To identify opportunities for improvement in prescribing prophylactic antiemetic therapy. **Self-Assessment:** What processes can be implemented to influence antiemetic prescribing for prevention of CINV?

11:20

Room H

ONC

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

EVALUATION OF HYDRATION PRACTICES FOR THE PREVENTION OF
CONTRAST-INDUCED NEPHROPATHY
Cristina Vida, Ruth Kuo, Terry Tiemeier, Peter Fitzpatrick
Mayo Clinic In Florida - Jacksonville, FL

Purpose/Background: To evaluate and compare current hydration practices at Mayo Clinic Florida in order to create a standardized protocol. Contrast-induced nephropathy (CIN) is a serious complication associated with high in-hospital mortality and poor long-term survival. Several preventative methods have been studied in the literature, including peri-procedural hydration. Mayo Clinic Florida has in place two different hydration protocols which vary in rate, total infusion time, and total volume. The Radiology protocol is supported by the Merten, et al. study while the Catheterization Lab protocol is based on Mayo Clinic clinical experience.

Methodology: Retrospective chart review will be performed on hospital inpatients who received either hydration protocol from June 1, 2009 through May 31, 2010. The primary endpoint will be to determine the incidence of contrast-induced nephropathy among patients who received different hydration protocols. CIN will be defined here as post-exposure serum creatinine elevation of $\geq 25\%$ of baseline or >0.5 mg/dL increase from baseline within 48 hours of contrast exposure. The secondary endpoint will be to determine safety of the protocols by evaluating fluid status and the use of medical management to correct for fluid overload.

Results:

Conclusions:

Presentation Objective: To understand the potential significance of the rate, total infusion time, and total volume of sodium bicarbonate in preventing CIN. **Self-Assessment:** What is one complication that may arise from the Catheterization Lab hydration protocol that is addressed in the Radiology protocol?

11:20

Room I

IM

PROSPECTIVE COMPARISON OF AN INPATIENT PHARMACIST MANAGED
ANTICOAGULATION SERVICE VERSUS USUAL MEDICAL CARE.
Lawrence Davila, Christine Price, Mark Blackwell
Morton Plant Mease Healthcare - Clearwater, FL

Purpose/Background: To compare anticoagulation control in hospital patients treated with a protocol-based pharmacist managed anticoagulation service with that of usual medical care. Warfarin is known to be effective in both the inpatient and outpatient setting for the prevention and treatment of venous thromboembolism, systemic embolism, and to reduce the risk of recurrent myocardial infarction. Outpatient anticoagulation clinics have been using established pharmacist managed protocols for warfarin and numerous studies have been conducted in the outpatient setting to validate these protocols. However, with only a handful of published studies, the data is limited on warfarin dosing protocols in the inpatient setting.

Methodology: This is a prospective study evaluating a pharmacist managed inpatient anticoagulation dosing protocol compared to physician managed dosing at Morton Plant Hospital between November 1, 2010 and April 30, 2011. Warfarin dosing in the study group will be determined using an initial dosing algorithm based off of patient specific factors and changes in dose will be based on a dose adjustment algorithm. PT/INR and CBC will be ordered at baseline, then PT/INR daily and CBC at a minimum of every 3 days. Patients will be evaluated based on percent of INRs within range, length of stay, bleeding and thromboembolic events.

Results:

Conclusions:

Presentation Objective: To compare anticoagulation control in hospital patients treated with a protocol-based pharmacist managed anticoagulation service with that of usual medical care. **Self-Assessment:** What patient specific factors should be evaluated when determining an initial warfarin dose?

lawrence.davila@baycare.org

11:20

Room J

IM

ABSTRACT REPRODUCTION FORM

EVALUATION OF VENOUS THROMBOEMBOLISM PROPHYLAXIS AT A RURAL COMMUNITY HOSPITAL
Erin Patrick, Cathy Shely, Flint Russett
St. Claire Regional Medical Center - Morehead, KY

Purpose/Background: A recent study showed that only 58.5% of surgical patients and 39.5% of medical patients received appropriate venous thromboembolism prophylaxis. Hospital performance and quality improvement measures for venous thromboembolism prophylaxis have been endorsed by multiple regulatory and accrediting agencies, including the Centers for Medicare and Medicaid Services and The Joint Commission. A venous thromboembolism prevention practice improvement program will support hospital goals to provide quality medical care and customer service, cost containment, and facilitate performance reporting, risk avoidance and reimbursement for services. The purpose of this study is to evaluate the venous thromboembolism prophylaxis strategies used at a rural community hospital compared to evidence-based standards in order to identify areas for improvement.

Methodology: Eligible patients included those >18 years of age who were admitted for >24 hours during August or October 2010 due to a medical illness or surgical procedure. The hospital records of 10% of the eligible patients admitted during the study times were retrospectively reviewed. Data regarding measures taken to prevent venous thromboembolism was collected and evaluated for compliance with the American College of Chest Physicians clinical practice guidelines for prevention of venous thromboembolism, adverse events and outcomes of treatment.

Results:

Conclusions:

Presentation Objective: List appropriate methods for venous thromboembolism prophylaxis in medical and surgical patients. **Self-Assessment:** Which of the following is not an appropriate therapy choice for venous thromboembolism prophylaxis in medical and surgical patients?

11:20

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

IMPACT OF COMMUNITY PHARMACIST INTERVENTION FOR ANNUAL INFLUENZA VACCINES IN A DIABETIC POPULATION
Megan Ellmers, Kimberly Grubbs, And Sukhmani Sarao
University Of Georgia College Of Pharmacy - Athens, GA

Purpose/Background: Evaluate the impact of pharmacist counseling on the incidence of patients with diabetes receiving annual influenza vaccines and examine what reasons contribute to non-adherence in vaccination rates.

Methodology: Eligible patients were aged 18 and older that had any diabetic medication filled at a community-chain pharmacy between September 23, 2010 and December 31, 2010. Surveys were given at medication pick-up. Those that completed a survey that had not had an influenza vaccine were counseled by a pharmacist about the importance of annual influenza vaccinations. One month after pharmacist intervention, patients were contacted to determine if they had received an influenza vaccine and if they had not, what factors may influence non-adherence rates.

Results: Thirty-three patients submitted surveys. 57.6% of patients had received an influenza vaccination at the time of the initial survey, while 42.4% had not. Results reporting the effect of pharmacist intervention counseling are pending and will be completed by March 2011.

Conclusions: A large portion of diabetic patients do not adhere to the recommendation to receive an annual influenza vaccine. Non-adherence rates can be related to patient perceptions that they infrequently get sick so they feel that they do not need to receive the influenza vaccine.

Presentation Objective: Evaluate the adherence of patients with diabetes receiving an annual influenza vaccination and identify if pharmacists have a role in improving adherence rates.

Self-Assessment: What are adherence rates of patients with diabetes that receive an annual influenza vaccination and what factors contribute to not receiving an annual vaccination?

11:20

OLY 2

CP

ABSTRACT REPRODUCTION FORM

IMPACT OF PREVENTATIVE WELLNESS SCREENINGS AND PHYSICIAN REFERRAL ON MEASURES FOR HYPERTENSION, DYSLIPIDEMIA, AND GLUCOSE INT
Jacqueline Nash
Auburn University Pharmacy Care Center - Auburn, AL

Purpose/Background: The Healthy Tigers initiative has been implemented at Auburn University and conducted by the Auburn University Pharmaceutical Care Center (AUPCC) in an attempt to improve employee health and reduce health care costs through early identification of disease markers. The objective of this project is to determine whether or not the Healthy Tigers initiative is improving disease markers for those employees who meet the alarm values and are referred to their primary provider.

Methodology: Employees are screened for cholesterol, blood pressure, and blood glucose in 15 minute time slots with each screening conducted by either a fourth-year student pharmacist, resident, or clinical pharmacist. Those meeting the predetermined alarm values are referred to a physician's care for follow up. Completion of the screening process is tied to a monthly insurance premium discount of \$25.00.

Results:

Conclusions:

Presentation Objective: To determine if routine employee health screenings improve disease markers and promote a healthier employee population. **Self-Assessment:** What factor has the biggest impact on participation rate?

11:20

PARTH 1

AMB

ABSTRACT REPRODUCTION FORM

USE OF THE IPRO CONTINUOUS GLUCOSE MONITORING (CGM) SYSTEM TO OPTIMIZE PATIENTS' DIABETES REGIMENS
Lindsay Sheehan
Carolinas Medical Center - Northeast - Concord, NC

Purpose/Background: Pharmacists have become involved in the patient-centered medical home by developing pharmacist-managed clinical services, such as diabetes clinics, in order to increase patient/healthcare provider interaction and deliver optimal health services. Often, pharmacists, in collaboration with clinicians, adjust patients' diabetes regimens based on fingerstick blood glucose readings. However, this only offers instantaneous information of patients' blood glucose, allowing unnoticed asymptomatic lows or nighttime glucose peaks to be missed, leading to erratic blood glucose control. The iPro CGM checks patients' blood glucose every five minutes. This project seeks to determine if pharmacist utilization of a CGM, worn for three to seven days, and used to guide diabetes therapy changes would improve patients' hemoglobin A1C, decrease episodes of hypoglycemia, and overall improve diabetes control.

Methodology: Twenty patients with A1C greater than 6.5%, or with normal A1C but symptomatic hypoglycemia, had an iPro CGM placed and worn for three to seven days. After the allotted timeframe, patients returned to the clinic to have the iPro removed. The patient's results were interpreted and the patient returned for a follow up visit with the physician and PharmD to make adjustments to their diabetes regimen based on the CGM results. A follow up A1C was obtained three months after the initial change in patients' regimens.

Results:

Conclusions:

Presentation Objective: To describe the impact of pharmacists utilizing an iPro CGM to guide diabetes therapy changes in order to improve patients' diabetes control. **Self-Assessment:** What are the advantages of using the iPro CGM to optimize patients' diabetes regimens?

11:20

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

NURSE-CONTROLLED NEONATAL ANALGESIA VERSUS CONTINUOUS FENTANYL ADMINISTRATION
Leigh Anderson, Robin Dills, Cherrie Welch
Wake Forest University Baptist Medical Center Pgy-2 Peds - Winston-Salem, NC

Purpose/Background: Adequate neonatal pain management can be difficult to balance with the complications of over sedation, opioid tolerance, and withdrawal. Continuous fentanyl infusions were traditionally used for post-operative analgesia; however, our institution recently expanded our Nurse-Controlled Neonatal Analgesia (NCNA) protocol for post-operative pain management to include neonates weighing less than two kilograms. This protocol is thought to exhibit opioid-sparing effects while providing adequate pain management. Therefore, the primary objective of this study was to compare the 72 hour post-operative cumulative dose of fentanyl given via continuous infusion or NCNA to neonates weighing less than two kilograms. The secondary objectives were to compare pain control and time to baseline respiratory status.

Methodology: This was an IRB-approved, retrospective, cohort study. It included patients who were admitted to the Neonatal Intensive Care Unit and received fentanyl following surgery for enterostomy or patent ductus arteriosus ligation. Patients weighing two kilograms or more were excluded. Data collection included baseline demographics of age, gender, weight, race, admission diagnosis, and comorbidities as well as prior exposure to benzodiazepines and opioids. The total doses of fentanyl and benzodiazepines within 72 hours post-operatively were calculated for each patient. Ventilator settings and pain scores were recorded as well. The primary outcome was the cumulative fentanyl dose measured in micrograms per kilogram. Secondary outcomes included pain scores as well as time to respiratory normalization.

Results:

Conclusions:

Presentation Objective: Identify three major complications due to opioid exposure in neonates. **Self-Assessment:** What effects does NCNA have on total fentanyl exposure in post-operative neonates?

11:40

Room A

PED

ABSTRACT REPRODUCTION FORM

ASSOCIATION OF PARENTERAL AMINO ACID NUTRITION FORMULATIONS AND METABOLIC ACIDOSIS IN PREMATURE INFANTS
Morgan G Weaver, Carrie Brusseau, James K Bass
University Of Tennessee Medical Center - Knoxville - Knoxville, TN

Purpose/Background: Amino acid administration in very low birth weight infants is recommended to decrease early protein deficits that are associated with postnatal growth restriction. However, there is concern that excessive intravenous amino acid intake may cause metabolic acidosis in this patient population. The purpose of this study is to determine whether an association exists between the early administration of amino acids and the incidence of metabolic acidosis in premature infants.

Methodology: The health system's electronic medical record system will be used to identify very low birth weight infants (birth weight less than 1500 g and less than 32 weeks gestational age) started on amino acid solutions. Infants with perinatal asphyxia, congenital cardiac anomalies, large PDA (diagnosed by echocardiography), and those with renal anomalies will be excluded from this study. The following data will be collected: gestational age, admission and daily weights, daily protein intake (grams/kg/day), daily enteral intake, time of initiation of amino acid infusion in relation to time of birth, BUN, creatinine, bicarbonate, serum sodium, pH, anion gap, urine protein, congenital anomalies, other comorbidities and medications. A severity of illness score will also be determined for each patient, the SNAPPE-II score. Data will be collected for the first five days of life.

Results:

Conclusions:

Presentation Objective: Identify potential causes of metabolic acidosis in the low birth weight neonatal population. **Self-Assessment:** Do changes need to be made to prevent metabolic acidosis in the neonatal population?

11:40

Room B

PED

ABSTRACT REPRODUCTION FORM

EVALUATION OF CLINICAL OUTCOMES WITH EXTENDED-INFUSION PIPERICILLIN-TAZOBACTAM VERSUS CONVENTIONAL DOSING IN ICU PATIENTS
Andrea Jarzyniecki, Darrell Childress, Amy Donaldson
East Alabama Medical Center - Opelika, AL

Purpose/Background: Piperacillin-tazobactam is a commonly prescribed broad-spectrum antibiotic recommended in guidelines for empiric treatment of several infectious diseases. It is a bactericidal antibiotic that exhibits time-dependent killing. Studies using Monte Carlo simulations have demonstrated that the percentage of time above the minimum inhibitory concentration is increased with the use of an extended infusion dosing versus a traditional infusion. Additional studies have concluded that conventional dosing and extended-infusion dosing are equally effective, with the data trending toward superior clinical outcomes with extended-infusion dosing, particularly in the critically ill. EAMC implemented an automatic substitution protocol to dose all piperacillin-tazobactam orders as extended-infusions in December 2009. It is hypothesized that extended-infusion piperacillin-tazobactam is clinically superior to conventional dosing. The objective of this study is to compare clinical outcomes in patients who received extended-infusion piperacillin-tazobactam in the ICU with patients who received conventional dosing.

Methodology: This study was conducted as a retrospective chart review. Patients who received piperacillin-tazobactam in the ICU prior to the implementation of the extended-infusion protocol were compared to those who received the antibiotic after implementation. Primary outcomes include all cause mortality and hospital length of stay. Secondary outcomes include time to resolution of fever and leukocytosis. Baseline characteristics including age, gender, race, and co-morbidities were compared.

Results:

Conclusions:

Presentation Objective: Compare clinical outcomes in patients who received extended-infusion and traditional infusion piperacillin-tazobactam. **Self-Assessment:** What is the rationale of using extended infusion with beta lactam antibiotics?

11:40

Room C

ID

ABSTRACT REPRODUCTION FORM

CLINICAL EVALUATION OF AN IN-HOUSE VANCOMYCIN DOSING PROTOCOL FOR EFFICACY AND SAFETY
Ryan A. Waybright, Shannon Suggs, Jenna Swindler
McLeod Regional Medical Center - Florence, SC

Purpose/Background: The current IDSA Consensus Review now recommends vancomycin trough concentrations between 10-20 mcg/ml depending on the indication, in order to balance efficacy with the risk of nephrotoxicity. The vancomycin dosing protocol at this health care center was last revised in response to these new recommendations. The objective of this study is to clinically validate the in-house protocol used for initial scheduled dosing of vancomycin for safety and efficacy.

Methodology: Medical records will be reviewed to identify any patients who began a vancomycin regimen by the institutional protocol from 01/01/2010-07/31/2010 and received vancomycin for at least 72 hours. Patients will be included if at least one steady state serum vancomycin trough concentration was documented along with a serum creatinine drawn on at least 33% of their vancomycin therapy days. Patients will be excluded for receiving renal replacement therapy or having a serum creatinine > 2 mg/dL at baseline. As a secondary analysis, other factors which may lead to increased susceptibility to acute renal failure with vancomycin will be recorded, including: ICU stay, vasopressor use, surgical procedures, and concomitant nephrotoxic medications. The data will be reviewed to determine the accuracy of the nomogram to produce a trough level in the desired range, along with the incidence of nephrotoxicity.

Results:

Conclusions:

Presentation Objective: To describe the overall safety and efficacy of the institutional nomogram and identify modifications which may improve overall patient care. **Self-Assessment:** What concomitant risk factors demonstrated a positive correlation with increased risk of nephrotoxicity in vancomycin patients?

11:40

Room D

ID

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

RETROSPECTIVE EVALUATION OF AN ELECTRONIC WARFARIN DOSING ALGORITHM AT PREDICTING INITIAL WEEKLY DOSES OF WARFARIN THERAPY
Nicholas Nelson, Serina Tart, Dustin Wilson, Mary Roederer, Dan Jonas
Cape Fear Valley/Southern Regional AHEC - Fayetteville, NC

DEVELOPMENT OF A TOOL FOR THE EVALUATION OF THE COST OF CHEMOTHERAPY REGIMENS
Justin Bradley Marx, Sheree W. Tolbert
Columbus Regional Healthcare System - Columbus, GA

Purpose/Background: The management of warfarin is difficult because of great variability in the dose response relationship, which is in part caused by genetic polymorphisms. iWarfarin®, a smart phone application, integrates pharmacogenomics in initial dosing of warfarin. Pharmacogenomic-guided dosing as a useful strategy to improve clinical outcomes with warfarin therapy appears credible and warrants further investigation. The purpose of this study is to evaluate the performance of the electronic application, iWarfarin®, in predicting initial weekly doses of warfarin compared to those predicted by warfarindosing.org®.

Purpose/Background: In the current healthcare environment, responsible utilization of diminishing healthcare resources is vital. In order to accommodate for the potential for change in the Medicare reimbursement structure, it is important to determine the costs incurred by an institution when patients receive chemotherapy. The purpose of this research is to develop and test a tool designed to determine the cost of selected adjuvant breast cancer regimens. A secondary objective will be to make the tool capable of determining the measurable cost of any chemotherapy regimen.

Methodology: Patients who are currently enrolled in a study underway at the University of North Carolina-Chapel Hill (NCT00904293) with a target INR between 2 and 3 will be included in the analysis. The UNC-CH study uses warfarindosing.org® to determine initial warfarin doses in patients with genetic information (experimental group) and in patients without genetic information (control group). The iWarfarin® dose predictions will be calculated and compared to both the doses predicted by warfarindosing.org® and the actual therapeutic maintenance doses for subjects in both arms of the study. Comparison of the iWarfarin® dose predictions will be assessed by computing the proportion of patients in which the predicted dose was d 20% (under dosed), within 20% (ideally dosed), or e 20% (over dosed) of the dose predictions made by warfarindosing.org®.

Methodology: National Comprehensive Cancer Network (NCCN) guidelines were used to determine the following for each regimen: the pre-/post- medications, required monitoring and follow up. Measurable labor and supply costs were incorporated into the tool. The tool will be utilized to compare the calculated cost with total charges and reimbursement for chemotherapy received by a sampling of breast cancer patients at the John B. Amos Cancer Center. This comparison will test the accuracy of the tool as well as elucidate the cost-effectiveness of the current institutional model. The tool will then be developed into a format generalizable to any chemotherapy regimen.

Results:

Results:

Conclusions:

Conclusions:

Presentation Objective: Evaluate how the application iWarfarin performs in predicting initial weekly doses of warfarin. **Self-Assessment:** What tools are currently available to aid clinicians in dosing warfarin?

Presentation Objective: Compare the cost between six adjuvant breast cancer regimens. **Self-Assessment:** List cost-changing features of adjuvant breast cancer regimens.

11:40

Room G

DI

11:40

Room H

ONC

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

COMPARISON OF SLIDING SCALE INSULIN THERAPY FOR PARENTERAL NUTRITION INDUCED HYPERGLYCEMIA
Jessica Peterson, Maria Ballod, James Scolapio, Michelle Romano
Mayo Clinic In Florida - Jacksonville, FL

ASSESSMENT OF SLIDING SCALE INSULIN IN NON-CRITICAL CARE PATIENTS AT A TERTIARY CARE HOSPITAL
Jh Claiborne, Mj Melroy, Jm Schoeffler, Dp Deen, Wk Kennedy
Memorial University Medical Center - Savannah, GA

Purpose/Background: Hyperglycemia is a common complication associated with Parenteral Nutrition (PN), even in patients without a history of glucose intolerance. PN presents a unique challenge for glycemic control, as patients are exposed to a continuous-concentrated dextrose infusion. Estimating insulin requirements in PN patients can be difficult as many patients only have a transient rise in glucose with the initial infusion and endogenous insulin can adjust within the first few days of PN administration. There are currently no recommendations for specific management of PN induced hyperglycemia and Sliding Scale Insulin (SSI) is frequently used.

Purpose/Background: Hyperglycemia in the hospital setting has been associated with increased morbidity, mortality, and length of stay. The American Association of Clinical Endocrinologists states when using subcutaneous insulin therapy, scheduled insulin regimens should be the standard of care and that subcutaneous sliding scale insulin (SQ SSI) regimens used alone are ineffective and increase the risk of hyperglycemic episodes. At our institution, the SQ SSI protocol does not include a basal insulin component. There are approximately 150 patients on SQ SSI at any given time in our hospital. The purpose of this study is to compare the mean daily blood glucose concentration between the diabetic inpatients in non-critical care areas on SQ SSI who have basal insulin to those without a basal insulin component.

The types of insulin used for SSI regimens have different pharmacokinetic profiles and it is not known if one type is superior or more efficacious in the sustained management of PN induced hyperglycemia. The purpose of this study is to compare patients on PN who are managed with either regular or aspart SSI and determine the percentage of blood glucose (BG) readings within the AACE/ADA and A.S.P.E.N. recommended range of 70-180mg/dL for non-ICU patients on PN therapy.

Methodology: This retrospective electronic chart review will assess the first 72 hours of adult patients started on SQ SSI in non-critical care areas. All blood glucose levels will be documented for each patient within this time frame. Also, the total units of insulin given and number of hypoglycemic events for each patient will be documented. Nurse compliance rate with the SQ SSI protocol will also be recorded for each blood glucose level.

Methodology: This is an observational retrospective review comparing adult, non-ICU inpatients who received centrally administered PN and aspart or regular SSI. Patients who meet inclusion criteria will be matched according to age, gender and BMI. BG readings (after PN initiation) will be recorded from the patient chart. The primary outcome is percentage of BG readings within 70-180mg/dL.

Results:

Results:

Conclusions:

Conclusions:

Presentation Objective: List some challenges of managing PN-induced hyperglycemia. **Self-Assessment:** What are some pharmacokinetic differences between regular and aspart insulin?

Presentation Objective: To identify areas of improvement with regards to sliding scale insulin used among inpatients in non-critical care areas. **Self-Assessment:** Will the addition of basal insulin to sliding scale insulin protocols result in more blood glucose levels below 140mg/dL as recommended by the American Diabetes Association?

11:40

Room I

IM

11:40

Room J

IM

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF A RISK EVALUATION AND MITIGATION STRATEGY PROGRAM FOR ERYTHROPOIESIS STIMULATING AGENTS IN CANCER PATIENTS
Dana Walters, Doug Bailey
Fort Sanders Regional Medical Center - Knoxville, TN

Purpose/Background: Erythropoiesis stimulating agents (ESAs) have been shown to increase the risk of tumor growth and shorten survival when used in cancer patients. To ensure that patients are aware of this potential risk, the U.S. Food and Drug Administration has initiated a risk evaluation and mitigation strategy (REMS) program called ESA APPRISE (Assisting Providers and cancer Patients with Risk Information for the Safe use of ESAs). ESA APPRISE requires that patients who are to be treated with ESAs for chemotherapy induced anemia receive education by a registered health care professional and sign an acknowledgement form. This study will evaluate implementation and compliance with this program. Failure to comply with ESA APPRISE can result in suspension of access to ESAs for both the prescriber and the hospital.

Methodology: The health system's electronic database will be used to extrapolate data from July, 2010 to determine the impact of initiation of this program. A policy and a standardized order set will be developed and approved for use in patients receiving these medications. Health care providers registered to prescribe ESAs for chemotherapy induced anemia will be educated regarding the study, the use of standardized order set, the need for compliance, and the consequences of non-compliance. Pharmacy staff will be instructed to accurately evaluate and enforce the standardized order set. Computer databases will be utilized to assess physician compliance with patient education and order form usage.

Results:

Conclusions:

Presentation Objective: Explain the process of implementing a REMS program. **Self-Assessment:** How can pharmacists impact the implementation of a REMS?

11:40

OLY 1

MUS

COMMUNITY PHARMACIST'S TARGETED INTERVENTION TO PROMOTE STATIN ADHERENCE WITH COPAY REDUCTION AND EDUCATION
Jacqueline H Siers, Russell Segreaves, Liza Chapman, Sukhmani Sarao
University Of Georgia College Of Pharmacy - Athens, GA

Purpose/Background: To reduce the cost of statin medications and provide education on coronary heart disease in order to improve the adherence rate of statin medication use in patients who are noncompliant with therapy due to cost concerns.

Methodology: Eligible participants were identified by evaluating refill history using pharmacy software and were between the ages of 18 and 80-years-old, who were currently on a statin medication, < 80% compliant with current statin therapy, paid at least \$25 a month for statin and identified cost as a reason for noncompliance.

Results: Thirty-five eligible patients were identified. Of these, 17 (48%) patients did not want to take part in this project due to varying reasons with the majority (53%) being that the patient wanted to remain on their current statin therapy. Nine (25.7%) patients agreed to be part of the project and of these, three patients' physicians denied the approval for a change in therapy. The remaining six patients' refill adherence and perceived adherence were measured over three months following statin change. Their cholesterol panels were analyzed in the pharmacy to ensure there were no negative effects in cholesterol from changing to a less potent agent.

Conclusions: Community pharmacists have an opportunity to help improve statin adherence by making suggestions to reduce factors leading to noncompliance such as cost.

Presentation Objective: Evaluate a noncompliant patient's adherence rate to a statin medication after the factors leading to noncompliance has been reduced. **Self-Assessment:** What role can community pharmacists play in improving statin adherence?

11:40

OLY 2

CP

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

USE OF PHYTONADIONE TO REDUCE INR VARIABILITY IN PATIENTS ON LONG-TERM WARFARIN THERAPY
Carla Leto, To-Nga Huynh, Betty Prihar, Brian Zilka, Phil Foulis
James A. Haley Veterans Hospital - Tampa, FL

Purpose/Background: Anticoagulation with warfarin is key in preventing thrombosis in high risk patients. However, warfarin requires frequent monitoring of INR due to its very narrow therapeutic index and multiple drug and food interactions. Phytonadione (Vitamin K) is a vitamin co-factor responsible for the enzymatic activation of clotting factors II, VII, IX, X. This study will investigate if supplementation with phytonadione will reduce INR variability and decrease the incidence of serious bleeding complications or thromboembolic events in patients taking warfarin.

Methodology: The study is a prospective, open-label trial that will include 370 patients referred to the James A. Haley VA anticoagulation clinic for warfarin monitoring who meet the inclusion/ exclusion criteria. Inclusion criteria include patients newly started on warfarin therapy, 18 years of age or older, and require warfarin therapy for at least 6 months. The 185 patients in the control group will take warfarin alone, and the 185 patients in the investigation group will take warfarin and phytonadione 200mcg by mouth daily. Patients will be followed for 6 months from the time of enrollment. The amount of time spent in the therapeutic INR range and the number of adverse events from bleeding or thrombosis will be compared between the two groups.

Results:

Conclusions:

Presentation Objective: To review the role of vitamin K in managing INR in patients taking warfarin. **Self-Assessment:** What have previous studies investigating the effect of vitamin K on INR stabilization shown?

11:40

PARTH 1

AMB

IMPACT OF THE IMPLEMENTATION OF AN ASTHMA ACTION PLAN BY A PHARMACIST ON THE RECURRENCE OF EMERGENCY DEPARTMENT VISITS
Mary Katherine Brown; Karen Curzio; John Patka; Gina Ryan; Todd Berger
Grady Health System - Atlanta, GA

Purpose/Background: Asthma action plans have been identified as an important part of asthma care, according to the National Heart, Lung and Blood Institute (NHLBI) asthma guidelines. However, the implementation of action plans is frequently lacking. This study is designed to determine the impact of the implementation of a written asthma action plan, developed by clinical pharmacists, on recurrent Emergency Department (ED) visits related to asthma.

Methodology: Patients admitted to the ED at Grady Health System (GHS) for an asthma exacerbation will be included if they have been treated at least once within the previous 60 days for an asthma exacerbation at GHS. Included patients will receive an asthma action plan, including education on inhaler technique and medication counseling before being discharged. The patient will then be followed for 60 days after discharge to determine the number of recurrent ED visits, related to asthma, at GHS. The study period will extend from January 24, 2010 to May 31, 2011. The primary outcome is the number of GHS ED visits related to asthma within 60 days after receiving an asthma action plan from a clinical pharmacist.

Results:

Conclusions:

Presentation Objective: Asthma action plans have been shown to decrease hospitalizations, however are often underutilized. **Self-Assessment:** An asthma action plan consists of:

- patient specific maintenance medications.
- peak flow guides for the use of rescue medications.
- directions for use of rescue medications.
- all of the above

11:40

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

THE IMPACT OF QUETIAPINE ON SEDATION OUTCOMES IN AGITATED CRITICALLY ILL PATIENTS

Karly L. O'Brien, Aimée C. Leclair, Darwin Ang
Shands Teaching Hospital At UF - Gainesville, FL

Purpose/Background: In the last decade, intensive care unit (ICU) delirium has gained recognition as a cause of morbidity and mortality during and after ICU stay. Haloperidol is the guideline-recommended therapy, but more recent literature has investigated the use of atypical antipsychotics for delirium treatment. Agitation, a symptom of delirium, is a common event in the critically ill, occurring in approximately 70 percent of patients. In recent years, quetiapine has been utilized at Shands at UF for the treatment of agitation in ICU patients, as defined by the Riker Sedation Agitation Scale (SAS). This institution does not currently screen for delirium. Therefore, this study was designed to evaluate the impact of quetiapine versus scheduled haloperidol administration on agitation in critically ill patients.

Methodology: This retrospective study was designed to analyze 41 subjects in each group. Eligible patients were all adult ICU patients who received quetiapine or scheduled haloperidol and did not meet exclusion criteria, which included patients less than 18 years of age, concomitant use of scheduled quetiapine and haloperidol, concurrent use of other antipsychotics, pre-existing psychiatric illness, and home antipsychotic use. The primary endpoint was time, in hours, to first resolution of delirium, defined as an SAS less than five. Secondary endpoints include agitation free days, total time spent agitated, and duration of quetiapine or haloperidol administration.

Results:

Conclusions:

Presentation Objective: Discuss the use of quetiapine for the treatment of agitation in the critically ill. **Self-Assessment:** Why is it important to treat agitation in critically ill patients?

1:20

Room A

CCM

ABSTRACT REPRODUCTION FORM

UTILIZATION OF PROCALCITONIN TO GUIDE ANTIBIOTIC THERAPY IN CRITICALLY ILL PATIENTS

Renee Bogdan, Tanna Cooper
Medical University Of South Carolina - Charleston, SC

Purpose/Background: Data suggests that use of procalcitonin to guide antibiotic therapy may reduce the duration of exposure without affecting mortality in critically ill patients with sepsis or pneumonia. However, this data has not been demonstrated in routine clinical use within a US hospital system. Recently, the Medical University of South Carolina (MUSC) implemented protocols for the use of procalcitonin for hospital-acquired pneumonia and intra-abdominal sepsis. The purpose of this study is to assess clinical outcomes including safety and efficacy with procalcitonin as used at MUSC.

Methodology: This study is a prospective observational analysis with a parallel matched control. All adult patients in the medical and medical-surgical intensive care units (ICU) from November 2010 through March 2011 receiving broad spectrum antibiotics for at least 24 hours will be included. The intervention group will include those patients who had procalcitonin level(s) drawn during their ICU stay and the control group will be those who did not have a procalcitonin level drawn. The primary endpoint will be to assess days of antibiotic exposure. Secondary endpoints will include ICU length of stay, hospital length of stay, relapse of infection, development of a new infection including multidrug resistant and clostridium difficile, ICU mortality, inpatient 28-day mortality, cost, duration of mechanical ventilation, and adherence to procalcitonin protocols.

Results:

Conclusions:

Presentation Objective: Determine if procalcitonin is a safe and effective biomarker for antibiotic de-escalation. **Self-Assessment:** Is procalcitonin a safe and effective biomarker for antibiotic de-escalation?

1:20

Room B

CCM

ABSTRACT REPRODUCTION FORM

RETROSPECTIVE REVIEW OF ANTIBIOTIC PRESCRIBING FOR UPPER RESPIRATORY TRACT INFECTIONS IN AN AMBULATORY VETERAN POPULATION

Angela Damon-Jackson, Jennifer Mitchell, Christina Clarke, Dorothy Jenrette
Ralph H. Johnson VA Medical Center - Charleston, SC

Purpose/Background: The purpose of this study is to determine whether providers follow published guidelines for the treatment of upper respiratory tract infections in an ambulatory veteran population. The development of antibiotic resistance is a major concern for both the community and world wide. A major contributor to resistance is the inappropriate use of antibiotics. A large portion of antibiotic prescribing occurs in the ambulatory care setting for the treatment of upper respiratory tract infections (URTIs). According to published guidelines, treatment of URTIs rarely require antibiotics.

Methodology: A medication use evaluation was performed consisting of an ICD-9 database evaluation to identify potentially eligible patients followed by a medical record review. ICD-9 encounter data of 400 veterans enrolled at the Ralph H. Johnson VA Medical Center or associated clinics between November 1, 2010 and January 31, 2011 was included in the study. We determined whether a group of primary care and emergency department providers followed published guidelines from the Center for Disease Control and Prevention, American College of Chest Physicians, Infectious Disease Society of America, and American Academy of Otolaryngology-Head and Neck Surgery Foundation for the treatment of URTIs. Individual differences among the providers based on location were also determined. Finally, first and second line treatment options were delineated by group and location.

Results:

Conclusions:

Presentation Objective: Identify key treatment recommendations for upper respiratory tract infections. **Self-Assessment:** Is there a need to establish a pharmacist-based educational intervention for the treatment of upper respiratory tract infections in an ambulatory care setting? angela.damon-jackson2@va.gov

1:20

Room C

ID

ABSTRACT REPRODUCTION FORM

THE IMPLEMENTATION OF BETA LACTAMS EXTENDED-INFUSION PROTOCOLS IN AN ACUTE CARE COMMUNITY TEACHING HOSPITAL

Jenny Martinez
Palmetto General Hospital - Miami, FL

Purpose/Background: The emergence of multidrug resistant organisms combined with the limited new antibiotics introduced in the market has prompted the Infectious Diseases Society of America (IDSA) to publish guidelines for optimizing antimicrobial use. The optimization of antimicrobials pharmacokinetic and pharmacodynamic profile is an important component of antimicrobial stewardship. The purpose of this study is to implement Beta-Lactams extended-infusion protocols as part of our hospital's stewardship program development. Piperacillin-Tazobactam was the first antibiotic that our institution selected for extended infusion (4 hours). The next step was the addition of Doripenem to the extended infusion protocol.

Methodology: A protocol for the extended infusion of Piperacillin/Tazobactam was created. A proposal describing the rationale, benefits, cost savings, as well as therapeutic interchange recommendation for the new regimen was presented to Pharmacy and Therapeutics, Executive Medical Committee and Anti-Infective P&T Subcommittee for approval. Educational lectures were performed for medical and nursing staff to increase the awareness of the prevalence of resistance and the need for dose optimization of beta lactams as a potential way to improve healthcare outcomes. A cost saving analysis associated with the implementation of an EI-PT was conducted.

Results:

Conclusions:

Presentation Objective: To discuss the implementation process of Beta-Lactams extended-infusion protocols at Palmetto General Hospital. **Self-Assessment:** Will the extended-infusion of beta-lactams impact stewardship practices on improving antimicrobial use and minimizing resistance at Palmetto General Hospital?

1:20

Room D

ID

ABSTRACT REPRODUCTION FORM

RELATIVE DOSE INTENSITY AND AVERAGE RELATIVE DOSE INTENSITY OF CHOP AND R-CHOP REGIMENS IN LYMPHOMA PATIENTS
Maegan S. Boyd And Kathleen Bellard
Sacred Heart Hospital - Pensacola, FL

Purpose/Background: Determine the relative dose intensity (RDI) and average relative dose intensity (ARDI) of CHOP and R-CHOP regimens used in diffuse large B-cell lymphoma (DLBCL) patients at our outpatient chemotherapy infusion center.

Methodology: Eligible patients were ≤ 18 years old, had a diagnosis of DLBCL, scheduled for CHOP or R-CHOP every 21 days for at least 3 cycles, and must have started and completed the regimen between January 2007 and December 2010. An RDI for doxorubicin and an ARDI for the regimen was calculated based on what the patient actually received. We identified patients with a doxorubicin RDI $<75\%$ and a regimen ARDI $<90\%$.

Results: Thirty-one patients were included in the retrospective, IRB-approved study. Five of the 31 patients received suboptimal RDI for doxorubicin. Four of the 31 patients received suboptimal ARDI for the regimen. This translates into a 13-45% chance that patients will receive a suboptimal RDI or ARDI.

Conclusions: We determined a baseline for our practice. We discovered that the chance of suboptimal therapy is widely variable. We identified several modifiable ways to improve therapy in the future.

Presentation Objective: Explain the concepts of RDI and ARDI and describe how each can affect patient outcomes. **Self-Assessment:** What is an objective way to determine the outcome of a patient based on the amount of chemotherapy received?

1:20

Room I

ONC

ABSTRACT REPRODUCTION FORM

EVALUATION OF A THERAPEUTIC DRUG MONITORING GUIDELINE FOR FOSPHENYTOIN, PHENYTOIN, AND PHENOBARBITAL IN THE PICU
Julie H. Cash And Erika W. Clark
Palmetto Health Richland PGY1 Pharmacy - Columbia, SC

Purpose/Background: Fosphenytoin, phenytoin, and phenobarbital are antiepileptics that require therapeutic drug monitoring (TDM) because of inter-patient variability in pharmacokinetics and narrow therapeutic index. For patients in the pediatric intensive care unit, monitoring of these drugs is important because it may be more difficult to determine an appropriate dose considering underlying clinical condition and differences in pharmacokinetics in critically ill children. The objective of the current study is to evaluate a therapeutic drug monitoring guideline for fosphenytoin, phenytoin, and phenobarbital in order to eliminate levels drawn at inappropriate times and unnecessary levels drawn.

Methodology: This is a retrospective, observational review of patients in the Pediatric Intensive Care Unit at Palmetto Health Children's Hospital. A chart review will be conducted for dates prior to and after TDM guideline implementation. All subjects will be screened for study inclusion to a goal of 50 serum drug levels ordered before and after TDM guideline implementation. Patients will be excluded if they have severe hepatic or renal insufficiency and patients who are taking fosphenytoin, phenytoin, or phenobarbital for indications other than seizures. The primary endpoint to be evaluated is the proportion of serum drug levels drawn at the appropriate time. The secondary endpoint will evaluate the appropriateness for indications for levels.

Results: Pending.

Conclusions: Pending.

Presentation Objective: Describe the potential benefits of a therapeutic drug monitoring guideline and how it may impact the proportion of serum drug levels drawn at inappropriate times.

Self-Assessment: What are the most important considerations when evaluating serum drug levels?

1:20

Room J

PED

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF A STANDARDIZED INPATIENT WARFARIN PROTOCOL
Leah Newton, Brea Rowan
Princeton Baptist Medical Center - Birmingham, AL

Purpose/Background: The Joint Commission National Patient Safety Goal 03.05.01 addresses safety concerns with anticoagulant therapy by establishing performance elements that all institutions are required to meet. Among those is a mandate that a written protocol be used for inpatient initiation and maintenance of anticoagulant therapy, including warfarin. The purpose of this project was to develop and implement a standardized, medical staff-approved protocol based on best practice guidelines and to assess its impact on the initiation and adjustment of warfarin.

Methodology: A two-phase retrospective chart review of warfarin administration was conducted in patients who were ≤ 18 years of age with a diagnosis of deep vein thrombosis (DVT), pulmonary embolism (PE), or atrial fibrillation and who were warfarin-naïve. Control data was collected from January 2010 through May 2010. A protocol was developed and submitted to the Pharmacy and Therapeutics Committee for approval. It was then implemented in January 2011 and the medical staff was educated. Post-implementation data will be collected from February 2011 through April 2011. Comparator data includes the following: (1) appropriate initial dose and first-dose adjustment; (2) incidence of supratherapeutic international normalized ratios (INRs); and, (3) incidence of bleeding.

Results:

Conclusions:

Presentation Objective: Describe the impact of a standardized protocol on the initiation and adjustment of warfarin therapy in patients who are naïve to treatment. **Self-Assessment:** What aspect(s) of a standardized protocol has the most impact on warfarin administration and dose adjustment?

1:20

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

EXTENSION OF THE DIRECT PATIENT CARE PHARMACIST MODEL TO AN INPATIENT REHABILITATION UNIT OF A COMMUNITY TEACHING HOSPITAL
Molly Topp, Melissa Blair, And Laurie Whalin
New Hanover Regional Medical Center PGY1 Pharmacy - Wilmington, NC

Purpose/Background: Primary objective is to determine if pharmacy services in a rehabilitation unit will improve patient care by identifying and documenting the occurrence of drug-related problems and recommending therapy changes. Secondary objectives are to expand the scope of patient and nursing education and show the cost benefit of pharmacy services.

Methodology: Rehabilitation patients were followed by a pharmacist who utilized prospective reviews to identify drug-related problems and provided pharmacy consults. Nursing education, discharge education, and drug information answers were provided. All interventions were documented and categorized. Once all documentation was compiled, assessment of where pharmacy services had the most impact was made. A cost benefit analysis was performed by assigning predetermined dollar values on various interventions. Potentials for Medicare reimbursement were also identified.

Results: Thirty-five charts were prospectively reviewed in 13 days. Pharmacy increased patient care by resolving 25 dosing issues, 22 clarifications, and 9 allergies showing a cost savings of \$17,485. Additionally, 15 patients were counseled, 15 drug information questions were answered, seven interdisciplinary rounds were attended, and a nursing in-service was presented. It was estimated that pharmacy services would save about \$400,000 a year before a pharmacist salary was subtracted. It was also determined that 14% of pharmacy services could potentially be reimbursed through medication therapy management.

Conclusions: A direct patient care pharmacist is warranted in an inpatient rehabilitation unit.

Presentation Objective: To determine if a direct patient care pharmacist is warranted in an inpatient rehabilitation unit **Self-Assessment:** How will pharmacy services benefit an inpatient rehabilitation unit?

1:20

OLY 2

GER

ABSTRACT REPRODUCTION FORM

EFFECT OF STATIN USE ON RENAL ALLOGRAFT FUNCTION
 Rola Franks; Erika Meredith; Helen Triemer; Antonio Guasch;
 Emory University Healthcare - Atlanta, GA

Purpose/Background: Although immunosuppressive therapy has improved the rate of acute rejection in renal transplant patients, it is associated with nephrotoxic and cardiotoxic side effects that adversely affect long term renal allograft function and survival. Recent studies have demonstrated that statins may have a role in improving renal function in chronic kidney disease. Few studies have looked at that effect in renal transplant patients. Studying the role of statins in renal transplant patients is vital, since none of the available therapies to date have been shown to improve long term renal allograft function in transplant patients. If indeed statins do improve renal allograft function, they should be used in renal transplant patients regardless of their cardiovascular risk.

Methodology: This is a retrospective, nonrandomized study of the effects of statin therapy in kidney transplant patients at Emory University Hospital in Atlanta, Georgia. Patients transplanted between January 2006 and August 2009 are included. Patients are divided into two groups. Group A includes patients who received statin therapy within 6 months post transplant and were still taking statins at last follow-up. Group B includes patients who did not receive statin therapy at any time during the study period. The primary outcome measure is change in SCr from nadir post transplant to last follow-up. Secondary outcome measures include allograft survival, cardiac events and patient survival.

Results:

Conclusions:

Presentation Objective: To determine the effect of statin therapy on renal allograft function.

Self-Assessment: What are some of the benefits of statin therapy following renal transplant?

1:20

PARTH 1

TRP

ABSTRACT REPRODUCTION FORM

IMPACT OF A PHARMACIST-ADMINISTERED TELEPHONE INTERVENTION PROGRAM AFTER DISCHARGE ON HOSPITAL READMISSION RATES
 Jeffrey Tingen, Philip Rodgers, Lawrence Greenblatt
 Duke University Hospital- PGY2 Amb. Care - Durham, NC

Purpose/Background: Pharmacists are trained to identify and resolve medication-related problems. Medication-related problems are likely to occur as patients are transitioning between healthcare settings. Several studies have demonstrated the significance of pharmacist interventions at discharge to reduce preventable adverse drug events after discharge, hospital readmissions, and return visits to the emergency department. Additionally, some studies have looked into pharmacist post-hospital discharge interventions as part of a larger post-hospital discharge system but few have looked at pharmacist-only based interventions.

Methodology: The study was approved by the Duke University Hospital Institutional Review Board and is a prospective, single-center, comparative study evaluating if telephone interventions made by pharmacists reduce readmission rates and identify medication-related problems. Eligible subjects will be contacted by a study pharmacist via telephone 48-72 hours after they are discharged from the hospital. The study pharmacist will provide medication counseling, perform medication reconciliation, and identify and attempt to resolve any identified medication-related problems. Data collection will include: hospital admission information, hospital discharge medications, number of high-alert medications (as defined by Institute of Safe Medical Practice's List of High-Alert Medications), documentation of any medication related problem, category of identified medication-related problem(s), and record of any hospitalization or emergency room visit within 30 or 60 days after index hospitalization at the institution.

Results:

Conclusions:

Presentation Objective: To describe how a pharmacist-administered telephone intervention program can affect patient care in the ambulatory clinic setting. **Self-Assessment:** What benefits would my clinical practice obtain as a result of a pharmacist-administered telephone intervention program after hospital discharge?

1:20

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

EVALUATION OF A SEDATION PROTOCOL IN THE INTENSIVE CARE UNIT OF A COMMUNITY TEACHING HOSPITAL
 Majda Al-Attas And Ann Kathryn Craig
 Columbus Regional Healthcare System - Columbus, GA

Purpose/Background: Sedatives are commonly provided to manage intensive care unit (ICU) patient's distress, anxiety, and agitation. The American College of Critical Care Medicine/Society of Critical Care Medicine recommend use of a sedation protocol and/or sedation scales with daily sedation holidays to guide sedation therapy and minimize sedative complications. A protocol was created which incorporated both of these components. The objective is to standardize care, in order to provide adequate sedation and early extubation. The purpose of this study is to determine the effect of a sedation protocol on the duration of mechanical ventilation and sedative use.

Methodology: 120 adult patients requiring mechanical ventilation and sedation in the ICU will be evaluated before and after protocol implementation. The primary end point is to compare the mean duration of mechanical ventilation before and after protocol implementation. The secondary end point is to compare the mean cumulative total sedative use during mechanical ventilation before and after protocol implementation.

Results:

Conclusions:

Presentation Objective: Identify methods to improve sedative use in the ICU setting. **Self-Assessment:** What intervention can a pharmacist make to potentially minimize sedation complications?

1:40

Room A

CCM

ABSTRACT REPRODUCTION FORM

SURVEY OF HEPARIN-INDUCED THROMBOCYTOPENIA (HIT) LABORATORY TESTING AND EVALUATION OF A MODIFIED "4-T'S" SCORING SYSTEM
 Wesly Pierce, Joseph Mazur, Charles Greenberg, And John Lazarchick
 Medical University Of South Carolina - Charleston, SC

Purpose/Background: Over-diagnosis of heparin-induced thrombocytopenia (HIT) in the ICU results in costly and unnecessary laboratory screening and treatment with direct thrombin inhibitors. Our aim was to characterize our current treatment practices in suspected HIT and to evaluate the predictive utility of a 4-T's scoring system that incorporates D-dimer values.

Methodology: This retrospective review will collect data from January 2009 through June 2010 to include patients who had a platelet factor 4 (PF4) assay drawn while in an ICU. Data collected will consist of patient demographics, PF4 assay/serotonin release assay (SRA) results, platelet counts, heparin exposure, clinical course and outcome, thrombotic events, and prescribed medications.

Results: Preliminary data indicate that of the 94 patients reviewed, only 12 (11.4%) were PF4-positive. Of those, 1 (2.3%) was SRA-positive for HIT. Heparin was discontinued in only 63.4% of patients. In PF4-positive patients, the mean 4-T's score was 4.18 with a mean optical density of 1.26. There were 3 patients who were PF4-positive and had thrombosis. The 4-T's score was 6 or greater in those cases.

Conclusions: Our modified 4-T's scoring system appears to be effective in predicting HIT and related thromboses in the ICU. Clinical protocols and education encouraging the proper identification and treatment of suspected HIT need to be established.

Presentation Objective: To characterize our current treatment practices in suspected HIT and evaluate the predictive utility of a 4-T's scoring system that incorporates D-dimer values. **Self-Assessment:** What is the pharmacist's role in properly identifying and treating suspected HIT?

1:40

Room B

CCM

ABSTRACT REPRODUCTION FORM

EVALUATING THE EFFECT OF PHYSICAL DISTANCE TO A HEALTHCARE SPECIALIST ON ADHERENCE AND VIRAL LOAD IN HIV AND AIDS PATIENTS
Katherine Hoover, Dorothy Jenrette, Anne Rahjten, Preston Church
Ralph H. Johnson VA Medical Center - Charleston, SC

Purpose/Background: The purpose of this study is to determine if physical distance to an infectious disease clinic influences medication adherence, visit compliance, and viral load in veterans with HIV/AIDS. Medication non-adherence to highly active antiretroviral treatment (HAART) in HIV and AIDS patients is a complex issue encompassing physical, social and psychological factors. Non-adherence to HAART leads to treatment failure, viral resistance and ultimately poorer outcomes in HIV and AIDS patients.

Methodology: Patients were enrolled in the study if they were prescribed HAART by a physician and maintained care in the HIV clinic for 365 days following enrollment. The study period lasted 365 days from the date of the first HAART medication fill by the VA Pharmacy. Medication refill history, visit compliance and viral load were extracted from the electronic medical record. Medication adherence was quantified using medication possession ratio. Visit compliance was assessed by the number of times a patient attended a clinic appointment within one year. Patients were stratified as partially fully compliant : 2 or more attended appointments or non-compliant : 0-1 attended appointments. Viral load was measured as mean change over the study period.

Results:

Conclusions:

Presentation Objective: Identify key factors influencing adherence to HAART in HIV and AIDS patients. **Self-Assessment:** Explain the relationship between physical distance to an infectious disease clinic and medication adherence.

1:40

Room C

ID

ABSTRACT REPRODUCTION FORM

DESCRIPTIVE STUDY OF THE TIME FROM SEPSIS DIAGNOSIS TO ANTIBIOTIC ADMINISTRATION, ANTIBIOTIC APPROPRIATENESS AND MORTALITY
Marie-Eve Arseneault, Ali Mazinani, Judy Tseng, Donna Lee Wilson, Manuel Soto
South Miami Hospital - Miami, FL

Purpose/Background: The surviving sepsis campaign recommends that broad-spectrum antibiotic therapy be administered within one hour of diagnosis of sepsis, septic shock and severe sepsis. Studies have shown that this can significantly improve mortality. It is also recommended that antibiotic therapy be reassessed with microbiology data to prevent resistance. The purpose of the study was to determine the relationships among time period between diagnosis and antibiotic administration, antibiotic appropriateness and mortality.

Methodology: The IRB approved study included patients 18 years and older admitted from January 2010 to January 2011 with a diagnosis of sepsis, severe sepsis or septic shock. All patients included were treated using the Sepsis Bundle Order. Patients were excluded if they did not receive antibiotics or did not have a culture performed. A limited data set was used to collect information regarding diagnosis and mortality. Retrospective chart review was used to collect data such as cultures and antibiotic orders. The time from diagnosis to administration of antibiotics was documented. The appropriateness of antibiotics was determined based on culture and sensitivity reports and also antibiotic spectrum of coverage. The data was then divided into two groups to compare whether there was a correlation between choice and timing of antibiotic therapy and patient mortality.

Results:

Conclusions:

Presentation Objective: Review the correlation between choice and timing of antibiotic therapy and patient mortality. **Self-Assessment:** When are cultures indicated in septic patients?

1:40

Room D

ID

ABSTRACT REPRODUCTION FORM

ASSESSMENT OF A PAIN MANAGEMENT INITIATIVE IN ADULT ONCOLOGY/HEMATOLOGY PATIENTS
Amber S. Draper, Barry Diamond
University Of Alabama Hospital - Birmingham - Birmingham, AL

Purpose/Background: The purpose of this study is to assess the outcomes of a pain management initiative encompassing physician and nursing education about pain assessment and documentation, opioid dosing and titration, and management of opioid side effects among oncology/hematology patients at UAB Hospital.

Methodology: A pain management initiative based on the National Comprehensive Cancer Network (NCCN) and American Society of Clinical Oncology (ASCO) supportive care guidelines will be initiated on the oncology/hematology inpatient ward to include all patients admitted between January 1, 2011 and March 1, 2011. The pain initiative consists of physician and nursing education about pain assessment, opioid dosing and scheduling, and dose titrations. The initiative includes an opioid dosing algorithm to be used as a guide to optimal dosing of pain therapy. Pain assessment and documentation data will be collected after implementation of the above initiative and compared to a historical control group of oncology/hematology patients from October 1 November 30, 2010.

Results:

Conclusions:

Presentation Objective: Despite the complexity, cancer pain can be effectively treated in most patients with appropriate, patient-centered pharmacologic therapy in conjunction with physician and nursing education. **Self-Assessment:** An optimal pain regimen should consider which four factors? Choice of opioid, breakthrough dosing, opioid rotation, and side effect management

1:40

Room I

ONC

ABSTRACT REPRODUCTION FORM

CREATION OF A VANCOMYCIN DOSING NOMOGRAM TO ACHIEVE TARGET TROUGH CONCENTRATIONS IN A CHILDREN S HOSPITAL
Jaime Walker, Jennifer Bair, Stefanie Plexico, And Robert Daniels
Palmetto Health Richland PGY2 Peds. - Columbia, SC

Purpose/Background: Vancomycin is a glycopeptide antibiotic used to treat resistant gram positive infections in neonates, infants and children. Tertiary references suggest doses between 10-15 mg/kg/dose at intervals based on age to achieve therapeutic trough concentrations and facilitate adequate treatment. Conventional dosing regimens typically yield serum trough concentrations of 5 to 20 mcg/ml in patients with adequate renal function. The recent adult vancomycin dosing guidelines recommend trough concentrations be maintained above 10 mcg/ml to avoid development of resistance. A study in pediatric oncology and transplant patients by Piro et al demonstrated that doses of vancomycin of 45 mg/kg/day produced serum trough levels < 10 mcg/ml in the majority of the patients studied. Studies in the general pediatric, pediatric intensive care, and neonatal populations are currently unavailable.

Methodology: This retrospective, exploratory, observational study will collect data on patients that were admitted to Palmetto Health Children s Hospital between January 1, 2009 and December 31, 2009. The following parameters will be evaluated: gender, weight, postnatal age, gestational age (if applicable), height, vancomycin indication, dose and frequency, serum trough level, timing of serum trough collection, baseline serum creatinine, serum creatinine immediately following serum trough levels, pre-existing renal condition, and concomitant nephrotoxic medications. The primary outcome of this study is to determine the average dose required to obtain a therapeutic trough level of vancomycin, with the intention of developing an empiric vancomycin dosing guide.

Results:

Conclusions:

Presentation Objective: Describe why higher doses of vancomycin are needed empirically in pediatric patients. **Self-Assessment:** Jaime.walker@palmettohealth.org

1:40

Room J

PED

ABSTRACT REPRODUCTION FORM

EVALUATION OF STATIN USE IN THE HIV/AIDS VETERAN POPULATION: A RETROSPECTIVE REVIEW

Katayoun Zanganeh, Osatohanmen Enogieru
Florida A & M University - Miami, FL

Purpose/Background: Farrugia et al illustrates the relationship between HIV infection, antiretroviral drugs and increased risk in lipid abnormalities and cardiovascular disease. ARVs known to worsen the lipid panel (protease inhibitors, nucleotide reverse transcriptase inhibitors, non-nucleoside reverse transcriptase inhibitors) are frequently used agents. Currently, simvastatin, lovastatin and fluvastatin are the formulary statins used for the treatment of hypercholesteremia at the Miami VA hospital. However, the 2009 DHHS guidelines recommend avoiding concurrent use of simvastatin and lovastatin with ARVs to prevent CYP P450 drug-drug interactions and subsequently adverse reactions. The primary objectives include evaluating the effectiveness (percentage of patients with low-density lipoprotein, total cholesterol, triglycerides, and high-density lipoprotein at goal) and safety (rate of adverse reactions) of individual statins (formulary and non-formulary statins [pravastatin, atorvastatin, rosuvastatin]). The secondary objective is to evaluate and compare previous (2006) and current (2010) prescribing patterns for the use of statins in HIV/AIDS patients.

Methodology: Pertinent data (patient demographics, medications, liver function tests/creatinine kinase, lipid panel, etc) was collected on all eligible subjects (i.e. HIV/AIDS patients concomitantly using ARVs and a statin and patients seen by special immunology clinic at least three times between January 2011 and January 2010).

Results:

Conclusions:

Presentation Objective: Evaluate and rank the statins according to their individual effectiveness and safety in HIV/AIDS veterans taking highly active antiretro viral therapy (HAART) **Self-Assessment:** Which statin would be the best option to use in HIV/AIDS patients taking highly active antiretroviral therapy?

1:40

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

FALLS PREVENTION STUDY: SELECTED BEERS CRITERIA REVIEW IN A COMMUNITY HOSPITAL

Dina Savenkova, Michele Loudy, Maryam Qazizada, Charzetta James
St. Vincent's Medical Center - Jacksonville, FL

Purpose/Background: The Beers criteria is a list of medications that are considered to be potentially inappropriate for use in the elderly. The primary objective of this study is to compare the rate of falls in patients before and after pharmacy recommendations for medication adjustments are provided based on a selected Beers criteria recommendation list.

Methodology: The selected Beers criteria review was developed by analyzing the published Beers criteria and selecting medications with sedative and anticholinergic properties that may be associated with an increased falls risk. This list includes chlordiazepoxide, diazepam, temazepam greater than 15 mg per day, alprazolam greater than 2 mg per day, lorazepam greater than 3 mg per day, scheduled diphenhydramine, amitriptyline, hydroxyzine, cyclobenzaprine, methocarbamol, carisoprodol, and orphenadrine.

The study consists of two parts: a retrospective chart review and a prospective implementation study. In the retrospective chart review, subjects who were administered at least one selected Beers criteria drug during a three month period were identified. The prospective implementation study identified subjects with at least one selected Beers criteria drug ordered. A medication recommendation that outlines the selected Beers criteria drugs and recommends alternative therapy for each drug was then placed in the patient chart.

Results:

Conclusions:

Presentation Objective: According to the Beers Criteria, list common drugs that should not be used in patients 65 years and older. **Self-Assessment:** What is the daily amount of lorazepam, alprazolam, and temazepam that should not be exceeded in patients 65 year and older?

1:40

OLY 2

GER

ABSTRACT REPRODUCTION FORM

EVALUATING ALEMUTUZUMAB DOSING AND ADVERSE EFFECTS IN KIDNEY TRANSPLANTATION: A RETROSPECTIVE ANALYSIS

Jeryl Villadolid, Kevin Cooper, James Norton
Carolinas Medical Center - Charlotte, NC

Purpose/Background: The use of antibodies directed against lymphocyte antigens has been implemented in renal transplantation to prevent early post-transplant allograft rejection and to allow a reduction of conventional maintenance immunosuppression. Alemtuzumab is a humanized anti-CD52 monoclonal antibody approved for the treatment of chronic lymphocytic leukemia and used as induction therapy in renal transplantation. Studies have examined various induction regimens with alemtuzumab in both fixed and weight-based doses; however the optimal dosing regimen to achieve sustainable immunosuppression while minimizing the risk for infection has not been defined. The objective of this study is to determine whether alemtuzumab induction therapy administered to renal transplant recipients is associated with weight-based, dose-related adverse effects.

Methodology: A retrospective review of patients who received a renal transplant with alemtuzumab induction therapy between January 2008 and December 2009 with a minimum follow-up of one year will be conducted. All included patients will have received the current standard protocol of a single 30 milligram induction dose of alemtuzumab given with a calcineurin inhibitor and mycophenolic acid. The 30 milligram dose of alemtuzumab will be divided by each patient's induction weight in kilograms to determine a weight-based dose. Patient records will be assessed to examine the potential relationship between weight-based immunosuppression and incidence of primary outcomes which include rates of infection, cell-mediated or antibody-mediated graft rejection, and leukopenia.

Results:

Conclusions:

Presentation Objective: Describe the role of alemtuzumab as induction therapy in renal transplant. **Self-Assessment:** What are potential adverse effects of alemtuzumab as induction therapy in renal transplant?

1:40

PARTH 1

TRP

ABSTRACT REPRODUCTION FORM

PROTOCOL FOR BISPHOSPHONATE THERAPY FOLLOWING HIP FRACTURES

Mary M. Hall, Christine E. Grogan, And John Hoeldtke
Bay Pines Va Medical Center - Bay Pines, FL

Purpose/Background: Hip fractures account for approximately 300,000 hospitalizations in the U.S. annually. Patients who have experienced a hip fracture have an increased risk for death, especially during the first year following the fracture. Antiresorptive therapy has been shown to significantly improve morbidity and more recently mortality when given to patients following a hip fracture. The National Osteoporosis Foundation (NOF) recommends considering pharmacological treatment for postmenopausal women or men over the age of 50 with hip or vertebral fractures. Studies show that healthcare providers often fail to treat osteoporosis, even in patients with a fracture history.

Methodology: In-services will be provided to orthopedic surgeons, hospitalists, and primary care providers detailing the NOF guidelines, the need for medicinal therapy following a hip fracture, and our institution's current compliance with NOF recommendations. The Computerized Patient Record System (CPRS) will be utilized to scan daily for patients in the inpatient hospital setting with a diagnosis of hip fracture and physicians will be contacted by pharmacists to recommend initiation of a bisphosphonate and calcium/vitamin D supplementation.

Results:

Conclusions:

Presentation Objective: List bisphosphonates that are FDA approved for the treatment of osteoporosis in men and women. **Self-Assessment:** Which bisphosphonate has been shown to decrease morbidity and mortality when administered following a hip fracture?

- alendronate
- zoledronic acid
- risedronate
- ibandronate

1:40

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

PREDICTORS OF TREATMENT FAILURE WITH N-ACETYL-CYSTEINE FOR ACETAMINOPHEN TOXICITY IN ADULT PATIENTS

Sarah Phanco, Jennifer Mando-Vandrick, Andrew Muzyk, Joanne Latour
Duke University Hospital PGY2 - Critical Care - Durham, NC

Purpose/Background: Background/Purpose: Due to the various treatment regimens and protocols, the use of n-acetylcysteine for the treatment of acetaminophen toxicity may be confusing to clinicians due to several controversies that still exist about the management of this patient population. It is unknown whether certain risk factors may exist which predispose a patient to treatment failure. The objective of this study is to determine information about certain patient characteristics that may act risk factors for the development of acute liver failure, candidacy for liver transplantation, or death with acetaminophen toxicity.

Methodology: Methodology: A retrospective cohort trial of patients receiving oral or intravenous n-acetylcysteine admitted to Duke University Hospital between January 2005 and August 2010 is being conducted. Patients must have received oral or intravenous n-acetylcysteine for documented acetaminophen toxicity. Relationships between patient characteristics such as those patients presenting with acute liver failure versus those without, the time from ingestion of acetaminophen to treatment with n-acetylcysteine, oral vs. intravenous n-acetylcysteine regimens, or length of n-acetylcysteine therapy and patients outcomes will then be explored.

Results:

Conclusions:

Presentation Objective: Presentation Objective: To explore risk factors that lead to treatment failure in patients who receive oral or intravenous n-acetylcysteine for acetaminophen toxicity

Self-Assessment: Self-Assessment: What are current controversies surrounding the treatment and management of n-acetylcysteine for the management of acetaminophen toxicity?

2:00

Room A

CCM

ABSTRACT REPRODUCTION FORM

EVALUATION OF GLUCOSE VARIABILITY WHEN CONVERTING FROM INSULIN INFUSION TO BASAL-BOLUS REGIMEN IN ADULT TRAUMA PATIENTS

Long P. To, Brian P. Mckinzie, Evert A. Eriksson
Medical University Of South Carolina - Charleston, SC

Purpose/Background: Recent evidence suggests increased glucose variability is an independent predictor of intensive care unit (ICU) and hospital mortality. Our aim is to compare the percent variability of glucose control in our surgical-trauma intensive care unit (STICU) patients as they are being transitioned from insulin infusion to basal-bolus subcutaneous insulin. We will also evaluate our ability to achieve equivalent percent variability within the first 24 hours of converting from an insulin drip to basal-bolus therapy based on our institution's STICU glucose management guidelines.

Methodology: Data will be retrospectively collected and includes a sample of 43 adult trauma patients who received both intravenous and subcutaneous basal-bolus correction insulin from November 2007 to October 2010. Patients will be evaluated 48 hours prior to transitioning off insulin drip and 48 hours on basal-bolus insulin. Data collected will include minimum, maximum, mean, and standard deviation of blood glucoses; patient demographic data such as age, race, gender, height, weight, renal function, body mass index, APACHE II score (at time of transition), and ISS score; nutrition status; reason for admission/injury; length of stay; respiratory status; history of diabetes; and significant medications administered during the 96 hours of retrospective evaluation.

Results:

Conclusions:

Presentation Objective: To characterize the ability of the surgical-trauma intensive care unit to provide consistent blood glucose control as patients are transitioned from insulin infusion to basal-bolus insulin regimen. **Self-Assessment:** What are the important clinical factors associated with glucose variability in the STICU?

2:00

Room B

CCM

ABSTRACT REPRODUCTION FORM

EVALUATION OF AN ANTIBIOTIC DE-ESCALATION PROTOCOL IN A COMMUNITY HOSPITAL ICU SETTING

Vidya Nair, Leslie Roebuck, And Melissa Frank
Northeast Georgia Health Systems - Gainesville, Ga

Purpose/Background: Increasing healthcare costs and selective pressure for resistance in the intensive care units (ICU) have been attributed to inappropriate utilization of broad-spectrum antibiotics. Antimicrobial stewardship programs have emerged to effectively address these problems through de-escalation of broad-spectrum agents. De-escalation, or antibiotic streamlining, consists of initial administration of broad-spectrum antibiotics followed by discontinuation or narrowing of therapy guided by microbiological lab results and clinical signs of improvement. This study seeks to investigate the effectiveness of an evidence-based de-escalation protocol in limiting the inappropriate use of antibiotics and optimizing antibiotic selection in the ICU.

Methodology: The study includes 200 patients consulted by the critical care team, diagnosed with sepsis in the ICU, and receiving one or more broad-spectrum agents. Retrospective data on 100 patients was collected for the months of December 2009 through March 2010 to assess the baseline de-escalation of broad-spectrum antibiotics in the ICU. The remaining 100 patients were prospectively selected and followed between the months of December 2010 and March 2011. Patients followed prospectively were monitored for broad-spectrum antibiotics prescribed, length of treatment with these agents, culture and sensitivity results and clinical signs of improvement. Based on these parameters, evidence-based de-escalation of broad-spectrum antibiotics was recommended by a clinical pharmacist to the ICU intensivist.

Results:

Conclusions:

Presentation Objective: To assess the rate of compliance with the de-escalation protocol and its impact on cost. **Self-Assessment:** What objective and clinical signs of improvement are necessary to determine if de-escalation of antibiotic therapy is indicated?

2:00

Room C

ID

ABSTRACT REPRODUCTION FORM

TIGECYCLINE VERSUS CIPROFLOXACIN AND METRONIDAZOLE FOR EMPIRIC THERAPY OF MILD-MODERATE COMPLICATED INTRA-ABDOMINAL INFECTION

Ryan W. Rodriguez, Julie Eckert, Kelly Slack
St. Joseph's Hospital - Tampa, FL

Purpose/Background: Empiric treatment of complicated intra-abdominal infections (cIAI) focuses on enteric gram-negative and anaerobic bacteria. The Infectious Disease Society of America (IDSA) 2010 guidelines recommend broad spectrum therapy be reserved for higher severity infections due to increased adverse events and bacterial resistance. IDSA recommends tigecycline monotherapy for mild-moderate cIAIs, yet questions its appropriateness in this severity category because of its broad spectrum. This project seeks to evaluate the efficacy of tigecycline to combination ciprofloxacin and metronidazole, a more common empiric regimen for mild-moderate cIAIs.

Methodology: St. Joseph's Hospital's computerized database will be used to retrospectively identify adult patients treated with tigecycline or ciprofloxacin/metronidazole for at least four days with ICD-9 codes reflecting mild-moderate intra-abdominal infections. Exclusion criteria include immunosuppression, ICU admission, receipt of antimicrobials for concomitant infection, and receipt of additional antimicrobial before sensitivity reporting. Cure will be evaluated as the empiric or de-escalated regimen completion resulting in stable discharge, stable discharge to complete therapy, regimen completion with no further intervention, and regimen completion with laboratory evidence of clinical resolution. Failure will be defined as receipt of additional antimicrobial or switch to alternative therapy not considered de-escalation after sensitivity reporting, additional surgery, treatment beyond 14 days, discontinuation due to adverse event, readmission within 20 days, and regimen completion without evidence of clinical resolution.

Results:

Conclusions:

Presentation Objective: To describe differences in outcomes between tigecycline monotherapy and ciprofloxacin/metronidazole combination therapy in empiric treatment of mild-moderate cIAIs. **Self-Assessment:** What is appropriate empiric antimicrobial treatment of mild-moderate community-acquired cIAIs?

2:00

Room D

ID

ABSTRACT REPRODUCTION FORM

EVALUATING A CLOPIDOGREL PATIENT ASSISTANCE PROGRAM FOR INDIGENT PATIENTS
 Brittany Brown, Alan Padgett
 Fort Sanders Regional Medical Center - Knoxville, TN

Purpose/Background: The 2007 American College of Cardiology/American Heart Association Practice Guideline Summary recommends the use of dual antiplatelet therapy post stent placement to prevent stent restenosis. These recommendations include dual antiplatelet therapy with aspirin and clopidogrel for a minimum of one month after receiving a bare metal stent. For patients with a drug-eluting stent, aspirin and clopidogrel should be implemented for a minimum of one year. The objective of this study is to evaluate the effectiveness of an institution's program providing clopidogrel to indigent patients post stent placement. The study will also evaluate this patient population's rate of hospital readmissions due to stent restenosis.

Methodology: Enrollment in this program began in 2008 and includes ninety-eight patients. Each patient received a thirty day supply of clopidogrel upon discharge and was then educated on how to receive the additional clopidogrel supply from the drug manufacturer. Enrolled patients will be contacted by a clinical pharmacy resident and asked five survey questions. The data gathered from this survey will be reviewed and used to determine if any changes need to be made to the current program. In addition, chart reviews will be completed to evaluate this patient population's rate of hospital readmissions due to stent restenosis.

Results:

Conclusions:

Presentation Objective: To understand the effectiveness of an institution's program in providing clopidogrel to indigent patients. **Self-Assessment:** What is one way a clinical pharmacist can impact the compliance rate of patients receiving clopidogrel post stent placement?

2:00

Room I

IM

ABSTRACT REPRODUCTION FORM

COST VERIFICATION OF PHARMACIST-IMPLEMENTED SAFETY AND CLINICAL INTERVENTIONS IN THE HOSPITAL SETTING
 Stormy O. Bragg, Kim Hooker, Ava Eure, Nathan Pinner
 Dch Regional Healthcare System - Tuscaloosa, AL

Purpose/Background: Benefits of pharmacist-implemented interventions include improving patient clinical outcomes, medication adherence and knowledge while decreasing healthcare cost, hospital length of stay, incidence of medication errors and adverse drug events. Unfortunately, it is difficult to assess the monetary value of implemented interventions for institutions. Cost-avoidance values outlined in literature are calculated with inconsistent emphasis on hard and soft costs. Lack of standardization among calculations makes implementation of cost-avoidance into diverse institutions challenging. Thus, through interpretation of cost-avoidance calculations employed by documentation systems, literary review and assessment of cost-avoidance assignments implemented in hospitals across the nation, a more accurate reflection of the economic impact of pharmacist-interventions may be defined.

Methodology: Phase 1 is a retrospective literature review of economic implications of pharmacy interventions and commercially available documentation systems. Systems will be reviewed for their capability of implementation into the hospital setting, availability of pre-existing cost-avoidance assignments and disclosure of cost calculations associated with interventions. Phase 2 will include distribution of a national survey and accompanying analysis. Survey inquiries include documentation practices of performed interventions, documentation systems utilized and employed cost-avoidance assignments. Phase 3 will include a conservative update of our institution's specific intervention cost-avoidance assignments, estimation of cost-avoidance not accounted for over recent years and prediction of assignment increases secondary to inflation.

Results:

Conclusions:

Presentation Objective: Verify a standardized calculation for estimating cost-avoidance of specific interventions implemented by pharmacists in the hospital setting.

Self-Assessment: How would standardization of cost-avoidance calculations aid in tracking the monetary worth of pharmacist-implemented interventions?

2:00

Room J

ADM

ABSTRACT REPRODUCTION FORM

EVALUATION OF DARBEPOETIN ALFA USE IN END STAGE RENAL DISEASE PATIENT POPULATION AT A COMMUNITY TEACHING HOSPITAL
 Eric Fallow And Ryan Crossman
 Columbus Regional Healthcare System - Columbus, GA

Purpose/Background: Darbepoetin alfa is one of the erythropoiesis-stimulating agents (ESA) used to treat anemia at Columbus Regional Medical Center (CRMC). Inconsistent use of ESAs at CRMC has led to the Pharmacy and Therapeutics Committee's approval of once weekly darbepoetin alfa as the preferred ESA in end stage renal disease patients. The purpose of this project is to evaluate the use of darbepoetin alfa and to develop a standardized dosing and monitoring protocol for darbepoetin alfa at CRMC.

Methodology: Retrospective data including hemoglobin, hematocrit, iron studies, home medication reconciliation information, number of inpatient dialysis sessions, and dosing of darbepoetin alfa were collected from 40 hemodialysis patients between November 1, 2010 and January 31, 2011. These data were used to determine the appropriateness of prescribing and dosing of darbepoetin alfa. A cost comparison of the previous dosing patterns of ESAs prior to November 2010 and current dosing of darbepoetin alfa was also evaluated for potential cost savings at CRMC.

Results:

Conclusions:

Presentation Objective: Identify potential advantages of converting to once weekly dosing of darbepoetin alfa from other erythropoiesis-stimulating agents. **Self-Assessment:** Identify one way a pharmacist can ensure that darbepoetin alfa dosing or monitoring recommendations are followed.

2:00

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

EFFECTS ON WARFARIN THERAPY IN PATIENTS RECEIVING ELECTROCONVULSIVE THERAPY WITH METHOHEXITAL USED AS THE INDUCTION AGENT
 Eve Darnell, Katie Holliday
 Centennial Medical Center - Nashville, TN

Purpose/Background: There is lacking information in the literature about the effect that methohexital, when used for induction of ECT, may have on the INR in patients concomitantly on warfarin therapy. The purpose of this study is to assess if there are effects seen on the INR in patients receiving ECT when using methohexital as the induction agent.

Methodology: This is a retrospective chart review of patients receiving ECT with methohexital as the induction agent while concurrently on warfarin therapy. The data will be retrieved from a computerized list of patients who received methohexital as the induction agent for ECT while inpatient. The primary endpoint will be to determine if there is a decline in the efficacy of warfarin therapy, expressed by a decreased INR, in patients receiving ECT with methohexital as the induction agent. This will be determined through an assessment of the patient's INRs before and after receiving ECT. A subgroup analysis will be performed to compare a few of the patients who have also received ECT with etomidate as the induction agent while on warfarin therapy. The data collection and evaluation of INRs will be analyzed in the same manner as the methohexital group.

Results:

Conclusions:

Presentation Objective: Explain the mechanism in which methohexital may have an effect on a patient's INR. **Self-Assessment:** What characteristics of methohexital make it the preferred agent for the induction of anesthesia in ECT?

2:00

OLY 2

PSY

ABSTRACT REPRODUCTION FORM

IMMUNOSUPPRESSANT BLOOD LEVELS AS AN ASSESSMENT OF COMPLIANCE IN ADOLESCENT CLINIC FOR KIDNEY TRANSPLANT PATIENTS

Sarah Walker, Rochelle Schmidt, Sandra Amaral
Children's Healthcare Of Atlanta - Atlanta, GA

Purpose/Background: Assess medication compliance in adolescent kidney transplant patients utilizing immunosuppressant blood levels. Medication noncompliance is a leading cause of graft loss and morbidity. Implemented in June 2007, the adolescent transplant clinic allows patients to meet with multidisciplinary team members quarterly, including a pharmacist. The pharmacist monitors drug levels and encourages medication responsibility.

Methodology: Eligible patients are those who attended >1 adolescent clinic and were at least 1 year post kidney transplant. Assessed data includes sirolimus and tacrolimus blood levels, patient self-reports of compliance, monthly lab and quarterly clinic attendance records, estimated creatinine clearance over time and results of organ biopsy. A standard deviation of greater than 3 has been associated with medication noncompliance for tacrolimus in a previous study.

Results:

Conclusions:

Presentation Objective: Identify ways to measure immunosuppressant medication compliance in adolescent transplant recipients. **Self-Assessment:** What is one way pharmacists can encourage adolescent transplant recipients to be compliant with immunosuppressant medication?

2:00

PARTH 1

TRP

ABSTRACT REPRODUCTION FORM

IMPLEMENTATION OF A TELEPHONE-BASED OUTPATIENT ANTICOAGULATION THERAPY MANAGEMENT SERVICE

Nancy Elrod, Kim Hall, Keri Justice
Bay Pines VA Medical Center - Bay Pines, FL

Purpose/Background: Develop and implement a telephone-based outpatient anticoagulation therapy management service at Bay Pines Veterans Affairs Health Care System (VAHCS).

Methodology: A medication utilization evaluation was accomplished to gather baseline efficacy and efficiency data for the office-based service from October 1, 2009 to March 31, 2010. Patients meeting telephone-based service criteria were transitioned from the office-based service to the telephone-based service. Patients were eligible if they had telephone and voicemail capability, were capable of understanding telephone instruction, had no more than one missed office-based appointment in the past 6 months, had been seen by their primary care provider within the last 12 months, and had a solid and stable history of appointment and medication recommendation compliance. Once patient eligibility was determined, patients were counseled on program responsibilities and asked to complete and sign a patient agreement contract. After implementation of the new telephone-based monitoring service, an overall service review from January 1, 2011 to March 31, 2011 will be conducted to determine the total number of patients transitioned into the new service as well as the total number of patients declining to participate in the new service. In addition, further data points will be collected in order to measure efficiency and program satisfaction.

Results:

Conclusions:

Presentation Objective: Describe the procedures involved in implementing a new pharmacy-based monitoring service. **Self-Assessment:** What is one type of barrier to transitioning patients into a new service?

2:00

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

EFFICACY OF PHENYTOIN DOSING REGIMEN FOR EARLY SEIZURE PROPHYLAXIS IN SEVERE TRAUMATIC BRAIN INJURY

Kelly E. Martin, Emily A. Durr
University Of North Carolina Hospitals PGY1 Pharmacy - Chapel Hill, NC

Purpose/Background: Phenytoin is recommended for 7-day seizure prophylaxis following a diagnosis of severe traumatic brain injury (TBI). While several dosing strategies have been reported in the literature, the ideal dosing regimen remains unknown. The objective of this study is to evaluate the appropriateness and efficacy of dosing phenytoin 300 mg daily for 1 week duration in the prevention of early seizures following severe TBI.

Methodology: Data will be collected from the electronic medical record and pharmacy information system for the purpose of a retrospective analysis. Adult patients at least 18 years of age admitted with a diagnosis of TBI and an initial Glasgow Coma Scale (GCS) d 8 who received an intravenous phenytoin loading dose followed by 300 mg IV daily for at least 48 hours will be eligible for inclusion. The following exclusion criteria will be used: hepatic failure, phenytoin allergy, less than 48 hours of phenytoin treatment, time from injury to loading dose greater than 24 hours, history of epilepsy, seizure at the time of injury, pregnancy, and previous head trauma. Additional parameters collected include phenytoin levels, reported adverse events, and pertinent laboratory values. Patients admitted over a 4 year period spanning from January 1, 2006 to December 31, 2010 will be reviewed for inclusion.

Results:

Conclusions:

Presentation Objective: Evaluate the current phenytoin dosing regimen for early seizure prophylaxis following severe traumatic brain injury. **Self-Assessment:** What is the overall seizure incidence in the severe TBI population?

2:20

Room A

CCM

ABSTRACT REPRODUCTION FORM

THE DEVELOPMENT & IMPLEMENTATION OF A PHARMACY-DRIVEN ALGORITHM FOR TREATMENT OF PATIENTS WITH SUSPECTED HEPATORENAL SYNDROME

Carol L. White; Nicole W. Pilch; Tanna Cooper; Joe Mazur
Medical University Of South Carolina - Charleston, SC

Purpose/Background: The diagnosis of hepatorenal syndrome (HRS) continues to be further defined. There are no specific guidelines or recommendations to aid in the diagnosis or treatment of HRS, resulting in inconsistency and high costs. The aim of this study was to (1) develop focus groups within the nephrology and hepatology service lines to determine diagnostic criteria and treatment of patients with suspected HRS, (2) implement algorithms using available technology, and (3) evaluate clinical and cost outcomes associated with implementation of the algorithm.

Methodology: An extensive literature review involving the diagnosis and treatment of HRS was completed. Data was compiled into summary documents and presented to the pharmacy department and each service line. Work groups from service lines were constructed.

Results: Work groups to define diagnostic criteria and treatment guidelines have been created. Education, algorithm and order-set development is underway.

Conclusions: Clinicians are eager to curb costs and improve patient outcomes in patients with suspected HRS. Education of specific areas is ongoing. The development of algorithms and service specific restrictions of use will allow for more accurate initial diagnosis and evidence-based treatment algorithm to improve clinical outcomes and decrease cost. A prospective evaluation of utilization will occur beginning April 1, 2011 to evaluate the true impact of the pathways and restrictions put in place.

Presentation Objective: To discuss design and implementation of a pharmacy-driven algorithm for the treatment of patients with suspected HRS. **Self-Assessment:** What are the current treatment options for patients with hepatorenal syndrome?

2:20

Room B

CCM

ABSTRACT REPRODUCTION FORM

COMPARISON OF VANCOMYCIN AND LINEZOLID FOR MRSA PNEUMONIA AT A COMMUNITY TEACHING HOSPITAL.
Robin Gerding, Melanie Pound, Laurie Whalin
New Hanover Regional Medical Center PGY1 Pharmacy - Wilmington, NC

Purpose/Background: The primary objective of this study is to determine if a difference exists in length of stay (LOS) between vancomycin, linezolid or combination therapy in MRSA pneumonia patients.

Methodology: A retrospective chart review was conducted for the time period of June 30, 2009-July 1, 2010 for all patients who received vancomycin, linezolid, or a combination and had respiratory cultures positive for MRSA and a chest x-ray indicating pneumonia. In addition to the primary objective, other outcomes evaluated included: vancomycin MIC, ICU LOS, persistent infection, duration of antibiotic therapy and safety outcomes. The primary outcome was analyzed using the Kruskal Wallis test.

Results: A total of 199 patients with respiratory cultures positive for MRSA were identified. Of these patients, 124 met inclusion criteria. Patients receiving linezolid or combination therapy had a significantly longer LOS (24 days and 19.5 days, respectively) than those treated with vancomycin (10 days, $p < 0.0001$). Vancomycin MIC for all patients was ≤ 1 mcg/mL and regardless of MIC, there was no difference in LOS.

Conclusions: Patients treated with vancomycin had a significantly shorter overall LOS than similar patients treated with linezolid or a combination therapy regimen.

Presentation Objective: Describe the difference in LOS in patients treated with vancomycin, linezolid, or a combination for MRSA pneumonia. **Self-Assessment:** Was there a significant difference noted in overall LOS and antibiotic utilized in patients with MRSA pneumonia treated with vancomycin, linezolid or combination therapy?

2:20

Room C

ID

ABSTRACT REPRODUCTION FORM

EVALUATION OF MANAGEMENT AND CLINICAL OUTCOMES OF CLOSTRIDIUM DIFFICILE IN HOSPITALIZED PATIENTS
Sara Utley, Ben Bato, Lori Dupree, Stephen Tan
Shands Jacksonville Department Of Pharmacy - PGY1 - Jacksonville, FL

Purpose/Background: Clostridium difficile is a gram positive, spore forming anaerobic organism that is associated with nosocomial diarrhea and can result in dehydration, electrolyte disturbances, renal injury, bowel perforation, and pseudomembranous colitis. C. difficile infection (CDI) is associated with significant morbidity, mortality and increased cost to the health care system. A recent update to the guidelines addresses classification and treatment of patients according to severity of disease. This study aims to evaluate the adherence to updated C. difficile guidelines on treatment and clinical outcomes at a large academic institution. Additionally, this study will observe factors that influence the management of CDI.

Methodology: This study is a retrospective, observational, single center study of all patients who were positive for C. difficile after April 1, 2010. Patients were excluded if they were pregnant, incarcerated, or enrolled in an investigational drug study. The electronic patient medical record was used to collect data and included demographics, antibiotic history, white blood cell count, serum creatinine, and CDI treatment. The data was used to determine if there is a significant difference in mortality, length of stay, or recurrence in patients treated according to the guidelines. Secondary endpoints include demographics, adherence to evidence based treatment guidelines, and association of antibiotics or proton pump inhibitors.

Results:

Conclusions:

Presentation Objective: Differentiate between severity of CDI and recommended treatments. **Self-Assessment:** What is the recommended treatment for severe cases of CDI?

2:20

Room D

ID

ABSTRACT REPRODUCTION FORM

BASAL-BOLUS INSULIN PROTOCOL RENOVATION AND GLYCEMIC CONTROL IN A COMMUNITY HOSPITAL
Lauren Wortham, Pharm.D., Chris Norris, Pharm.D.
Fort Sanders Regional Medical Center - Knoxville, TN

Purpose/Background: Evaluate glycemic control at Fort Sanders Regional medical Center (FSRMC) following a new basal-bolus insulin protocol which began in January 2010. To further assess glycemic control, a two phase study will be conducted to determine current glucose management and options for improved glucose control.

Methodology: Phase one will involve a retrospective analysis to evaluate previous glycemic control versus glycemic control after implementing the basal-bolus insulin protocol. Data for the analysis will be from July 1st through September 30th 2009 prior to the new protocol, and June 1st through August 30th 2010 post new protocol implementation. Inclusion criteria will consist of patients eighteen years of age or older receiving either basal-bolus or sliding scale insulin, a minimum of three days length of stay and at least two blood glucose readings. Patients will be included who receive corticosteroids, dextrose containing intravenous fluids or oral anti-diabetic agents. Patients will be excluded who have a hospital stay lasting greater than fourteen days. In Phase Two, results from phase one will be used to educate physicians and hospital staff on previous and current glycemic control. Education will also be provided to clinical staff pertaining to proper glycemic management. Phase Three will consist of a prospective analysis. A second data collection will evaluate the effect of education and determine the need for further glycemic management.

Results:

Conclusions:

Presentation Objective: Evaluate current glycemic control and determine methods to enhance glycemic management. **Self-Assessment:** How comfortable are you recommending a basal insulin regimen?

2:20

Room I

IM

ABSTRACT REPRODUCTION FORM

INTERDISCIPLINARY EVALUATION OF HIGH-IMPACT MEDICATIONS AND THE EFFECT ON DRUG UTILIZATION
Nicole R. Panosh, Paul Bush, John Hertig, Kuldip Patel, Michael Decoske
Duke University Hospital - Health System Pharmacy Adm. - Durham, NC

Purpose/Background: With healthcare costs steadily rising in the midst of healthcare reform, health-systems must find ways to decrease expenditures. Drug expenses are a significant contributor to overall hospital budgets. In 2009, our institution implemented a Pharmacy Utilization Management Program to identify and act upon opportunities to improve medication use and decrease cost. Prior to the launch of this program the focus of cost savings initiated by the department of pharmacy was analysis of contract pricing and procurement practices. The goal has been to expand the program and engage our providers in order to work collaboratively toward improved medication utilization and to establish a culture of cost-awareness. This study describes the implementation of this interdisciplinary effort and determines the impact on prescribing practices and drug utilization.

Methodology: This study describes the implementation of interdisciplinary medication utilization teams, outlines the process for identifying opportunities for improved medication utilization, and analyzes changes in drug utilization. Drug utilization was determined using information from each team and from the University Health Consortium (UHC) Clinical Resource Manager (CRM). The CRM allowed us to analyze institution specific aggregate data and compare our medication use to other UHC institutions. Internal medication utilization and finance reports were used to validate aggregate data and cost information.

Results:

Conclusions:

Presentation Objective: To report on the initiation and impact of a multidisciplinary team approach to medication utilization analysis. **Self-Assessment:** How does UHC define high impact medications?

2:20

Room J

ADM

ABSTRACT REPRODUCTION FORM

ASSESSMENT OF EMPIRIC ANTIDOTE USAGE IN A LARGE URBAN TEACHING INSTITUTION

Sara J. Miller; Karen Curzio; Ziad Kazzi; Grady Memorial Hospital, Atlanta, Grady Health System - Atlanta, GA

Purpose/Background: The prevalence of medication-related harm and inappropriate prescribing has been well documented, as has the need to educate prescribers on the use of informational resources and drug compendia. There are various resource options at Grady Health System (GHS) for managing patients with overdose or exposure: 24 hour access to the Georgia Poison Center (GPC) and its clinical toxicology service, clinical pharmacist coverage in the Emergency Department, and continuous coverage by on-call clinical pharmacists. Currently, no evaluation has been performed to assess the appropriateness of initial implementation of antidote therapies at GHS. This study will determine the need for education in the health system about antidote therapies and available resources, such as the GPC and clinical pharmacists. This study will also determine the need for development of protocol(s) to improve correct use of antidote therapy.

Methodology: A concurrent, observational chart review of patients prescribed selected antidote therapies will be conducted. Utilization of selected antidote therapies will be collected by the hospital information database and reports will be generated from November 2010 through March 2011. An impartial toxicologist will review collected data to assess appropriateness of agent, dose, time to initiation, and length of therapy (LOT). Data collection and evaluation are currently being conducted.

Results:

Conclusions:

Presentation Objective: Identify drug therapies most commonly utilized for treatment of human exposures. **Self-Assessment:** According to the AAPCC 2009 Annual Report of the NPDS, what drug therapy is most commonly utilized for treatment of human exposures?

2:20

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

EFFECT OF ATTITUDES AND BELIEFS OF NURSES AND MENTAL HEALTH TECHNICIANS ON THE ASSESSMENT AND TREATMENT OF AGITATION IN BEHAV

Ashley Clark, Naomi House, Jacqueline Gunning
Wolfson Children's Hospital - Baptist Health - Jacksonville, FL

Purpose/Background: Physicians rely substantially on nursing reports for assessing and treating behavioral disturbances such as agitation. Legal requirements for patients on a behavioral health unit require that least restrictive measure be taken for treatment of agitation. Nursing beliefs and attitudes have the potential to influence the physician's decision on treatment of agitation in behavioral medicine units. The objective is to evaluate the effect of attitudes of nurses and mental health technicians on the assessment and treatment of agitation in behavioral medicine patients at Baptist Medical Center Downtown Jacksonville.

Methodology: A survey was sent out to all nurses and mental health technicians listed as current employees in the Behavioral Health unit. Two versions of the survey were sent out with one being sent to mental health technicians and one to the nurses. All responses were collected in the analyzer of the survey tool. Demographics, attitudes and beliefs about agitated patients, attitudes and beliefs about agitation treatment and case scenarios were included in the survey.

Results:

Conclusions:

Presentation Objective: Identify the factors that affect nursing attitudes and beliefs. **Self-Assessment:** What are the factors that affect nursing attitudes and beliefs?

2:20

OLY 2

PSY

ABSTRACT REPRODUCTION FORM

INHALED EPOPROSTENOL VERSUS OTHER THERAPIES TO CONTROL PULMONARY ARTERIAL PRESSURE IN HEART TRANSPLANTATION OR LEFT VENTRICUL

Lindsay Hahn Kwame Asare
St. Thomas Hospital - Nashville, TN

Purpose/Background: Vasodilators are used to decrease pulmonary pressures in patients undergoing heart transplant, however, increased dosages often lead to decreased pulmonary selectivity and systemic hypotension. Epoprostenol, an intravenous vasodilator used for the same purpose, also causes significant systemic hypotension. It has been used effectively off-label as a nebulized solution to reduce pulmonary pressures with little or no systemic hypotension. This study aims to compare the efficacy and adverse effects of inhaled epoprostenol vs. other intravenous therapies used to control pulmonary arterial pressure in patients undergoing heart transplantation or left ventricular assist device (LVAD) placement.

Methodology: A retrospective chart review was conducted of patients who underwent heart transplant or left ventricular assist device placement surgery. Thirteen patients received treatment for pulmonary hypertension with therapy that included inhaled epoprostenol, and thirteen patients received treatment for pulmonary hypertension with other therapies. Patients met inclusion criteria if they were \geq 18 years of age. The primary outcomes were change in mean pulmonary artery pressure, time spent in the ICU, and time spent on mechanical ventilation. Secondary end-points included change in capillary wedge pressure, pulmonary vascular resistance, cardiac output, cardiac index, and adverse effects such as hypotension.

Results:

Conclusions:

Presentation Objective: Assess the efficacy of inhaled epoprostenol vs. other therapies in decreasing pulmonary hypertension in heart transplant/LVAD patients. **Self-Assessment:** Are there any clinical advantages in using inhaled epoprostenol vs. other therapies to decrease pulmonary hypertension in heart transplant and LVAD patients?

2:20

PARTH 1

TRP

ABSTRACT REPRODUCTION FORM

CONCENTRATED U-500 INSULIN: OUTPATIENT USE AND EVALUATION OF THERAPY

Sarah Grawe And Valerie Steele
Bay Pines VA Medical Center - Bay Pines, FL

Purpose/Background: Currently, two strengths of regular insulin exist: U-100 and U-500. U-500 regular insulin is five times more concentrated than the U-100 variety, with a concentration of 500 units per milliliter. This higher concentration results in a longer duration of action, mimicking that of U-100 NPH. Like NPH, U-500 is usually dosed twice daily. Few studies exist at this time regarding U-500 insulin use. However, the few clinical trials that are available have demonstrated efficacy of U-500 insulin in severely insulin dependent type 2 diabetic patients, as well as a decrease in insulin requirements after U-500 initiation. The purpose of this research project is to evaluate the outpatient utilization and efficacy of therapy of U-500 insulin at the Bay Pines VAHCS.

Methodology: A four year, retrospective chart review will be performed in order to evaluate current U-500 prescribing practices. Patients receiving U-500 insulin will be identified. Glucose control, hypoglycemic events, total daily dose of all types of insulin used, and the patient's weight before and after the switch to U-500 insulin will be assessed.

Results: Data collection in progress.

Conclusions: Pending completion of data collection.

Presentation Objective: To evaluate concentrated U-500 insulin use and its place in therapy. **Self-Assessment:** What are the benefits of using concentrated U-500 insulin?

2:20

PARTH 2

AMB

ABSTRACT REPRODUCTION FORM

EVALUATION OF AN INTENSIVE INSULIN TRANSITION PROTOCOL IN THE ICU SETTING: A BEFORE AND AFTER STUDY

Leigh Anne Dye, Kathleen Jerguson, Danielle Fraser, And Leanna Spiva
Wellstar Kennestone Hospital - Marietta, GA

Purpose/Background: The benefits of successfully controlling blood glucose levels in the intensive care setting are well documented. A continuous insulin infusion provides aggressive control of blood glucose levels but is labor intensive and may prohibit transfer. This study will determine the effectiveness and safety of a new standardized transition order set for converting continuous insulin infusion patients to a subcutaneous insulin regimen in non-cardiovascular surgery intensive care units.

Methodology: A database of patients requiring a continuous insulin infusion was used to identify eligible patients. Any patient requiring the use of an insulin drip was included except for patients presenting with diabetic ketoacidosis or hyperosmolar hyperglycemic syndrome. One hundred (100) patients were selected from September to December of 2009, prior to the standardized transition order set, and one hundred (100) patients were selected from October 2010 to March 2011 after initiating the standardized transition order set. All patients underwent a retrospective chart review in which blood glucose control was reviewed for seventy-two (72) hours following the transition to subcutaneous insulin.

Results:

Conclusions:

Presentation Objective: Compare blood glucose control for patients transitioned with and without the use of a standardized transition order set for converting continuous insulin infusion patients to a subcutaneous insulin regimen. **Self-Assessment:** What are some of the benefits of having a standardized transition order set for converting continuous insulin infusion patients to a subcutaneous insulin regimen?

2:40

Room A

CCM

ABSTRACT REPRODUCTION FORM

EXAMINING THE DOSE-RESPONSE RELATIONSHIP OF INTRAVENOUS BUMETANIDE IN VARIOUS PATIENT POPULATIONS

Mary M. Bradbury And Jean M. Nappi
Medical University Of South Carolina - Charleston, SC

Purpose/Background: Furosemide is commonly used in hospitalized patients. Recently, a shortage of intravenous (IV) furosemide forced hospitals to explore alternative agents for IV diuresis. Bumetanide dosing has been guided by a dose-equivalence ratio of 40:1 for furosemide:bumetanide but this is based on short term regimens. The purpose of this study was to examine the IV dose-response relationship of IV bumetanide administered for greater than 48 hours in various populations and compare these results to previous literature describing the IV dose-response of furosemide.

Methodology: This retrospective study examined patients that received IV bumetanide at our institution from June 2010 through November 2010. At this time orders for IV furosemide were automatically substituted for IV bumetanide at a ratio of 40:1. Patients were excluded if they were less than 18 years old, received less than 48 hours of bumetanide, or did not have urine output (UOP) accurately recorded.

Results: Based on results to date, the average daily dose of bumetanide was 2.57 mg and the average length of therapy was 6.9 days (n=32). Mean UOP per day was 1447 mL/mg of bumetanide received. There was no significant difference in the dose-response relationship between patients with heart failure and/or chronic kidney disease (n=13) compared to otherwise healthy patients. Additionally, there was no significant difference in total UOP/mg drug when comparing bumetanide to furosemide at a 1:40 ratio.

Conclusions:

Presentation Objective: Evaluate the dose-response relationship of intravenous bumetanide **Self-Assessment:** What is the relationship of bumetanide dose and urine output in various patient populations?

2:40

Room B

CCM

ABSTRACT REPRODUCTION FORM

DEVELOPMENT AND IMPLEMENTATION OF A HEPATIC DOSAGE ADJUSTMENT TEMPLATE: A PERFORMANCE IMPROVEMENT PROJECT

Desirea T. Broome, Karen A. Slazinski
Orlando VA Medical Center - Orlando, FL

Purpose/Background: The purpose of this project is to improve the performance of dosing medications in hepatically impaired patients at the Orlando Veterans Affairs Medical Center. A common way to adjust medications in patients with liver impairment is by using the Child-Pugh scoring system. It determines the severity of liver impairment and is then used to predict the change in dose for medications. Mild liver impairment is defined as Child-Pugh score of 5 to 6 points. Moderate liver impairment is defined as Child-Pugh score of 7 to 9 points. Severe liver impairment is defined as Child-Pugh score 10 to 15 points. The five components of the Child-Pugh score are serum bilirubin, serum albumin, prothrombin time prolongation, ascites, and encephalopathy.

Methodology: A voluntary survey was conducted to determine providers' familiarity with hepatic dose adjustments. A template with a link to a Child-Pugh calculator and a quick order set for selected medications, based on the Child-Pugh score system, was developed and incorporated into the Computerized Patient Record System. Additionally, a presentation was given to providers to give education on the benefits of using a Child-Pugh scoring system. Lastly, a post-survey was conducted to determine providers' satisfaction concerning the template and its benefit to the patients.

Results:

Conclusions:

Presentation Objective: To improve the performance of hepatically dosing medications when using a Child-Pugh scoring system. **Self-Assessment:** What tool is used to determine if hepatically eliminated medications require dose adjustment?

2:40

Room C

ID

ABSTRACT REPRODUCTION FORM

EVALUATION OF EMPIRIC ANTIBIOTIC THERAPY FOR TREATMENT OF PNEUMONIA IN A COMMUNITY HOSPITAL

Nancy M. Nix, Robin Southwood, Virginia Fleming
Phoebe Putney Memorial Hospital - Albany, GA

Purpose/Background: Appropriate empiric antibiotic therapy for bacterial pneumonia is associated with improved patient outcomes and reduced healthcare costs. The Infectious Diseases Society of America/American Thoracic Society (IDSA/ATS) guidelines recommend selection of empiric therapy based upon type or class of pneumonia and identification of risk factors for drug resistant pathogens (DRP). This project evaluates empiric antibiotic selection for pneumonia in a 443-bed community teaching hospital.

Methodology: This medication use evaluation is a retrospective chart review of 119 patients admitted between January 1, 2008 and April 17, 2009 with an ICD-9 code for pneumonia. Patients included were 18 years of age, immunocompetent and not pregnant. The computerized medical record of each patient was reviewed and the following information collected: demographics, antibiotic therapy received, timing of 1st antibiotic dose, duration of antibiotic therapy, microbiology findings, risk factors for DRP, pneumonia vaccine status and administration, survival and readmission rate. Antibiotic therapy was evaluated for consistency with IDSA/ATS guidelines. Data collection will be completed prior to project presentation.

Results:

Conclusions:

Presentation Objective: List the classifications of pneumonia; Recommend empiric antibiotic therapy for inpatients with various types of pneumonia; Evaluate consistency of empiric antibiotic therapy with IDSA/ATS guidelines. **Self-Assessment:** A 32 year old female with no significant medical history presents to the emergency room with complaints of fever, chills, and productive cough for three days. After a chest x-ray, AJ is admitted and ceftriaxone 1 gm IV daily is initiated for community-ac

2:40

Room D

ID

ABSTRACT REPRODUCTION FORM

UTILIZATION OF THE 4T SCORE IN EVALUATING PATIENTS FOR HEPARIN INDUCED THROMBOCYTOPENIA

Edds L, Butler K, Badger N, Hallman L, Powell H, Garrett D, Eagle L, Evans
Piedmont Hospital - Atlanta, GA

Purpose/Background: Heparin induced thrombocytopenia (HIT) is an antibody-induced reduction in platelets affecting 1-3% of inpatients exposed to heparin. When there is a strong suspicion that a patient is HIT positive, it is essential to initiate a non-heparin anticoagulant in a timely manner to prevent thrombotic complications. Conversely, inappropriate use of these agents can contribute to unnecessary expenditures.

Clinical assessment and laboratory data should be used together when diagnosing HIT. The 4T score is a tool commonly used to assess a patient's risk for HIT. This systematic evaluation may aid in selecting appropriate drug therapy, reduce lab testing, and overall cost.

Methodology: This study is a retrospective, single center, chart review of all HIT assays ordered within a 3-month period. Data collected to calculate the 4T include: timing of thrombocytopenia, percent platelet fall, thrombotic events, and other causes of thrombocytopenia. The 4T score was then used to stratify each patient's risk for HIT.

The primary objective of this study was to compare the 4T score with HIT enzyme linked immunoassay (ELISA) and serotonin release assay (SRA) results to evaluate its utility in diagnosing HIT. The secondary outcomes are to evaluate the appropriateness of treatment and potential cost savings.

Results: Pending

Conclusions: Pending

Presentation Objective: To verify or refute the predictive value of the 4T scoring system based on study results. **Self-Assessment:** How might clinical assessment aid in evaluating patients with thrombocytopenia to determine if heparin is the causative agent?

2:40

Room I

IM

ABSTRACT REPRODUCTION FORM

REDUCING RESOURCE UTILIZATION IN SEPSIS SYNDROME MANAGEMENT BY TARGETING SPECIFIC INTERVENTION STRATEGIES

Paul Handley And Edward H. Eiland, III.
Huntsville Hospital - Huntsville, AL

Purpose/Background: Management of sepsis syndrome results in considerable consumption of health care resources especially in the hospital setting. Limited data is available regarding hospital resource utilization and costs associated with caring for patients with sepsis. Considering the current economic environment and increasing need to manage health care costs due to decreasing reimbursement, targeting sepsis syndrome to ensure resource optimization is a worthwhile endeavor. Huntsville Hospital System has put in place various interventions over time to improve outcomes associated with sepsis treatment. This study aims to determine Huntsville Hospital System's resource allocation in fiscal year 2009 and 2010 in relation to sepsis syndrome treatment. Additionally, assessment of the effectiveness of interventions enacted and their impact on overall costs and resource utilization will be evaluated. Primary outcomes of interest include length of hospitalization, anti-infective costs, thirty day readmission rates, overall hospital costs, as well as inpatient mortality associated with sepsis. The primary outcomes will be compared between 2009 and 2010 to assess Huntsville Hospital System's current standings with regards to sepsis management.

Methodology: A retrospective analysis of administrative claims information and discharge records from 2009 and 2010 was conducted. In order to identify patients with sepsis syndrome, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) procedure and diagnostic codes were used.

Results: Pending.

Conclusions: Pending.

Presentation Objective: Discuss hospital resource allocation associated with treating sepsis syndrome and interventions that may be implemented to improve resource utilization. **Self-Assessment:** List three (3) measurable outcomes associated with sepsis syndrome treatment?

2:40

Room J

ADM

ABSTRACT REPRODUCTION FORM

EVALUATING THE USE OF ACETAMINOPHEN IN A COMMUNITY HOSPITAL

Christi Bell, Kim Hooker, Ava Eure, Lyn Christian, Marilyn Bulloch
DCH Regional Healthcare System - Tuscaloosa, AL

Purpose/Background: Patients that receive greater than 4 grams of acetaminophen per day are at an increased risk for developing acetaminophen-induced hepatotoxicity. This risk can be abated by reducing the amount of acetaminophen-containing products prescribed and administered to each patient. Assessing the frequency at which acetaminophen is prescribed and/or administered at doses exceeding the recommended maximum daily dose will provide the basis for medical staff education and recommendations to amend pre-printed order forms.

Methodology: Phase 1 included a retrospective chart review of a randomized sample of patients that received at least one dose of an acetaminophen-containing product during January and February 2010. Information regarding the amount of acetaminophen prescribed (in both single and combination products) and the amount of acetaminophen actually administered to each patient identified was collected. Phase 2 included a complete review of the DCH Regional Medical Center pre-printed order forms to identify forms that contain acetaminophen orders that have the potential to exceed the maximum recommended daily dose of acetaminophen and recommend appropriate changes to ensure patient safety. Phase 3 involved education to healthcare providers and the distribution of a reference card to assist in the calculation of the total daily dose of acetaminophen administered.

Results:

Conclusions:

Presentation Objective: Identify the potential for patients to receive greater than the maximum recommended amount of acetaminophen in a 24 hour period. **Self-Assessment:** What is one way to ensure that a patient does not receive greater than the maximum recommended daily dose of acetaminophen while in the hospital?

2:40

OLY 1

MUS

ABSTRACT REPRODUCTION FORM

EFFECT OF A PHARMACY-LED MEDICATION EDUCATION SERVICE ON BEHAVIORAL HEALTH PATIENTS

Dana Chiulli, Naomi House, Jacqueline Gunning
Wolfson Children's Hospital - Baptist Health - Jacksonville, FL

Purpose/Background: Behavioral health patients are often noncompliant with their medication regimens, partly due to lack of education regarding therapy. Currently, Baptist Medical Center's inpatient behavioral health unit offers a once weekly medication group allowing patients to review their medication regimens and inquire about any corresponding issues or concerns. The purpose of this study is to evaluate the impact of the medication education group, led by a pharmacist, on the behavioral health patient's medication knowledge, education satisfaction, and attitude towards pharmacists.

Methodology: All consenting patients admitted to the behavioral health unit, meeting the inclusion/exclusion criteria, are eligible to participate in the study. Each study patient will complete a pre-medication education survey to assess baseline medication knowledge and attitude towards pharmacists. The participants will then have the opportunity to attend the pharmacist-led medication group to discuss the importance of taking medication correctly, consequences of non-compliance, rationale/indication for medication use, therapeutic drug categories, and potential adverse effects. A post-medication education survey will be completed by each study patient on the day following group. Correct answers will be determined using the medication administration record and clinical pharmacy expertise. The pre and post-medication group survey scores will be compared in order to determine the overall impact of the pharmacist-led medication.

Results:

Conclusions:

Presentation Objective: Identify interventions that have a positive impact on behavioral health inpatient medication knowledge. **Self-Assessment:** How can pharmacists impact behavioral health inpatient medication knowledge?

2:40

OLY 2

PSY

ABSTRACT REPRODUCTION FORM

ABSTRACT REPRODUCTION FORM

INVASIVE MOULD INFECTIONS (IMIS) IN LUNG TRANSPLANT RECIPIENTS: RISK FACTOR ANALYSIS AND EPIDEMIOLOGY

Christina Doligalski; Matthew Harris; David Zaas; Barbara Alexander
Duke University Hospital PGY2 - Solid Organ Transplant - Durham, NC

Purpose/Background: Solid organ, and lung transplant (LT) recipients in particular, are at increased risk for invasive fungal infections due to the immunosuppression required to prevent rejection. While the type and timing of fungal disease varies depending on the organ transplanted, invasive mould infections (IMIs) are of particular importance among LT recipients; IMIs have been associated with one year mortality of 40%.

Among the LT population, identification of risk factors for IMIs has been limited to evaluation of invasive aspergillosis in retrospective studies, and the epidemiology of fungal disease among solid organ transplant recipients has been limited to small surveillance studies.

The purpose of this study is to provide a better understanding of the type, timing, and risks for IMIs, to provide the basis for optimizing prevention strategies.

Methodology: A 3:1 case-control evaluation will be conducted to evaluate risk factors for IMIs following lung transplantation. The following risk factors will be explored: antifungal therapy, alemtuzumab or anti-lymphocyte antibody therapy, acute rejection, neutropenia, diabetes, renal insufficiency, co-infections, and single vs. double LT. A multivariate logistic regression analysis will be used to analyze these risk factors. Descriptive statistics will be used to characterize the epidemiology endpoints. These include twelve-month cumulative incidence of IMI by type and site of mould, and timing of IMI onset.

Results:

Conclusions:

Presentation Objective: To provide a better understanding of the type, timing, and risks for invasive mould infections in lung transplant recipients. **Self-Assessment:** What risk factors are associated with the development of IMIs in lung transplant recipients?

2:40

PARTH 1

TRP

BISPHOSPHONATE THERAPY FOLLOWING HIP FRACTURES

Christine Grogan, Mary Hall, John Hoeldtke
Bay Pines VA Medical Center - Bay Pines, FL

Purpose/Background: To track the use of bisphosphonates in treating hip fractures among veterans at Bay Pines VA Healthcare System. The National Osteoporosis Foundation (NOF) advises that postmenopausal women and men age 50 and older with a vertebral or hip fracture should be considered for medical therapy, including alendronate, risedronate or zoledronic acid.

Methodology: After performing in-services for providers and discussing the NOF guidelines, physicians will be contacted daily by pharmacists to assist with post-fracture treatment when none is ordered. Any postmenopausal female or male 50 years or older with an X-ray diagnosed hip fracture will be included in this intervention within a month of diagnosis. The Computerized Patient Record System (CPRS) will then be used to evaluate whether recommendations made were accepted by physicians.

Results:

Conclusions:

Presentation Objective: List potential benefits of prescribing bisphosphonates after hip fractures. **Self-Assessment:** What are the FDA approved bisphosphonates used to increase bone mineral density in men?

2:40

PARTH 2

AMB

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