MIDSOUTH PHARMACY RESIDENTS CONFERENCE

ABSTRACTS

Midsouth Pharmacy Residents Conference

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Alexander, Parker

An Evaluation of Vancomycin De-escalation in Patients with a Negative MRSA Nares Culture, Post-implementation of a Pharmacist-driven MRSA Nares Screening Protocol

Alexander, Parker, PharmD
Mississippi Baptist Medical Center, Jackson, Mississippi

Background and Purpose

Methicillin-resistant Staphylococcus aureus (MRSA) nares screening has a negative predictive value of greater than 96% for MRSA pneumonia. Based on this high negative predictive value, Mississippi Baptist Medical Center implemented a pharmacist-driven protocol in March 2024. This allowed pharmacists to order an MRSA nares culture for patients receiving vancomycin with suspected pneumonia. The purpose of this study was to evaluate the effectiveness of a MRSA nares screening protocol in the appropriate de-escalation of vancomycin.

Methods

This study was a single-center, retrospective chart review of patients with a documented pharmacist-initiated MRSA nares screening from April 1, 2025 through September 30, 2025. Patients were included if they were 18 years or older and had a documented pharmacist-initiated MRSA nares screening. Exclusion criteria included vancomycin indication other than pneumonia, positive MRSA nares screen, or discharge within 48 hours. The primary outcome was the incidence of appropriate vancomycin de-escalation post negative MRSA nares screen, defined as de-escalation of vancomycin by end of the next day following a negative MRSA nares screen. Secondary outcomes included: time to de-escalation post negative result, pharmacist compliance with protocol, incidence of a positive MRSA culture within 7 days after a negative MRSA nares screen, and incidence of documented pharmacist intervention of a de-escalation recommendation.

Results

A total of 79 patients were included in this study with 53.2% of the patients identifying as female. The average patient age was 68.5 years old, and 65.8% of patients identified as white. The primary outcome of appropriate vancomycin de-escalation occurred in 54/79 (68.4%) patients. Vancomycin de-escalation occurred at an average of 3.8 days (SD ± 1.62). Pharmacist compliance with protocol was observed in 72/79 (91.1%) patients. Documented pharmacist intervention of a de-escalation recommendation occurred in 18/79 (22.8%) patients. Positive MRSA culture within 7 days of a negative nares screen was identified in 1 patient.

Conclusions

A pharmacist-driven MRSA nares screening protocol supports appropriate vancomycin de-escalation and reinforces its use as a tool in antimicrobial stewardship.

Alisa, Bonita

Comparing Pharmacist Impact in Inpatient Valproic Acid and Lithium Monitoring

Alisa, Bonita; Bridges, Sydney
Baptist Health Medical Center - North Little Rock, Arkansas, Department of Pharmacy

Background and Purpose

Valproic acid (VPA) and lithium are commonly used mood stabilizers for psychiatric disorders such as bipolar disorder, major depressive disorder, and schizoaffective disorder. Due to their narrow therapeutic index, both require therapeutic drug monitoring (TDM) to prevent toxicity and ensure efficacy. Lithium toxicity may cause tremors, ataxia, renal impairment, and neurotoxicity, while VPA toxicity can result in hepatic dysfunction, hyperammonemia, and central nervous system depression. Subtherapeutic levels may also lead to poor symptom control and relapse.

Pharmacist-driven monitoring is essential for optimizing therapy by ensuring timely laboratory assessment, identifying drug interactions, and guiding dose adjustments. The American Psychiatric Association recommends routine TDM and baseline laboratory evaluations for both agents to minimize toxicity and maintain therapeutic effectiveness.

The purpose of this study evaluates the impact of a psychiatric pharmacist's clinical interventions at BHMC - NLR (Baptist Health Medical Center - North Little Rock) compared to the absence of pharmacist involvement at BHMC - LR (Baptist Health Medical Center - Little Rock).

Methods

This study was a multi-center, retrospective, chart review of patients to compare the impact of primary psychiatric pharmacist clinical intervention at BHMC - NLR with absence of pharmacist intervention at BHMC - LR. This study included patients 18 years or over, prescribed with VPA or lithium for the treatment of a psychiatric disorder, and at least one dose of VPA or lithium in-patient. Patients were excluded if they have severe renal or liver impairment, pregnant or breastfeeding, history of neurological disorders, or patients on VPA for seizure control. The primary outcome studied the appropriate collection of baseline and steady state monitoring parameter monitoring for VPA and lithium. The secondary outcomes:

- Baseline monitoring parameters collected within 24 hours of restarting or initiating VPA or lithium
- Time to draw baseline monitoring parameters
- Time to draw serum concentrations
- Number of missed baseline monitoring parameters
- Number of steady-state monitoring parameters drawn
- Length of stay
- Dose adjustments
- Compliance of pharmacotherapy prior to serum concentrations drawn
- Timeliness of serum concentration drawing

Results:

Results pending

Conclusion

Conclusion pending

Alqadi Altamimi, Farrah

Assessment of Prescription Flow in a Hospital's Outpatient Pharmacy for Operational Optimization

Alqadi Altamimi, Farrah; Jones, Darryl; Sidebottom, Ashley; White, Lindsay
Baptist Memorial Hospital, Memphis, TN

Background and Purpose

Outpatient pharmacies play a critical role in ensuring medication access during transitions of care. However, misalignment of prescription flow, discharge patterns, and outpatient pharmacy operations may impact prescription fulfillment efficiency and medication access for patients. At the outpatient pharmacy of Baptist Memorial Hospital - Memphis (BMHCC), discharge and prescription workflows have not yet been systematically evaluated in relation to the current operating hours and staffing model. This quality improvement research aims to assess prescription and discharge flow patterns. The results will be used to identify opportunities for optimizing pharmacy service hours and staffing to enhance prescription capture and workflow efficiency.

Methods

This quality improvement project is being conducted at BMHCC and will be utilizing records from October 1, 2024, to September 30, 2025. Pharmacy system records will be used to collect information on prescription characteristics, volume, and fulfillment. This information will then be used to identify peak prescription volume periods and average prescription turnaround times throughout the day. Prescriptions received by the pharmacy outside of working hours, discharge patterns at the hospital, and the number of discharge prescriptions routed to the inpatient pharmacy after hours will also be assessed to better characterize current and potential prescription capture.

Results and Conclusions

Results are not yet available at the time of abstract submission. Findings will be described at the time of the presentation.

Baamir, Duha

Evaluation of Ruxolitinib for Graft Versus Host Disease Prophylaxis in Pediatric Allogeneic Hematopoietic Stem Cell Transplant Recipients Intolerant to Initial Prophylactic Regimens

Baamir, Duha; Flint, Caroline; Epperly, Rebecca; Leggas, Mark; Wu, Diana
St. Jude Children's Research Hospital, Memphis, Tennessee

Background/Purpose

Graft vs host disease (GVHD) remains a significant cause of morbidity and mortality following allogeneic hematopoietic stem cell transplant (HSCT). Standard GVHD prophylaxis typically includes a calcineurin inhibitor or sirolimus combined with methotrexate or mycophenolate mofetil; however, some patients are unable to tolerate these regimens due to renal dysfunction or other complications. Ruxolitinib, a selective JAK1/JAK2 inhibitor, is FDA-approved for the treatment of steroid-refractory acute (aGVHD) and chronic GVHD after failure of one or two prior systemic therapies in patients ≥12 years old. Given its effectiveness in treating GVHD, there is growing interest in evaluating ruxolitinib for GVHD prophylaxis and has been used as an alternative option for patients unable to tolerate standard GVHD prophylaxis. This study aimed to evaluate the tolerability of ruxolitinib as GVHD prophylaxis in pediatric patients undergoing allogeneic HSCT.

Methods

This single-center retrospective review included patients ≤21 years who underwent allogeneic HSCT between January 1, 2020, and January 31, 2025 and received ruxolitinib for GVHD prophylaxis. Patients were excluded if ruxolitinib was initiated after GVHD treatment or enrolled on a study evaluating ruxolitinib prophylaxis. The primary outcome was incidence of aGVHD at 3 months post-transplant. Secondary outcomes included mortality due to relapse or any cause at 12 months post-transplant or last follow-up, time to neutrophil and platelet engraftment, and discontinuation of ruxolitinib due to adverse events.

Results

A total of 38 pediatric patients were identified, of whom 18 were included. The median age was 12 years. The incidence of grade II–IV aGVHD at 3 months was 33%, which is consistent with the reported range of 28–59% among pediatric HSCT recipients, with most cases being lower grade. Median time to neutrophil and platelet engraftment was 11 and 39 days, respectively. Ruxolitinib was discontinued in 7 patients due to adverse events, including cytopenias and transaminitis. At 12 months post-transplant, 6 patients died from non-relapse causes and one from relapse.

Conclusion

Ruxolitinib may be a feasible alternative GVHD prophylaxis strategy in pediatric HSCT recipients with outcomes similar to standard regimens. Further prospective studies are needed to better define safety, optimal dosing, and long-term outcomes.

Bacchuss, Amberlyn

Impact of Bolus Administration of Sodium Bicarbonate on Immediate Vasopressor Requirements

Amberlyn B Bacchuss, Haley Watson, Mike Reichert, Ana Negrete, Rachel Bone
Methodist University Hospital, Memphis, TN

Background and Purpose

Since an acidotic state can reduce the sensitivity of adrenergic receptors to epinephrine and norepinephrine (NE), bolus administration of sodium bicarbonate has become a common practice to help rapidly normalize blood pH in patients with septic shock. However, the 2021 SCCM Surviving Sepsis Guidelines only recommends sodium bicarbonate utilization in patients who have severe metabolic acidemia and acute kidney injury (AKI). Overall, the benefits of sodium bicarbonate administration in septic shock remain unclear, and studies comparing benefits versus risks are controversial. This study aimed to explore the impact of bolus administration of sodium bicarbonate on reducing immediate vasopressor requirements for patients in the intensive care unit (ICU).

Methods

This retrospective, observational, multi-center study included adult patients who were admitted to an ICU with diagnosis of septic shock between October 2024 to October 2025 and received at least one sodium bicarbonate bolus after requiring 6 hours of NE or epinephrine. The most recent NE and epinephrine infusion rate prior to administration of sodium bicarbonate was collected, and subsequent rates were collected at 30 minutes, 1 hour, and 3 hours after bicarbonate administration. Primary outcome was the numerical difference in NE equivalent requirements 30 minutes after sodium bicarbonate administration, and secondary outcomes evaluated the difference at 1 hour and 3 hours. Additional outcomes included the difference of requirements in patients with an AKI versus those without.

Results

Among 123 patients included, there was no change in the difference of NE equivalents following administration of sodium bicarbonate at 30 minutes (55.9 vs 55.8 mcg/min, P=0.913). The difference increased after bicarbonate administration at 1 hour (55.9 vs 58.9 mcg/min, P=0.218) and 3 hours (55.9 vs 66.1 mcg/min, P=0.004). When comparing AKI versus no AKI, there was no significant difference in the mean difference of NE equivalent requirements at any observed time point.

Conclusion

Bolus administration of sodium bicarbonate did not result in a decrease of vasopressor requirements in patients with septic shock. Despite requirements remaining steady for the first 30 minutes, NE and epinephrine rates increased by 1 hour and 3 hours. Further studies with a larger population would be ideal to confirm these findings.

Baggett, Nathen

MICU-PROFEN: Efficacy and Safety of PROpofol plus FENtanyl Versus Propofol Alone for Sedation in Mechanically Ventilated Medical ICU Patients

Baggett, Nathen; Clark, Katie; Fitts, Austin
North Mississippi Medical Center, Tupelo, MS

Background and Purpose

Sedation is commonly required to facilitate mechanical ventilation in critically ill patients. Current intensive care unit (ICU) guidelines support analgosedation strategies combining sedatives with analgesic infusions such as propofol and fentanyl. While this approach may improve patient comfort and reduce sedative requirements, concerns remain regarding potential hemodynamic instability and resource utilization. Evidence directly comparing propofol plus fentanyl with propofol alone remains limited. This study evaluated the safety and efficacy of these sedation strategies in mechanically ventilated medical ICU (MICU) patients.

Methods

This retrospective, single-center cohort study included adult patients admitted to a MICU between April 2024 and November 2025 who required mechanical ventilation and received either propofol alone or propofol plus fentanyl for ≥48 hours. Trauma admissions were excluded. Data was collected through electronic health record review and de-identified prior to analysis. The primary outcome was time to discontinuation of mechanical ventilation. Secondary outcomes included MICU length of stay, all-cause mortality, and hypotension requiring vasopressors. Comparative statistical analyses and regression models were used to evaluate differences between groups.

Results

A total of 140 patients were included (propofol alone n=87; propofol plus fentanyl n=53). Mean time to discontinuation of mechanical ventilation was similar between groups (7.93 vs 8.02 days; p=0.94). The propofol plus fentanyl group was associated with longer MICU length of stays (OR 0.79, 95% CI 0.56 – 1.12, p=0.19) but also associated with lower all-cause mortality (OR 0.82, 95% CI 0.57 - 1.16, p=0.25), though neither reached statistical significance. Hypotension requiring vasopressors occurred frequently in both groups (78.2% vs 84.9%; p=0.45).

Conclusion

In mechanically ventilated MICU patients, the addition of fentanyl to propofol sedation demonstrated comparable ventilator duration and ICU length of stay with a numerically lower mortality rate compared with propofol alone. While statistical significance was not achieved, the observed trends suggest potential clinical benefit and support further investigation of analgosedation strategies in larger cohorts. Expanded studies may help clarify the impact of analgosedation approaches on outcomes in critically ill patients.

Bailey, Lynnette

Warfarin Management Using a Paired Clinic Model: Outcomes of a Pharmacist-Resident Collaborative Anticoagulation Program

Bailey, Lynnette – Author; Liddell, Kodi – Co-Author, Hays, Erin Beth – Co-Author
University of Arkansas for Medical Sciences (UAMS) Medical Center, Little Rock, AR

Background and Purpose

Warfarin remains an essential anticoagulant for patients where direct oral anticoagulants are not appropriate. Monitoring the international normalized ratio (INR) is critical to minimize thromboembolic and bleeding complications while time in therapeutic range (TTR) is a surrogate marker for appropriate patient management. Pharmacist-led anticoagulation services have demonstrated improved INR control, reduced adverse events, and enhanced patient satisfaction compared with physician-managed care. Additionally, structured clinic models may support experiential education for medical residents through longitudinal patient management. This study aims to evaluate the clinical and process-related impact of transitioning from provider-led to pharmacist-led warfarin management utilizing a paired clinic model incorporating a medical resident.

Methods

This study is a single-center, retrospective chart review of adult patients who received warfarin management at a rural family medical center and residency program in the UAMS Health System. Historically, warfarin was managed primarily by family medicine residents and attendings until the implementation of the pharmacist-led paired clinic model in July 2025. Patients were categorized into two cohorts based on timing relative to implementation: physician-led warfarin management (pre-implementation) and pharmacist-led warfarin management using a paired clinic model (post-implementation). Each cohort was evaluated over a 6-month observation period. The paired clinic model incorporated collaboration between medical residents and clinical pharmacist who facilitated warfarin management and resident education. Previously, residents indicated a lack of understanding and confidence with warfarin management. The paired-clinic model, provides residents with more training focused on warfarin therapy and approaches to anticoagulation. Data collected included patient demographics, warfarin indication, INR values, target INR range, TTR, monitoring frequency, time to follow-up after INR values, proportion of INRs outside the target range, and medication-related safety factors. The primary outcome was time in therapeutic range. Secondary outcomes included time to follow-up after INR results, INR monitoring frequency, major bleeding events, thromboembolic events, and anticoagulation-related hospitalizations or emergency department visits. Educational outcomes were assessed using pre- and post-implementation surveys that assessed resident competency and confidence in warfarin management. Continuous variables will be reported as mean ± standard deviation or median (IQR), as appropriate, and categorical variables as frequencies and percentages.

Results

Results to be described.

Conclusion

Conclusion to be described.

Barfield, Catherine

Title: Predictive Value of Nasal MRSA Colonization for Subsequent MRSA Skin and Soft Tissue Infections in Hospitalized Patients

Barfield, Catherine; Evans, Amy; Mitchell, Kristie; Moore, Sarah Beth; Ruckel, Cassidy
Baptist Memorial Hospital-Memphis; Memphis, TN

Background/Purpose:

Methicillin-resistant Staphylococcus aureus (MRSA) is a common cause of skin and soft tissue (SSTIs) and contributes to increased healthcare costs. MRSA polymerase chain reactions (PCR) screening is commonly used to guide empiric antibiotic therapy, particularly for respiratory infections, due to its high negative predictive value (NPV). However, the predictive value of MRSA nasal colonization for SSTIs remains less well defined. This study aimed to evaluate the diagnostic performance of MRSA nasal PCR screening for predicting MRSA SSTIs in hospitalized adults.

Methods:

This single-center, retrospective chart review included hospitalized adult patients diagnosed with a SSTI at admission and with a MRSA nasal swab within 48 hours of admission, with a study period from July 1st 2023-July 1st 2025. Patients were excluded if there is missing culture or microbiology data, if a MRSA nasal swab was not performed, or if the patient had an SSTI prior to admission or treated with IV antibiotics. The primary outcome was the NPV of a negative MRSA nasal screen for ruling out MRSA SSTIs. Secondary outcomes included sensitivity, specificity, and the positive predictive value (PPV).

Results:

Of 146 patients screened, 33 met inclusion criteria. The mean age was 55.6 years, and 55% were male. MRSA nasal colonization was detected in 5 patients (15.2%), while 3 patients (9%) had culture-confirmed MRSA SSTIs. MRSA nasal PCR demonstrated a sensitivity of 67% and specificity of 90%. The NPV for ruling out MRSA SSTIs was 96%, while the PPV was 40%. McNemar's test demonstrated no statistically significant discordance between MRSA nasal screening and wound culture results (p=0.63). Despite the low incidence of MRSA SSTIs, empiric anti-MRSA therapy was administered to 30 patients (91%).

Conclusion:

MRSA nasal PCR screening demonstrated a high NPV for ruling out MRSA SSTIs in hospitalized adults. These findings suggest that a negative MRSA nasal screen may be useful to support early de-escalation of empiric anti-MRSA therapy. However, the limited PPV indicates that positive nasal screens should not be used alone to guide empiric MRSA-directed treatment. Further studies with larger patient populations are needed to better define the role of MRSA nasal screening in guiding SSTI management.

Bauswell, Hannah

Evaluation of Ceftazidime Substitution for Cefotaxime in Infants 6 Months and Younger

Bauswell, Hannah[1,2]; Fly, James[1,2]; Lee, Kelley[1]
Le Bonheur Children's Hospital[1] and The University of Tennessee Health Science Center[2]

Background and Purpose

Cefotaxime, a 3rd-generation cephalosporin frequently used in neonates and infants, was discontinued by its sole U.S. manufacturer in 2018. Ceftazidime, another 3rd-generation cephalosporin with added activity against *Pseudomonas aeruginosa*, is a recommended substitute for cefotaxime. However, some studies have demonstrated increases in multidrug-resistant (MDR) infections and cases of necrotizing enterocolitis (NEC) with ceftazidime compared to cefotaxime. Although the FDA allows importation of cefotaxime from Canada through an approved distributor, the potential financial impact of doing so at our institution has not been assessed. This study evaluated the volume of ceftazidime use, the comparative cost of cefotaxime based on current utilization, and institutional rates of adverse effects after ceftazidime exposure.

Methodology

This was a single-center, retrospective chart review of patients 6 months or younger postnatal age who received at least 1 dose of ceftazidime between April 1, 2025 and September 30, 2025. Patients were excluded if they required antipseudomonal coverage. Additionally, patients were excluded from secondary outcome analysis if they expired within 24 hours of receiving their first dose or received ceftazidime prior to the study period. The primary outcome was the total volume of ceftazidime use as a substitution for cefotaxime. Secondary outcomes were the incidence of MDR infections and the incidence of stage II-III NEC.

Results

A total of 144 patients were included in the analysis of the primary outcome and 141 in the secondary outcomes. The median duration of ceftazidime was 2 days and the median number of doses administered was 6.5 for the first course. Estimated minimum cost for 1 year of cefotaxime was over 300 times the cost for an equivalent amount of ceftazidime. Eight patients (5.7%) developed MDR infections following ceftazidime exposure, and three patients (2.1%) developed stage II–III NEC

Conclusion

These findings highlight the need for continued advocacy from pediatric healthcare professionals to ensure reliable access to safe antimicrobials within the U.S. market for the youngest patients.

Beavers, Kaitlyn

Evaluating Heart Failure Readmission Rates After Pharmacist-Led Medication Education

Beavers, Kaitlyn and Carver, Niki
NEA Baptist Memorial Hospital Jonesboro, Arkansas

Background/Purpose

In 2012, the Centers for Medicare & Medicaid Services (CMS) started the Hospital Readmissions Reduction Program (HRRP) covering four major health conditions looking at 30-day readmission rates. At NEA Baptist Hospital, readmission rates for heart failure disease are currently 22.1%, which is slightly higher than the national average of 19.7%. The objective of this study is to evaluate readmission rates at NEA Baptist Hospital for heart failure patients after pharmacist led medication education intervention, per standard of care.

Methods

This study was approved by the Institutional Review Board and is a retrospective cohort study. Subjects were identified using the program NEA Daily Heart Failure Admissions on EPIC. Chart review was completed from 10/15/2025 to 01/20/2026. Charts for any patients admitted in this timeframe with a heart failure ICD-10 code were reviewed. When a subject met the inclusion criteria, the subject was approached by myself, Kaitlyn Beavers, for medication education.

Results

In this study, a total of 39 subjects participated in this research project. Out of the 39 subjects who received heart failure medication education, 12 (30.7%) were readmitted for heart failure within 30 days of education.

Conclusion

Pharmacist provided medication education did not reduce 30-day readmission rates in this study at NEA Baptist Hospital. Future research should explore additional interventions, such as medication assistance, to reduce barriers with cost and access. Study limitations included small sample size, single-center design, patients being discharged before education could be provided, interruptions from other team members, varying levels of patient interest, limited patient understanding of their diagnosis, and variability in physician-patient communication.

Black, Addison

Evaluating the Safety and Efficacy of Standard vs. Higher Dose Enoxaparin for VTE Prophylaxis in Hospitalized Patients with Obesity

Black, Addison – Author[1]; Eldred, Sarah – Co-Author[1]
[1]University of Arkansas for Medical Sciences Medical Center, Little Rock, AR

Background and Purpose

Obesity is a well-established risk factor for venous thromboembolism (VTE), and over 40% of U.S. adults meet criteria for obesity according to data from the Centers for Disease Control and Prevention. Hospitalized patients are at an increased risk of VTE due to immobility and acute illness, further compounding risk in patients with a body mass index (BMI) ≥40 kg/m². Enoxaparin is commonly used for VTE prophylaxis as a fixed dose that may not account for altered pharmacokinetics in patients with severe obesity. Institutional practices often include empiric dose escalation based on clinical expert opinion, though supporting evidence remains limited. Current strategies include either an increased fixed dosing regimen (40 mg twice daily for BMI ≥ 40 kg/m^2 or 60 mg twice daily for BMI ≥ 50 kg/m^2) or weight-based dosing (0.5 mg/kg twice daily). This study aims to evaluate the safety and efficacy of standard versus higher dose enoxaparin for VTE prophylaxis in hospitalized medical patients with obesity.

Methods

This single-center, retrospective cohort chart review included adults (≥18 years) with BMI ≥40 kg/m² admitted to UAMS Medical Center between July 2024 and July 2025 who received prophylactic enoxaparin for ≥ 2 days. Patients who received therapeutic anticoagulation (during hospitalization or prior to admission), had a history of heparin-induced thrombocytopenia, had a platelet count of <50 K/µL before receiving enoxaparin, were pregnant, had impaired renal function (Creatinine Clearance <30 mL/min), or were surgical patients were excluded. The primary outcome is a composite of major bleeding and clinically relevant non-major bleeding (CRNMB) as defined by International Society on Thrombosis and Haemostasis criteria. Secondary outcomes include incidence of VTE, incidence of major bleeding, incidence of CRNMB, 30-day readmission rate, and hospital length of stay. Descriptive statistics and comparative analyses will be performed with a significance threshold of $p<0.05$.

Results

Results to be described.

Conclusion

Conclusion to be described.

Black, Jaden

A Retrospective Analysis of MRSA Acquisition Trends Over Time

Jaden D. Black, Maegan L. Rogers, David Hill
Regional One Health, Memphis, Tennessee

Background

Hospital-acquired infections continue to be a major concern for healthcare systems worldwide. Staphylococcus aureus is a common bacterium that can be acquired in both hospital and community settings. With Methicillin-resistant Staphylococcus aureus (MRSA) being a focus of health-systems' infection prevention and antimicrobial stewardship programs. Hospitals are required to report MRSA events to the Center of Disease Control's National Health and Safety Network (NSHN), with monthly data submissions. To avoid duplication, NHSN protocols classify a positive MRSA culture as unique if it occurs more than 14 days after a previous culture from the same patient and anatomical site. However, applying these definitions accurately during data analysis can be challenging. Based on 2023 surveillance data, Tennessee reported the eighth highest number of MRSA cases in the United States, placing increased attention on MRSA prevention and treatment efforts within the state.

Methodology

This study is a single-center, retrospective analysis of adult patients admitted to Regional One Health between 1/1/2000 and 12/31/2025, who met criteria for a MRSA infection during hospitalization based on NHSN and CDC definitions. Data collected included demographics, culture results, and adherence with hospital infection prevention protocols for MRSA. Patients were excluded if they were incarcerated, pregnant, or younger than 18 years of age.

Results

A total of 894 MRSA-positive cases were identified during the study period. Of these, 41.6% (n = 372) were classified as community-acquired, while 58.4% (n = 522) were categorized as hospital-acquired infections. Among patients with duplicate positive cultures, 51% (n = 50) had a subsequent positive result within seven days of the prior culture. Hospital-wide compliance with our universal nasal alcohol swab protocol was approximately 80%.

Conclusion

Preventing high rates of MRSA infections within the hospital setting remains challenging due to the numerous pathways through which MRSA can be acquired and transmitted. Moving forward, efforts should focus on identifying targeted strategies to limit MRSA spread within the facility and reduce the risk of hospital-acquired MRSA acquisition.

Bonnell, Cecilia

Comparison of High vs Standard Dose Rocuronium on Time to Extubation for Patients Undergoing Rapid Sequence Intubation

Bonnell, Cecilia; LaBeff, Lauren; Martin, Zachary; Smith, Priscilla
Ascension Saint Thomas Rutherford, Murfreesboro TN

Background and Purpose

Rapid sequence intubation (RSI) is a vital intervention in emergency and critical care settings to secure the airway. Rocuronium is a non-depolarizing neuromuscular blocker dosed by ideal body weight (IBW). Standard doses (0.6–1.2 mg/kg) produce paralysis within 2–3 minutes and last 20–30 minutes, while higher doses (greater than 1.2 mg/kg) shorten onset, but prolong duration. Both underdosing and overdosing carry clinical consequences, including difficult intubation or delayed recovery, respectively. Higher doses may improve first-pass intubation, while downstream effects remain uncertain. This study was designed to evaluate the impact of rocuronium dosing on time to extubation in patients undergoing RSI.

Methods

This was a single-center, retrospective chart review of adults who underwent RSI with rocuronium between January 1st through December 31st 2024. The primary outcome was the difference in time to extubation between high dose rocuronium (greater than 1.2 mg/kg IBW) and standard dose (0.6–1.2 mg/kg IBW). Secondary outcomes included delirium within 48 hours post-extubation, ICU length of stay, and peri-intubation hypotension between the dosing groups.

Results

A total of 402 patients who underwent RSI for non-surgical indications were screened, with 81 patients (20%) meeting inclusion criteria. Of these, 55 (68%) received high dose rocuronium and 26 (32%) received standard dose rocuronium. No statistically significant difference was observed in the time to extubation between high dose group and standard dose group (2.4 days vs 2.8 days, respectively; p=0.365). There were also no statistically significant differences for delirium within 48 hours post-extubation (p=0.113), ICU length of stay (p=0.840), or peri-intubation hypotension (p=0.050).

Conclusions

In this study, high dose rocuronium for rapid sequence intubation was not associated with statistically significant increases in downstream adverse outcomes. Limitations include the single-center design, unequal sample sizes, potential differences in illness severity, weight-based dosing variability, and variability in delirium assessment. Larger prospective studies are needed to confirm these findings.

Boshra, Carolin

Efficacy of Termination of Supraventricular Tachycardia with Adenosine: Does Initial Dose Matter?

Boshra, Carolin- Author; Adkins, Cortney – Co-Author; Oakley, Christian- Co-Author
Tristar Summit Medical Center, Hermitage, TN

Background and Purpose

Adenosine is the recommended first-line agent for the treatment of supraventricular tachycardia (SVT). Standard dosing strategy includes an initial 6 mg bolus, followed by a 12 mg dose if the initial bolus fails to terminate the episode. Although the efficacy of adenosine is dose-dependent, multiple studies show that 6 mg dose terminates most SVT episodes, while a subset of patients requires dose escalation to 12 mg. This has raised the important clinical question of whether starting with a 12 mg dose could improve conversion rates and reduce time to termination without markedly increasing adverse effects.

Methods

In this retrospective, single-center observational review conducted from January 1, 2022, to August 31, 2025, patients were identified using a clinical surveillance tool. The primary endpoint was SVT termination confirmed by ECG or provider documentation following adenosine 6 mg versus 12 mg. Secondary endpoints included need for additional interventions and time to SVT termination. Patients were excluded if they received any rate-controlling medications prior to adenosine administration, had non-SVT rhythms on ECG, or polymorphic wide-complex tachycardia. Statistical analyses were conducted using chi-squared test for categorical data and t-test for continuous data, with $p < 0.05$ considered statistically significant.

Results

After screening 261 patients, 155 met inclusion criteria: 121 received 6 mg of adenosine and 34 received 12 mg. Baseline characteristics were comparable between the two groups. The mean weight (91.7 vs 85.3 kg) and BMI (31.4 vs 29.9). Initial SVT termination occurred in 66.1% of the 6 mg group and 76.5% of the 12 mg group ($p=0.24$). Mean time to termination was similar (4.1 vs 4.4 seconds). Recurrence during the same visit was higher in the 12 mg group. Among patients with BMI >/=30, termination rates were higher with adenosine 12 mg compared to 6 mg (72.2% vs 54.8%, $p=0.18$).

Conclusions

Although not statistically significant, initial treatment with adenosine 12 mg was associated with higher termination rates, particularly in patients with higher BMI. Further studies are still needed to confirm these observations and evaluate the safety and efficacy of higher initial adenosine doses in this population.

Brewer, StefaniRae

The Role of Desmopressin in Intracranial Hemorrhage Among Patients Taking Aspirin Versus Dual Antiplatelet Therapy

Brewer, StefaniRae; Clark, Kacie; Henderson, Anna; Hayes, Lisa
Methodist University Hospital

Background

Intracranial hemorrhage (ICH) has a high mortality risk which is further increased by use of antiplatelet agents. Evidence of benefit for desmopressin (DDAVP) in ICH remains mixed. Few studies compare outcomes across antiplatelet regimens such as single antiplatelet (aspirin) versus dual antiplatelet therapy (DAPT). This study evaluates functional and safety outcomes in ICH following DDAVP in these two groups.

Methods

This single-center, retrospective cohort included adults with ICH who received DDAVP for antiplatelet reversal between October 2024 – December 2025. Patients were excluded if neurosurgical intervention occurred within 24 hours of DDAVP administration or if death occurred within 24 hours of presentation. Seventy-five patients were included with 54 and 21 in the aspirin and DAPT groups respectively. The primary outcome was change in Modified Rankin Scale (RS) from baseline to discharge. Secondary outcomes included change in National Institutes of Health Stroke Scale (NIHSS), incidence of adverse effects as well as receipt of platelet transfusion.

Results

Of baseline characteristics evaluated, incidence of coronary artery disease (57.1% vs 24.5%; p=0.006) and subdural hemorrhage (57.1% vs 22.6%; p=0.004) were higher in DAPT, while intraparenchymal hemorrhage was more common in aspirin patients (79.2% vs 47.6%; p=0.006). Additional baseline characteristics including ICH score and age were similar. No significant differences were observed between aspirin and DAPT groups for the primary outcome of change in mRS (p=0.348). Additionally, no differences were identified for: change in NIHSS, discharge mRS, discharge NIHSS, ICU or hospital length of stay or adverse events. Among patients who received DDAVP before their 6-hour repeat imaging, most had stable imaging (71.4% vs 77.4%; p=1.000). DAPT patients were more likely to receive a platelet transfusion (19.0% vs 1.9%; p=0.020).

Conclusion

Among ICH patients taking antiplatelet therapy who did not receive surgical intervention, DDAVP use was associated with similar functional and safety outcomes in those on aspirin versus DAPT. Higher platelet transfusion use in DAPT patients may reflect concern for greater platelet inhibition. Further prospective evaluation should be considered to determine if DDAVP use should be recommended differently based on pre-arrival use of single versus dual antiplatelet therapy.

Brewster, Caitlin

Evaluating the Impact of Education Interventions on Completion of the SEP-1 Bundle with Transfer Patients

Brewster, Caitlin; Austin, Whitney; Bewley, Claire; Null, Cody; Root, Cheyenne
Baptist Health Medical Center, Little Rock, Arkansas

Background and Purpose

Septic patients requiring transfer to a higher level of care experience higher mortality rates and delay in appropriate therapy compared to direct admissions. Despite this, the role of transfer center education in facilitating the CMS SEP-1 bundle remains unstudied. This study aims to evaluate whether educating transfer center personnel on sources of infection and appropriate broad-spectrum antibiotics can bridge SEP-1 bundle completion and improve patient outcomes. We will analyze the success of this intervention by measuring SEP-1 completion rates in the pre- and post- education groups as our primary outcome. Secondary outcomes include time to appropriate antibiotics, appropriateness of antibiotics given, hospital length of stay, inpatient mortality, and pharmacy's impact (ivents) between pre- and post-education groups.

Methods

This multi-center, retrospective cohort study evaluated adult patients with sepsis transferred within Baptist Health facilities to Baptist Health-Little Rock emergency department (Duration: 2019; 2022–2024). Patients required IV antibiotics and fluid resuscitation. Exclusions included chronic ventilation, DNR/DNI status, mechanical circulatory support, mixed shock, COVID-19, direct ICU admission, or transfer from non-affiliated Baptist Health facilities. Categorical data points were analyzed with Chi-square and continuous variables with Mann-Whitney U ($p < 0.05$). Descriptive statistics were performed using Excel.

Results

The primary endpoint of SEP-1 bundle completion at transferring facilities yielded no significant difference between groups (24.6% pre-education vs. 25.0% post-education; $p > 0.05$). Among secondary endpoints, a significant reduction was observed in the percentage of patients who never received appropriate antibiotics, decreasing from 29.7% in the pre-education group to 11.1% in the post-education group ($p = 0.049$). However, there were no significant differences in the overall appropriateness of antibiotics between hospitals. Median time to antibiotic administration was longer in the post-education group (314.5 min [IQR 135.8–467.3]) compared to the pre-education group (172.5 min [IQR 120.3–414.3]) and was not statistically significant. Other secondary outcomes, including bundle compliance rates across individual transferring hospitals, remained similar between the two study periods.

Conclusions

There were no differences between the pre-education and post-education groups for completion of the SEP-1 Bundle.

Brian, Maggie

A retrospective comparative analysis of nifedipine versus amlodipine when used in conjunction with nicardipine for treatment of hypertensive emergency

Maggie A. Brian[1], R. Wesley Savage[1], David Hill[1], Julio Lanfranco Molina[2]
[1]Regional One Health, Memphis, Tennessee
[2]University of Tennessee Health Science Center, Memphis, Tennessee

Background

Hypertensive emergency is a cause of hospital admissions nationwide with greater than 80% of emergency department visits for hypertensive emergency leading to an inpatient admission. Treatment often requires the use of continuous intravenous medications for effective blood pressure control in order to prevent permanent end-organ damage. Nicardipine, an intravenous dihydropyridine calcium channel blocker, is often utilized for this purpose. Nicardipine initiation requires a higher level of care, limiting its use to intensive care units (ICU) due to the needed titrations and risk of hypotension. Therefore, it should be beneficial to quickly transition patients to an oral hypertension regimen to limit ICU stays. Two previous studies proved that early addition of oral antihypertensives can help clinicians taper down nicardipine drips in patients with intracerebral hemorrhage, resulting in decreased ICU length of stay and fewer overall costs. However, these studies were small and offer no guidance on which regimen to choose to achieve nicardipine discontinuation. There is a current knowledge gap in guidelines for determining the best option of oral antihypertensive add-on medication to nicardipine and the time frame in which it would be best for it to be initiated. Amlodipine and nifedipine are both common oral dihydropyridine calcium channel blocker options. Due to overlapping mechanisms of action, they are attractive choices for weaning of nicardipine. The primary objective of this study is to examine the time to discontinuation of IV nicardipine with the use of oral amlodipine or nifedipine in the management of hypertensive emergency.

Methods

This is a single-center, retrospective study of adult patients admitted to Regional One Health's medical intensive care service between April 1, 2019, and July 31, 2025 with a diagnosis of hypertensive emergency and on a nicardipine drip for greater than 2 hours. Patients were excluded if they were not initiated on amlodipine or nifedipine while on nicardipine drip, tested positive for SARS-COV-2, or if they were pregnant, incarcerated, or less than 18 years of age.

Results

Results will be described at the time of the presentation.

Conclusion

Final conclusions will be described at the time of the presentation.

Brothers, Marlee

Evaluating appropriate use and cost-savings of dalbavancin in the NEA Baptist Memorial Emergency Department

Brothers, Marlee and Carver, Niki
NEA Baptist Memorial Hospital Jonesboro, AR

Background/Purpose

Skin and soft tissue infections (SSTIs) are commonly treated with oral antibiotics, but many patients still require hospitalization to be treated with intravenous (IV) antibiotics. Dalbavancin, a long-acting lipoglycopeptide with a half-life of ~346 hours, enables treatment with one IV dose, making it an ideal option for outpatient management of SSTI's and has also been shown to reduce hospital admissions and shorten the length of stay. Dalbavancin is also approved for treatment of off-label gram positive bacterial infections. At the NEA Baptist Emergency Department (ED) dalbavancin is used for outpatient treatment of SSTIs in patients that meet the criteria for use; adults with severe suspected-MRSA SSTIs that require $\geq$ 7 days of IV antibiotic therapy; or MRSA osteomyelitis, and patients in which there are concerns about compliance to outpatient antibiotic treatment. Due to increased use and the cost of dalbavancin, the pharmacy team conducted a medication use evaluation (MUE) aimed to assess appropriateness of use and determine potential cost savings compared to in-patient treatment.

Methods

This Institutional Review Board approved, retrospective MUE included patients $\geq$ 18 years of age, that received a dose of dalbavancin in the NEA Baptist ED between August 9th 2023 – August 9th 2025. A chart review was conducted to assess adherence to the criteria for use. Cost analysis compared dalbavancin acquisition cost and administration cost in the ED, with the hospital's average inpatient costs for DRG 541, 602, and 603.

Results

A total of 104 patients received a dose of dalbavancin during the 24-month study period. Of these 94 (90%) met the criteria for use, and 77 (74%) had a diagnosis of SSTI or osteomyelitis. Among those 77, 75 (97%) met the DRG diagnosis criteria for DRG 541, 602, and 603. 10 of 104 patients met at least one dalbavancin exclusion criteria including; diagnosis of diabetic foot infection, documented vancomycin allergy, and documented hepatic impairment or liver disease. For the 75 DRG-matched patients, calculated hospital savings totaled $217,114.16.

Conclusion

Dalbavancin use in the NEA Baptist ED was largely appropriate and resulted in significant cost savings compared to standard inpatient treatment. Opportunities remain to enhance adherence to criteria for use through additional provider education.

Brown, Isaiah

Peripheral Artery Disease Screening in High-Risk Patients at a Mississippi Delta Federally Qualified Health Center

Brown, Isaiah[1]; Brown, Meagan[1,2]; Warren, Chloe[1]; Barber, Katie[1]; Garrett, Mieyah[1]
[1]University of Mississippi School of Pharmacy, Oxford, Mississippi
[2]G.A. Carmichael Family Health Center, Canton, Mississippi

Background and Purpose

Peripheral artery disease (PAD) is a common yet underdiagnosed circulatory disorder associated with increased risk of myocardial infarction, stroke, and lower extremity amputation. The purpose of this study was to evaluate PAD screening practices among high-risk patients at a Federal Qualified Health Center (FQHC) in the Mississippi Delta and identify potential gaps in detection and management.

Methods

This retrospective chart review was conducted at G.A. Carmichael Family Health Center, an FQHC serving medically underserved patients in the Mississippi Delta. The study was determined exempt by the University of Mississippi Institutional Review Board. Eligible patients were male individuals aged ≥50 years with a history of current or former tobacco use and at least two additional PAD risk factors including diabetes, hypertension, dyslipidemia, chronic kidney disease, or cardiovascular disease. Patient encounters between January 1, 2025 and June 30, 2025 were identified through the EPIC electronic health record using the SlicerDicer analytics tool. PAD screening was defined as documentation of ABI testing. Data collected included screening completion, PAD diagnosis, initiation of guideline-recommended pharmacotherapy, and follow-up care. Descriptive statistics summarized screening rates and outcomes, and chi-square analysis evaluated the association between ABI screening and PAD diagnosis.

Results

A total of 194 patients met inclusion criteria. ABI screening was performed on 27 of 194 eligible patients (13.9%), while 167 patients (86.1%) did not undergo screening during the study period. Fourteen patients (7.2%) had a documented diagnosis of PAD, and all diagnoses occurred among patients who underwent ABI testing. Among screened patients, 14 of 27 (51.9%) were diagnosed with PAD. No PAD diagnoses were identified among patients who did not receive ABI screening. Chi-square analysis demonstrated a statistically significant association between ABI screening and PAD diagnosis ($p < 0.001$). Among patients diagnosed with PAD, 12 of 14 (85.7%) initiated guideline-recommended pharmacotherapy following diagnosis and 7 of 14 (50.0%) had documented follow-up appointments.

Conclusions

PAD screening rates among high-risk patients at this FQHC were low despite a high diagnostic yield among screened individuals. These findings suggest that implementing structured screening workflows and pharmacist-supported interventions may improve early identification and management of PAD in high-risk, underserved populations in the Mississippi Delta.

Brown, Madison

Outcomes of Anticoagulation Stewardship on use of Concomitant Antiplatelets and Anticoagulants

Layman, Sara, Neu, Daniel, Sullivan, Joshua
Lt. Col. Luke Weathers, Jr. Veterans Affairs, Memphis, TN

Background and Purpose

Anticoagulants and antiplatelets are often prescribed together for conditions like atrial fibrillation and cardiovascular disease. As this combination can significantly increase the risk of bleeding, it is imperative to evaluate concomitant utilization. A tool, known as the Direct-Acting Oral Anticoagulant (DOAC) dashboard was developed within the VA to facilitate DOAC population management. This study investigated the prescribing patterns of combined antiplatelet and DOAC use in patients identified by the DOAC Dashboard and the utilization of this dashboard by clinical pharmacy practitioners (CPPs) to intervene for appropriate discontinuation of DOAC or antiplatelet agents.

Methods

The DOAC Dashboard was utilized to identify patients at the Lt. Col. Luke Weathers, Jr. Veterans Affairs Medical Center (Memphis VAMC), who were concomitantly prescribed antiplatelets and DOACs as of April 1st, 2025. The same report was utilized to identify Veterans on this same combination as of October 1st, 2025. Computerized medical records of patients at the Memphis VAMC identified on these reports were retrospectively assessed. The primary objective was the percentage of patients on concomitant anticoagulation therapy at 6 months compared to baseline. Key secondary objectives include the number and type of CPP recommendations, percentage of CPP recommendations accepted by providers, number of antiplatelets discontinued by providers, number of changes and types of changes to antiplatelet or anticoagulant agents, and number and type of adverse events.

Results

Data collection is still in process. The dashboard identified 254 patients with 175 patients being evaluated. For the primary outcome, 9.5% fewer patients were on concomitant therapy after 6 months compared to baseline. In addition to combined antiplatelet and anticoagulant therapy, 45% of patients evaluated were also prescribed medications that may increase the risk of bleeding. Furthermore, 17% of patients were on triple therapy for an average duration of 10.7 months. Out of 175 patients, 73 patients (41%) received interventions from a CPP, resulting in a total of 175 interventions. Out of the interventions made, 76% were accepted by providers or implemented by the CPP.

Conclusions

Conclusions are still in process pending completion of data collection.

Burbridge, Claire

Reduced-dose compared to standard-dose apixaban for VTE secondary prevention in patients with active cancer

Burbridge, Claire; Gillion, Amanda; Ryan, Tenley
Lt. Col. Luke Weathers Jr. VA Medical Center, Memphis, TN

Background/Purpose

The duration of treatment for patients receiving apixaban for venous thromboembolism (VTE) secondary prevention must weigh risk of VTE recurrence versus bleeding. Long-term anticoagulation is suggested in the ASH guidelines for secondary prophylaxis in patients with active cancer and VTE. Current guidelines recommend reduced-dose apixaban for patients requiring long-term anticoagulation. The API-CAT trial looked at patients with active cancer who were receiving long-term anticoagulation and found that reduced-dose apixaban was noninferior with a lower incidence of clinically relevant bleeding complications after 12 months of treatment. This descriptive study will expand on API-CAT's findings.

Methods

This is an Institutional Review Board-approved, retrospective, multicenter chart review study of adult patients treated at the Lt. Col. Luke Weathers Jr. VA Medical Center (VAMC) or the Tennessee Valley VAMC. Enrolled patients were prescribed apixaban for secondary prevention of VTE, had an active malignancy from December 2021 through July 2023, and followed for up to 24 months. Patients were grouped into those who received standard-dose apixaban (5mg twice daily) and those who received reduced-dose apixaban (2.5mg twice daily) after at least three months of standard-dose apixaban.

Results

A total of 601 patients were screened for exclusion criteria to include 39 patients in the standard-dose group and 20 patients in the reduced-dose group. Baseline characteristics and risk factors for VTE were similar among groups. Risk factors for VTE such as IVC filters, ports, and patients with BMI > 30 were also similar among groups. Five patients in the standard dose group had a recurrent VTE within 24 months compared to no patients in the reduced-dose group (12.8% vs 0%; p=0.156). No differences were found at 24 months in major bleeding (17.9% vs 10%; p=0.704), minor bleeding (33.3% vs 30%; p =0.795), or death (41% vs 25%; p=0.263).

Conclusions

This study suggests that there is no significant difference in VTE recurrence between patients who receive standard vs. reduced-dose apixaban. Additionally, there were no statistically significant differences in any of the secondary outcomes between groups. There was a higher percentage of patients in the standard-dose group that had recurrent VTE, major and minor bleed, and death, which may have clinical implications.

Burton, Luke

Comparative efficacy of sacubitril/valsartan doses on hospitalization for heart failure and mortality in a Veteran population

Burton, Luke, Gust, Will; Douglass, Dana
Memphis VA Medical Center, Memphis, TN

Background/Purpose:

The PARADIGM-HF study demonstrated that in patients with heart failure with reduced ejection fraction (HFrEF), sacubitril/valsartan at a target dose of 97/103mg twice daily (BID) significantly reduced the risk of the composite cardiovascular (CV) death and heart failure hospitalization by 20% relative to enalapril 10mg BID. In an effort to balance the clinical benefits of sacubitril/valsartan with increased risks of symptomatic hypotension, VA prescribers frequently initiate sacubitril/valsartan at doses lower than target dosing, including off-label dosing of 12/13mg BID, for patients unable to tolerate FDA-approved doses. The objective of this project is to compare the effects of low-dose sacubitril/valsartan (12/13mg) to FDA approved doses on hospitalization for heart failure, emergency room visits for HF, and all-cause mortality.

Methodology:

This was an observational, retrospective cohort study of patients treated within VISN 9 Department of Veterans Affairs healthcare network with heart failure prescribed sacubitril/valsartan. A SQL query was conducted to identify patients initially prescribed sacubitril/valsartan at any dose between July 2021 and July 2024. The primary endpoint of this study was heart failure hospitalization, emergency room visit for heart failure, and all-cause mortality within 2 years of study inclusion. Secondary endpoints included individual hospitalization for heart failure, ER visit for heart failure, and all-cause mortality within 2 years. Secondary endpoints included heart failure hospitalization in patients with HFrEF, HFpEF, and HFmrEF alone for heart failure hospitalizations within 2 years of inclusion.

Preliminary Results:

Of 128 patients screened for inclusion, 60 patients were included in the study (6 in 12/13mg group, 35 in the 24/26mg group, 14 in the 49/51mg group, and 6 in the 97/103mg group). Of those included, the average age was 74±37 years, with the majority of patients having HFrEF at time of inclusion. Hospitalization for heart failure occurred for 3 patients (9%) in the 24/26mg group and 1 in the 12/13mg, 49/51mg group, and 97/103mg groups (17%, 7%, 17% respectively).

Conclusion:

Pending completion of data collection and analysis.

Buss, Kinley

Amino Acid Dose in Parenteral Nutrition for Preterm Neonates

Buss, Kinley[1,2]; Afolabi, Titilola[1,2]; Herrera, Oscar[1,2]; Herrington, Catherine Crill[1,2]; Ott, Emily[1,2]
Le Bonheur Children's Hospital[1] and University of Tennessee Health Science Center[2]

Background and Purpose

Preterm neonates require more protein than other populations as they have less lean body mass, immature digestive systems, and little nutrient stores. The American Academy of Pediatrics and American Society of Parenteral and Enteral Nutrition both recommend an initial amino acid dose of 3 g/kg/day for preterm neonates, but their maximum doses differ. Ultimately, there is controversy on initial and maximum amino acid dose for preterm neonates. The purpose of this study was to compare short-term growth outcomes in preterm neonates initiated on parenteral nutrition who received an amino acid dose of <3.5 g/kg/day vs ≥3.5 g/kg/day.

Methods

This was a single-center, retrospective chart review from November 2024 and August 2025. Patients were included if <37 weeks gestational age, on PN for at least two weeks, central line access, and on pediatric amino acid solution at initiation/standard amino acid solution at three months old. The primary outcome was to compare growth outcomes at two weeks, one month, and three months in preterm neonates who received an amino acid dose of <3.5 g/kg/day vs ≥3.5 g/kg/day. Secondary endpoints included the incidence of necrotizing enterocolitis (NEC), acute kidney injury (AKI), or sepsis, time to full enteral feeds, and time to regain birth weight.

Results

A total of 27 patients were included with complete data available for 14 patients for weight and 10 patients for length/head circumference. Weight and length Z-scores decreased significantly from baseline to two weeks and baseline to one month. There was no difference between protein doses across time for weight, length, or head circumference. The high dose protein group had a longer time transitioning to full enteral feeds (36.0 days vs 31.0 days) and regaining birth weight (12.2 days vs 10.5 days), but were not statistically significant. There was a low incidence for NEC, AKI, and sepsis in both groups.

Conclusions

There is no difference in protein dosing in relation to short-term growth outcomes. Given the limited sample size, there is a need for ongoing studies with complete anthropometric data beyond the neonatal period to help show the impact of protein dosing in preterm neonates.

Byrum, Landon

Assessment of Karius Liquid Assay Role in Antimicrobial Prescribing in a Rural Hospital Setting

Byrum, Landon; Fitts, Austin[1]; McCrory, Kim
North Mississippi Medical Center, Tupelo, Mississippi

Background and Purpose:

The Karius Spectrum is a liquid blood assay that allows pathogen detection within 48 hours. The sample is sequenced for detection of over 1,000 fungi, bacteria, DNA viruses, and parasites. Rapid identification of microorganisms is a pillar of treatment for patients where an infectious etiology is unknown. Optimizing treatment and duration of therapy are important stewardship mainstays in supporting appropriate patient centered care.

Methods:

A single center, retrospective, cohort study is being conducted at a large, rural medical center in Tupelo, Mississippi. The target population of this study is patients 18 years and older, who were hospitalized and had a Karius test result. Admissions were reviewed from April 2024 to March 2025. The primary outcome of interest is time of admission to targeted antimicrobial therapy. Secondary outcomes include 30-day all-cause mortality, decrease in antimicrobial use, occurrence of Clostridioides difficile, and a comparison of resulted cultures of the site of infection.

Results:

A total of 100 assays were ordered between April 2024 and March 2025. Our analysis included 53 patients with a positive Karius assay. It was observed that it took an average of 2.8 days from a positive result of the assay for a regimen change to take place. Only seven Karius assays matched results from positive cultures. A total of 83% of patients in the Karius group saw a targeted change to the antimicrobial regimen. Five patients were documented to have had a *C. difficile* infection at the start or during the hospitalization. There was an average decrease of 0.85 antibiotics per patient after Karius result.

Conclusion:

The Karius liquid assay should remain reserved for patients where an infectious etiology cannot be determined. Policies and protocols should be developed to ensure quick reaction to Karius results.

Calvasina, Alexis

Evaluation of Institutional Risk Factors for Hearing Loss in the Neonatal Intensive Care Unit

Calvasina, Alexis[1,2]; Fly, James[1,2]; Arnold, Sandra[1]; Lee, Kelley[1]; Shapiro, Kate[1]; Talati, Ajay[1]
Le Bonheur Children's Hospital[1] and University of Tennessee Health Science Center[2]

Background and Purpose

Hearing loss during the neonatal period is typically irreversible and while not common, there are multiple institutional risk factors that can increase this occurrence. Risk factors such as a neonatal intensive care unit (NICU) stay greater than five days, very low birth weights, genetic factors, and use of ototoxic agents all increase a neonate's likelihood of developing hearing loss. The purpose of this study is to investigate risks associated with increased hearing loss within our NICU population, including exposure to aminoglycosides, loop diuretics, vancomycin, and other secondary outcomes.

Methods

This was a single-center, retrospective case control study that examined neonates in Le Bonheur's NICU with documented hearing screens and were admitted between April 1, 2024 to October 31, 2025. Patients were excluded if they were transferred to our NICU at greater than 72 hours of life. Cases consisted of patients who failed their initial hearing screen and the follow up auditory brainstem response, while controls were patients that passed their initial hearings screen. The primary outcome was ototoxic medication related risk factors for hearing loss in our institution's NICU. The secondary outcomes were the non-medication related risk factors for hearing loss in our institution's NICU.

Results

A total of 54 patients were analyzed for primary and secondary outcomes. For the primary outcomes, there were no statistically significant results except if a patient was receiving greater than 48 hours of vancomycin. This category consisted of eleven (91%) cases and three (37%) controls (29.3 [95% CI 2.5-336.4]). For the secondary outcomes, the only result of statistical significance was for suspected genetic syndromes in which nine (33.3%) of cases and two (7.4%) of controls were included (6.3[95% CI 1.2-32.4]).

Conclusion

In our cases, no association between gentamicin or loop diuretic exposure and hearing loss were identified. Vancomycin exposure longer than 48 hours reached statistical significance; however, the confidence interval was extremely large, and the small sample size makes these findings questionable.

Carpenter, Ashlyn

Timing of Analgosedation Following Rapid-Sequence Intubation and Its Impact on Intensive Care Unit Outcomes in Veterans

Carpenter, Ashlyn and Ross, Robert
G.V. (Sonny) Montgomery VA Medical Center, Jackson, Mississippi

Background and Purpose

Rapid-sequence intubation (RSI) occurs in emergent settings, generally when patients are in dire respiratory distress. RSI begins by administering etomidate, so providers may paralyze and intubate; however, due to its short duration of action (5 minutes), patients may begin to regain consciousness while the paralytic remains effective. Analgosedation (analgesics and/or sedation) administration timing is crucial to prevent patient awareness, pain, and trauma. This study aimed to evaluate the time to analgosedation following RSI and determine its impact on Veteran outcomes.

Methods

This single-center, retrospective study included Veterans who underwent RSI from 1 January 2023 through 31 December 2025 in the intensive care unit (ICU) or the emergency department (ED). The primary objective evaluated the percentage of successful extubations (defined as 48 hours without re-intubation) among the following three groups: Veterans receiving analgosedation within <15 minutes of intubation, 15-30 minutes of intubation, and > 30 minutes of intubation. The secondary objectives compared ICU length of stay (LOS), days on the ventilator, and mortality rate during hospitalization among the same three groups.

Results

A total of 34 intubations were included in this study. The group receiving analgosedation within 15-30 minutes had the highest rate of successful extubations at 83.33% (p = 1.00), followed by the <15 minutes group at 75.00% (p = 1.00), and then the >30 minutes group at 58.33% (p = 0.69). Median ICU LOS among the <15 minutes group, 15-30 minutes group, and > 30 minutes group were 8.00 days [3.00, 12.00], 8.00 days [2.50, 11.50], and 9.50 days [3.00, 12.25], respectively. Median days on the ventilator were 2.46 days [1.02, 3.87], 2.26 days [1.41, 5.59], and 3.62 days [1.84, 6.90]. Mortality rate was 25.00% (p=1.00), 0.00% (p=0.16), and 54.54% (p=0.23).

Conclusions

Increased timing to analgosedation resulted in fewer successful extubations and a higher mortality rate; however, these results were not statistically significant. Lack of documentation during RSI lead to multiple exclusions and a small sample size, revealing the need for RSI protocols at our facility and further research to evaluate analgosedation timing effects following RSI.

Chahal, Simran

Impact of Amiodarone Bolus Given Post-CABG on the Occurrence of Post-Operative Atrial Fibrillation

Chahal, Simran; Patel, Sneha; Darnell, Toni; Turner, Ben; Dickerson, Wade
Ascension Saint Thomas Rutherford Hospital, Murfreesboro, TN

Background/Purpose

Post-operative atrial fibrillation (POAF) is a major concern for patients undergoing cardiac surgery with an incidence rate of 20-60%. POAF has been shown to significantly increase morbidity and mortality and is linked to higher postoperative stroke risk, longer hospital stays, and increased healthcare expenditures. The purpose of this study was to evaluate whether administration of an amiodarone bolus immediately following coronary artery bypass graft (CABG) surgery reduced the incidence of POAF and improved patient outcomes.

Methods

This was a single-center, retrospective chart review of patients undergoing CABG surgery from April to December 2023. Patients were stratified into pre- and post-implementation cohorts based on the institutional implementation of routine post-operative amiodarone bolus administration. The primary outcome was the incidence of POAF between these groups. Secondary outcomes included ICU length of stay, patient-specific risk factors for increased rates of POAF, and all-cause mortality rate between groups.

Results

Of the 138 patients initially screened, 52 were excluded, most commonly due to a recent history of myocardial infarction, leaving 86 patients who met inclusion criteria. The two groups were evenly split, with 44 patients (51%) in the pre-implementation bolus group and 42 patients (49%) in the post-implementation non-bolus group. Analysis of the primary outcome showed no statistically significant difference in the incidence of POAF between the patients who received an amiodarone bolus (n=13) and those who did not (n=15) (p=0.66). Additionally, there was no statistical significance in ICU length of stay (p=0.051) or mortality rates between groups. Hypertension was present in all patients who developed POAF, and diabetes occurred in 62% of the bolus group and 53% of the non-bolus group.

Conclusions

Overall, administration of an amiodarone bolus in patients undergoing CABG surgery did not reduce the incidence of POAF. Future studies should focus on specific patient subgroups demonstrating a higher incidence of POAF, such as patients' history of hypertension or diabetes, to determine whether these populations may derive greater clinical benefit from postoperative amiodarone bolus therapy.

Cambers, Erin

The Influence of Glycemic Variability on Prognosis in Tenecteplase - Treated Acute Ischemic Stroke Patients

Chambers, Erin; Jones, Kerri; Kimmons, Lauren; Mattox, Nicole
Methodist University Hospital; Memphis, TN

Background and Purpose

Glycemic variability remains poorly understood in the setting of thrombolytic therapy, particularly with tenecteplase, as most prior studies have focused on alteplase. Emerging evidence suggests that fluctuations in blood glucose levels may influence stroke outcomes, prompting investigation into whether glycemic instability affects recovery after tenecteplase administration. This study evaluated the relationship between glycemic variability and clinical outcomes in patients with acute ischemic stroke (AIS) treated with tenecteplase.

Methodology

This retrospective observational study included adults admitted to Methodist Le Bonheur Healthcare adult hospitals who received tenecteplase for AIS between October 5, 2024 and October 5, 2025. Patients were stratified using the J-index, with values <23.6 categorized as normal and ≥ 23.6 as abnormal. Routine AIS order sets ensured a minimum of three glucose measurements. The primary outcome was functional status at discharge measured by the modified Rankin Scale (mRS). Secondary outcomes included changes in NIHSS and mRS, length of stay, mortality, discharge disposition, and weight-based insulin requirements.

Results

A total of 203 patients were included (81 abnormal and 122 normal). Baseline characteristics were similar between groups, including age (63 vs 64), BMI (28.9 vs 30.3), and blood pressure. Stroke severity was also comparable at presentation (NIHSS 5 vs 7). However, type two diabetes (55% vs 14.8%) and prior TIA (27.2% vs 15.6%) were more common in the high-variability group. Mortality did not differ significantly. Patients with higher glycemic variability demonstrated markedly increased dysglycemia, including elevated initial glucose (154 vs 112 mg/dL), higher A1c values (6.8% vs 5.7%), and higher estimated average glucose. These patients required markedly more insulin during hospitalization.

Clinically, higher glycemic variability was associated with worse short-term neurological outcomes, with higher NIHSS (3 vs 1) and worse functional status at discharge (mRS 4 vs 2) (p=0.026). Although 90-day mRS did not differ significantly, the high-variability group had longer hospital stays (4.776 vs 4.326 days), indicating greater clinical complexity.

Conclusions

Glycemic variability appears to influence early in Tenecteplase stroke patients, highlighting the need for future prospective studies to evaluate whether targeted glycemic management may improve outcomes in this population.

Chen, Yun-Ching

Ferrlecit vs Venofer Effectiveness in a Rural Health System (FeVER): A Retrospective Evaluation of Hemoglobin Response and Hospital Length of Stay

Chen, Yun-Ching; Smith, Grant; Fitts, Austin
North Mississippi Medical Center

Background and Purpose

Absolute iron deficiency anemia (absIDA) in hospitalized adult patients is frequently managed with intravenous (IV) iron when oral formulations are ineffective or intolerable. At our institution, iron sucrose (IS) and sodium ferric gluconate (SFG) are routinely used. The goal of this study is to determine how patients respond to each iron product to guide clinical decision making.

Methods

A single center, retrospective chart review of adult patients who received iron sucrose (IS) or sodium ferric gluconate (SFG) during hospitalization from July 2024 to July 2025 was conducted. Patients were excluded if they had chronic kidney disease, received epoetin alfa during admission, were pregnant, or were actively receiving chemotherapy, or blood transfusions. The primary outcome was to evaluate response rates of patients determined by a change in hemoglobin before and after iron infusion. The secondary outcome was to compare the length of stay after iron infusion between response groups.

Results

Our analysis included 75 patients with absIDA (TSAT<20% & Ferritin <100 ng/mL). We observed a significantly improved Hgb response rate with IS compared with SFG, both for a Hgb increase of 0.5 g/dL (67% vs 33%, p=0.018) and Hgb increase of 1 g/dL (52% vs 15%, p=0.002). Patients whose Hgb improved by at least 1 g/dL were associated with a significantly shorter length of stay compared with non-responders (4.1 days vs 6.6 days, p=0.00017).

Conclusions

In hospitalized adult patients with absolute iron deficiency anemia, iron sucrose produced consistently higher hemoglobin response rates pre and post iron infusion compared with sodium ferric gluconate. Furthermore, achieving a hemoglobin improvement equal to or less than 1 g/dL was associated with a significantly shorter time to discharge. These findings support the preferential use of iron sucrose in absIDA.

Chester, Taylor

Impact of GLP-1 Receptor Agonist Use on Patient Satisfaction in Type 2 Diabetes Treatment

Chester, Taylor; Abington, Symone; Barber, Katie; Davis, Courtney
University of Mississippi School of Pharmacy, Jackson, MS

Background and Purpose

Type 2 diabetes mellitus is a highly prevalent chronic condition associated with significant morbidity and mortality. Glucagon-like peptide-1 (GLP-1) receptor agonists have become an important component of diabetes management due to their ability to improve glycemic control, promote weight loss, and provide cardiometabolic benefits. While the clinical efficacy of GLP-1 therapies has been well established in randomized trials, less is known about patient satisfaction with these therapies in real-world ambulatory care settings. This study aimed to compare treatment satisfaction between patients receiving GLP-1/GLP-1-GIP based regimens and those receiving non-GLP-1 diabetes therapies in an ambulatory care clinic.

Methods

This prospective, observational, survey-based study was conducted at an outpatient diabetes clinic in Flowood, Mississippi. Adults aged 18 years or older with a diagnosis of type 2 diabetes mellitus who had been on a stable diabetes regimen for at least four weeks were eligible to participate. Patients with type 1 diabetes or prediabetes were excluded. Participants completed the validated Diabetes Treatment Satisfaction Questionnaire (DTSQs), an 8-item survey measuring treatment satisfaction. Participants were categorized into two groups: those receiving a GLP-1 or GLP-1/GIP–containing therapy and those receiving non-GLP-1 therapy. The Mann-Whitney U test was used to compare satisfaction scores between groups.

Results

Thirty surveys were included in the final analysis. Of these, 22 patients (73.3%) were receiving a GLP-1 receptor agonist or GLP-1/GIP containing regimen and 8 patients (26.7%) were receiving non-GLP-1 therapy. Among incretin-based therapies, semaglutide and tirzepatide were the most frequently used medications. Treatment satisfaction scores were high in both groups. The median DTSQs score was 34.5 in the GLP-1/GLP-1-GIP group and 35.5 in the non-GLP-1 group. Statistical analysis demonstrated no significant difference in treatment satisfaction between groups ($p = 0.5287$).

Conclusion

Patients with type 2 diabetes reported high levels of treatment satisfaction regardless of whether their regimen included a GLP-1 receptor agonist. Although GLP-1 therapies provide important clinical benefits, this study did not demonstrate a significant difference in patient-reported satisfaction compared with non-GLP-1 regimens. These findings highlight the importance of individualized, patient-centered diabetes management and suggest that factors beyond medication class may influence treatment satisfaction.

Chikersal, Sonali

Impact of Technology-Integrated Primary Engineering Controls on Sterile Compounding Safety and Efficiency

Chikersal, Sonali, Brasher, Cindy, Pyun, Rachel, Smith, Kevin, Harris, Rachel, Bernhardt, Brooke, Aguero, David
St. Jude Children's Research Hospital, Memphis TN

Background/Purpose

Sterile compounding is a high-risk process, and intravenous (IV) compounding errors are among the most likely pharmacy errors to cause patient harm. Innovations in sterile compounding, including implementation of IV compounding workflow management systems and IV robotics, have been shown to increase IV room efficiency and safety while potentially decreasing costs. Newer systems integrate IV workflow hardware and software into a single primary engineering control. The objective of this study is to evaluate the impact of introducing a technology-integrated primary engineering control (TI-PEC), such as the Smarthood™, on sterile compounding workflow efficiency and aseptic technique compliance.

Methods

This pre-post implementation evaluation of a TI-PEC was performed at a pediatric hospital from August 1, 2025, to March 4, 2026. Non-hazardous compounded sterile preparations (CSPs) prepared in central pharmacy were identified using electronic health record (EHR) data and compared before and after TI-PEC implementation. Aseptic lapses related to glove sterilization were assessed through indirect observation of technicians during compounding. The primary endpoint was the number of observed aseptic lapses. Secondary endpoints included CSP preparation time and the frequency of preparation rejections or revisions related to camera quality. Continuous variables were analyzed using the Mann-Whitney U test.

Results

A total of 400 aseptic-technique observations (200 pre-implementation and 200 post-implementation) and 29,185 turnaround-time (TAT) observations (21,617 pre-implementation and 7,568 post-implementation) were analyzed. Implementation of the TI-PEC was associated with a significant reduction in glove sterilization related aseptic lapses, with the mean number of aseptic lapses per observation decreasing from 3.16 to 0.89 ($p < .001$). Mean TAT per CSP increased from 181.05 to 189.75 seconds after implementation ($p < .001$). Analysis of preparation rejections or revisions related to camera quality is ongoing and will be added once finalized.

Conclusion

Implementation of TI-PEC was associated with improved compliance with aseptic technique, demonstrated by a significant reduction in aseptic lapses related to glove sterilization. Although TAT differed significantly between groups, the magnitude of change was not operationally meaningful. These findings suggest that implementation of a TI-PEC improves aseptic technique without negatively affecting pharmacy workflow operations.

Cianci, Courtney

Safety of Dapagliflozin in Critically Ill Patients with Heart Failure

Hana Davis[1] Chelsea Mitchell[1] and Sterling Torian[2]
[1]TriStar Centennial Medical Center, Nashville, TN;
[2]Methodist Le Bonheur Healthcare, Memphis, TN

Background and Purpose:

Sodium-glucose co-transporter 2 inhibitors (SGLT-2i) are a pillar of guideline-directed medical therapy (GDMT) for heart failure, proven to reduce hospitalization and mortality. However, the optimal timing for initiating or continuing therapy in the acute care setting is unknown, and concerns remain regarding complications and adverse effects.

Euglycemic diabetic ketoacidosis (eDKA) is a complication that is triggered by factors such as infection, dehydration, or acute illness. It is characterized by metabolic acidosis, ketosis, and normal or mildly elevated blood glucose levels. This atypical presentation can delay diagnosis and treatment, and increase the risk of morbidity.

The frequency of eDKA among critically ill patients on SGLT-2i in the cardiac intensive care unit (CICU) is not well defined. This study aims to quantify the incidence of eDKA and provide safety data on adverse effects to help guide clinical decision-making for SGLT-2i use during critical illness.

Methods:

Single-center, retrospective observational study between April 2021 and August 2025. A pharmacy surveillance platform extracted administration records of dapagliflozin 10 mg. Patients were included if $\geq$ 18 years old and admitted to the CICU. Patients were excluded if pregnant or prescribed dapagliflozin for non-heart-failure indications. The primary outcome was eDKA incidence during CICU stay or within 10 days of discontinuation. Secondary outcomes included mild and moderate ketosis, hypoglycemia, and continuation rates of dapagliflozin at CICU and hospital discharge.

Results:

Of 422 patients screened, 235 were eligible for inclusion. The median (IQR) age was 63 (53–72) years. At baseline, 107 patients (45.5%) had type 2 diabetes, 51 (21.7%) had chronic kidney disease, and 110 (46.8%) were in cardiogenic shock. Euglycemic DKA occurred in two (0.9%) patients. Ketosis could not be assessed for all patients; however, one case of mild and two cases of moderate ketosis were identified. Hypoglycemia was noted in 10 (4.3%) patients. Upon CICU discharge, 198 patients (84.3%) continued dapagliflozin, 130 (55.3%) of whom were discharged home on the medication.

Conclusions:
This study demonstrates that eDKA incidence is low when dapagliflozin is administered for heart failure in CICU patients. Further studies are needed to confirm these findings and the safety of administration of dapagliflozin in the CICU.

Claas, Caroline

Neutrophil-Lymphocyte Ratio and its Usefulness in Identifying Sepsis Following Burn Injury

Claas, Caroline[1]; Hassouba, Mahmoud[2]; Hill, David[1]
[1]Regional One Health, Department of Pharmacy, Memphis, TN
[2]University of Tennessee Health Science Center, Department of Plastic Surgery, Memphis, TN

Background and Purpose

Sepsis is the number one cause of mortality in patients who survive the initial 72 hours following burn injury. During the Surviving Sepsis Campaign After Burn Injury summit, experts could not reach consensus on which triggers were most useful to aid diagnosis, requesting more research on this objective. Trending a neutrophil-lymphocyte ratio (NLR) is simple, affordable, and may be a useful biomarker for infection. NLR is negatively associated with survival, but its utility as a marker for infection after burn injury is yet explored. The primary objective of this study is to determine if NLR can be used to identify sepsis in burn patients.

Methods

This single-center, retrospective study included adult patients admitted to the burn center between December 1, 2023 and November 30, 2024. Patients were excluded if they had an autoimmune disorder or were immunosuppressed, pregnant, incarcerated, not expected to survive 7 days, or had no neutrophil/lymphocyte count. Patients were classified into three groups: negative control; negative culture, positive sick; and positive culture, positive sick. The inclusion timeframe was considered according to sample size determination. Data was collected, compared, and reported according to type and distribution. Generalized linear mixed modelling was utilized to test change in NLR between and within groups over time using repeated measures while controlling for clinically meaningful covariates. The final NLR model included baseline NLR, age, steroid use, operation, and *Pseudomonas spp.* as covariates.

Results

The final sample included 1600 observations from 238 patients. There were significant differences in demographics, injury characteristics, and baseline NLR. NLR was 4-fold higher for each sick group compared to control ($p<0.0001$), and not different between sick groups ($p=0.6672$). In the positive-sick group, NLR was 18 times higher on the day of positive culture compared to 12 days prior (95% CI 6.84, 29.7; $p=0.0018$). Conversely, NLR down trended from admission to hospital day 7 in controls.

Conclusions

NLR is a simple, useful biomarker for infection in burn patients. NLR rise began far earlier than onset of clinical suspicion of sepsis. Further studies are warranted to investigate the extent and timing of NLR rise for predicting sepsis in burn patients.

Clackler, Raeleigh

Impact of a 72-Hour Antimicrobial Reassessment Alert for Inpatients with Urinary Tract Infection

Clackler, Raeleigh; Arnold, Jon; Huggins, Vikki; Skrmetti, Chelsea
Memorial Hospital at Gulfport, Gulfport, Mississippi

Background and Purpose

Prolonged antimicrobial therapy increases the risk of resistance, adverse events, and healthcare costs. Timely reassessment is essential to ensure appropriate antimicrobial use. This study evaluated whether implementation of an electronic health record (EHR)-based 72-hour antimicrobial reassessment alert for inpatients with urinary tract infections (UTIs) improves antimicrobial stewardship outcomes, including therapy optimization and utilization.

Methods

This was a pre-post quasi-experimental study with historical controls. Adult inpatients (≥18 years) with an ICD-10 diagnosis of uncomplicated or complicated UTI and a documented urine culture were included. Patients were excluded if they had concurrent infections, pregnancy, outpatient status, or antimicrobial discontinuation prior to 72 hours. The pre-intervention group included patients from July 1, 2025 to September 30, 2025, and the post-intervention group included patients from November 1, 2025 to January 31, 2026. At 72 hours after antimicrobial initiation, an alert prompted pharmacists to reassess therapy and recommend discontinuation, de-escalation, or optimization. The primary endpoint was the proportion of patients with antimicrobial modification following pharmacist recommendation. Secondary endpoints included intervention types, IV-to-PO conversion rates, and antimicrobial days of therapy (DOT) per 1,000 patient-days.

Results

Implementation of the alert improved antimicrobial stewardship practices. There was an approximate 46% reduction in UTI cases meeting diagnostic criteria indicating improved diagnostic accuracy. Pharmacist interventions resulted in therapy modification in approximately one-third of cases, including discontinuation, de-escalation, optimization, and IV-to-PO conversion. Although overall DOT per 1,000 patient-days did not decrease, reductions in unnecessary therapy and broad-spectrum antimicrobial use were observed, improving cost-effectiveness.

Conclusions

The pharmacist-driven 72-hour antimicrobial reassessment alert improved the appropriateness of antimicrobial prescribing for UTIs. This intervention supported targeted therapy, reduced unnecessary antimicrobial use, and enhanced interdisciplinary collaboration. These findings highlight the value of structured stewardship tools in optimizing inpatient antimicrobial utilization.

Cole, Shelby

Who Nose? Evaluating the Utility and Reliability of MRSA Nasal Swab Screening at a Rural Community Hospital

Shelby Cole[1]; Teri Clark[1]; Natalie Montgomery[1,2]
1: Baptist Memorial Hospital – North Mississippi, Oxford, MS; 2: University of Mississippi School of Pharmacy, University, MS

Background and Purpose

Empiric vancomycin is commonly initiated in the emergency department for patients with presumed sepsis and frequently continued into inpatient care, sometimes beyond what is necessary for the source of infection. Methicillin-resistant Staphylococcus aureus (MRSA) nasal swab screening may provide a stewardship opportunity to optimize antibiotic use through earlier de-escalation. This study aims to evaluate the reliability of MRSA nasal swab screening in predicting culture-confirmed MRSA infections and to determine in which infection sites the test offers the greatest clinical utility.

Methods

This is a retrospective observational study utilizing the Electronic Health Record (EHR) at Baptist Memorial Hospital-North Mississippi (BMH-NM). Patients admitted between January 1 and June 30, 2025, with active MRSA nasal probe orders or positive MRSA cultures will be identified. This study will evaluate the screening patterns, screening results, culture results and antibiotic prescribing patterns. Nasal swab results will be compared to culture data, including blood, wound, and respiratory specimens, to assess concordance. Antibiotic prescribing patterns, including time to appropriate therapy, de-escalation, and treatment duration, will be evaluated between patients who received MRSA screening.

Results

Results are pending and will be described.

Conclusion

Conclusion is pending and will be described.

Comberrel, Samantha

Efficiency and Safety of Intravenous Push Levetiracetam Compared with Intravenous Piggyback in Adults with Status Epilepticus

Comberrel, Samantha; Singh, Carissa; Mays, Whitney
University of Mississippi Medical Center, Jackson, MS

Background and Purpose

Levetiracetam is an antiepileptic medication commonly used for status epilepticus, given its minimal drug interactions, relatively mild side effect profile, and availability in intravenous (IV) formulations. However, preparation and delivery of IV piggyback levetiracetam can lead to delays in treatment in time sensitive situations such as status epilepticus, a neurological emergency. The purpose of this study is to evaluate the efficiency and safety of IV push administration compared to IV piggyback, focusing on time to administration and safety profile.

Methods

This was a single center, retrospective, cohort study comparing patients who received IV piggyback versus IV push levetiracetam. Patients at the University of Mississippi Medical Center who received one-time loading dose of levetiracetam IV piggyback between 08/01/2021 - 01/31/2024 or levetiracetam IV push between 02/15/2024 - 07/31/2025 and a diagnosis of status epilepticus were evaluated. The primary endpoint was to compare the time to administration of IV push and IV piggyback levetiracetam by assessing the time from physician order entry to time of administration. Secondary endpoints were rates of hypotension and bradycardia within 2 hours of levetiracetam administration and the need for a rescue agent (IM/IV benzodiazepine).

Results

A total of 100 patients were included, 50 patients in the levetiracetam IV push group and 50 patients in the levetiracetam IV piggyback group. The primary outcome showed a median of 20 minutes (IQR 11-34) from order entry time to administration in the levetiracetam IV push group, as compared to 37 minutes (IQR 23-59) in the levetiracetam IV piggyback group (p=0.002). There were no differences in secondary outcomes.

Conclusions

In this single center, retrospective, cohort study, the use of IV push levetiracetam did significantly reduce the time from order entry to administration as compared to IV piggyback levetiracetam.

Conley, Nya

Impact of Pharmacist on Maternal Health Outcomes: A Literature Review

Conley, Nya[1,2], Geminn, Wesley[2], Hurst, Erica[2], Cernasev, Alina[1]
(1)The University of Tennessee Health Science Center (2) Tennessee Department of Mental Health and Substance Abuse Services

Background and Purpose

Maternal health outcomes remain a significant public health concern in the United States, with ongoing complications and mortality related to pregnancy and childbirth. Gaps in access, awareness, and medication adherence continue to negatively impact outcomes. Pharmacists, as highly accessible healthcare providers, are well-positioned to address these challenges through medication management, patient education, and preventive care. This literature review aimed to evaluate the impact of pharmacists on maternal health outcomes

Methods

A literature review was conducted in March 2026 using Ovid and PubMed to identify studies evaluating pharmacist involvement in maternal healthcare. MeSH terms included “pharmacists,” “pharmaceutical services,” “maternal health,” “intervention,” and “treatment outcomes,” along with keywords such as maternal outcomes. Studies were limited to those conducted in the United States, and randomized controlled trials were excluded. Out of eighteen identified studies, seven studies met the inclusion criteria and were included for analysis.

Results

A diverse set of studies were reviewed, including practice implementation, program evaluation, qualitative, cross-sectional, and pilot studies. In all seven studies analyzed, pharmacist involvement was associated with improved access to care and maternal health outcomes, particularly in medication management, chronic disease control, and preventive care. One study highlighted that pharmacists' involvement in postpartum hypertension management improved medication management and access to care, while another pharmacy-based breastfeeding program evaluation highlighted enhanced access to lactation services and continuity of care, supporting improved maternal outcomes.
Pharmacists also contributed to medication safety and patient education during pregnancy and postpartum; however, studies identified gaps in knowledge and training, particularly in lactation and prenatal medication management. Barriers such as time constraints, staffing limitations, and variability in service provision, especially in screening and referral services, were also reported. Additionally, pharmacists were identified as key providers in addressing maternal health conditions such as opioid use disorder through screening, counseling, and care coordination

Conclusions

This literature review demonstrates that pharmacists can improve maternal health outcomes by enhancing medication management, access to care, and patient education.

Conrad, Rachel

Impact of pharmacist-managed culture review and patient call back on antimicrobial therapy optimization in a community hospital emergency department

Rachel Conrad, PharmD; Mason Schroeder, PharmD; Kristyn McKnight, BCCCP, PharmD
Common Spirit Health Saint Vincent Infirmary

Background and Purpose

St. Vincent Infirmary is a tertiary care community hospital with decentralized clinical pharmacists covering a variety of units, including the emergency department (ED). The goal of implementing an ED pharmacist driven process in addition to nursing staff for culture review and callbacks is to more effectively fill any gaps in patient follow-up and documentation occurring with the nursing team alone. The objective of this study is to assess the impact of an ED pharmacist on patient culture review and optimization of targeted antimicrobial therapy following discharge home from the ED.

Methods

For this retrospective evaluation, 125 electronic medical records from each three-month period pre-and-post implementation of the pharmacist-driven process with a washout period of 2 months were examined. Patients' charts were evaluated for the rate of antimicrobial regimen modification post culture review, including any modification in dose, frequency, duration, or specific antimicrobial therapy as well as percentage of patients receiving optimal therapy post culture call-back. In addition, the percentage of patients receiving optimal therapy post culture callback using guideline-directed therapy was assessed. Patients included in this study were adults 18 years or older discharged home from the ED with a urine/blood culture and/or STI screening that yielded a positive result. No patients were excluded from retrospective chart review for this study.

Results

When assessing 250 cultures, a greater rate in the post implementation group had appropriate therapy compared to the pre-implementation group (82.5% vs 68.8%, $p = 0.012$). In addition, the rate of documentation of culture review (67% vs 6.4%, $p < 0.05$), rate of interventions made (19% vs 4.8%, $p < 0.05$), and interventions made when necessary (86.2% vs 16.2%, $p < 0.05$) showed a significant difference in the post-implementation group. There was no statistically significant difference in time to therapy change between the groups.

Conclusion

Pharmacist involvement in culture review and callback following discharge improved appropriate antimicrobial therapy and number of interventions made when necessary.

Cooper, Ellaine

Impact of Depression on Glycemic Variability in Veterans with Type 2 Diabetes

Cooper, Ellaine and Norris, Meghan
G.V. (Sonny) Montgomery VA Medical Center, Jackson, MS

Background and Purpose

According to the CDC, in 2019, depression was more prevalent among adults in the US with diabetes than those without diabetes, indicating an association between the two conditions. While numerous studies have explored the complex relationship between hemoglobin A1c (HgbA1c) and depression, few have explored this using continuous glucose monitoring (CGM) metrics. Unlike traditional metrics, CGMs capture glycemic variability (GV), reflecting short-term glucose excursions. This study aimed to evaluate GV in Veterans with diabetes, both with and without depression, and the potential influences between these two conditions.

Methods

This retrospective cohort study compared Veterans with type 2 diabetes mellitus (T2DM) to Veterans with both T2DM and depression between July 1, 2020, to July 31, 2025, at a single Veterans Affairs Medical Center. Five hundred Veterans were randomly selected for evaluation; those who met the inclusion criteria of T2DM diagnosis, insulin use, and CGM utilization, active for $\geq$ 90% within a 90-day period, were selected for the study. Primary objectives assessed Veterans who maintained time in range (TIR) $\geq$70%. Secondary objectives evaluated HgbA1c, time spent below range (TBR), and depression severity score from Patient Health Questionnaire (PHQ-9).

Results

A total of 81 Veterans were included in the study. Of these, 31 Veterans had a diagnosis of both T2DM and depression while 50 Veterans had a diagnosis of T2DM without depression. Fifty-eight percent of Veterans with T2DM and depression maintained TIR $\geq$ 70% compared to 56% of the Veterans with T2DM alone ($p = 0.86$); there was no significant difference in TIR between the two groups ($p = 0.64$). Ninety percent of Veterans with T2DM and depression and 87% of Veterans with T2DM met GV target (using coefficient of variation <36%), $p = 0.69$. Multivariable regression indicated non-significant effect between A1C, TIR, and PHQ (p-value >0.05). Population mean HgbA1c 7.9%, average TBR <1%, and average PHQ-9 score 8.79 $\pm$ 6.82.

Conclusion

Presence of depression did not affect GV in Veterans with diabetes; there was no clinically significant association in CGM targets between both groups. Studies with larger population are warranted to explore further associations between depression and glycemic control.

Cross-Penn, Graylon

Evaluation of Pharmacist-Led Interventions using a Clinical Surveillance Tool (CST) to Identify and Treat Albuminuria in Patients with Type 2 Diabetes

Cross-Penn, Graylon, Parganas, Chris, Armstrong, Drew
Regional One Health, Department of Pharmacy, Memphis, TN

Background and Purpose

Type 2 diabetes (T2DM) is known to cause numerous complications, including albuminuria that can lead to chronic kidney disease (CKD). Guidelines recommend early detection via collection of a urine albumin-to-creatinine ratio (UACR) to assess for the presence of albuminuria (UACR > 30 mg/g), while foundational treatment for reducing albuminuria includes ACE inhibitors or ARBs, SGLT2 inhibitors, GLP-1 receptor agonists, and finerenone. A Clinical Surveillance Tool (CST) is a software that reviews electronic medical records to detect specific medical data in real-time. CSTs help with automating chart reviews and identifying patients that can benefit from interventions. The primary objective of this study is to evaluate pharmacist-led interventions, utilizing a CST, to improve CKD screening and appropriate treatment in patients with T2DM.

Methods

This prospective single-center study took place in the Internal Medicine clinic at Regional One Health between 12/1/2025 through 1/31/2026. Adult patients aged 18-80 were identified via the CST based on a diagnosis of T2DM and presence of albuminuria as well as T2DM without a collected UACR. Clinical pharmacists made recommendations to collect UACRs if missing and to prescribe renal-protective therapy as appropriate. Electronic medical records were used to collect patient specific demographics, laboratory data, and medications.

Results

Thirty-three patients were identified using the CST during the study period. The average patient was a 55-year-old black female. The majority of patients, 70%, did not have a UACR screened in the last year. Of the patients without a UACR, 83% were obtained at their clinic visit.

Additional results will be presented.

Conclusion

Utilization of a CST led to an increase in screening for albuminuria for patients with T2DM.

Crow, Mary-Wyatt P.

The Business of Healthcare: Evaluating the Economic Impact of Independent Community Pharmacy Closures in Mississippi

Crow, Mary-Wyatt P.; Rayborn, Lindsey; Winburn, Jonathan*; Schutt, Kenzie; Barber, Katie; Holmes, Erin; Pate, Adam
University of Mississippi School of Pharmacy, University of Mississippi Department of Political Science* located in University, Mississippi

Background and Purpose

Despite their critical role in healthcare access, many community pharmacies are struggling to remain open. In Mississippi, 38 of 65 surveyed independent pharmacies described their business health as average to very poor, and 57 community pharmacy closures occurred between 2021 and 2024. Beyond providing access to medications and patient education, community pharmacies create jobs, generate revenue, and support small business networks. This study aimed to quantify the economic impact of independent community pharmacy closures.

Methods

This study employed a cross-sectional, survey-based design to collect financial and operational data from independent community pharmacies in Mississippi. Inclusion criteria for survey participants include being 18 years or older and representative of an independent community pharmacy in Mississippi. Pharmacies responded voluntarily, and responses were not anonymous to eliminate duplication.

Data were analyzed using Industry Contribution Analysis (ICA), which estimates the value of an industry in a region at their current levels of production within the Impact Analysis for Planning (IMPLAN) modeling system. Because the contribution to the overall pharmacy industry outputs from independent pharmacies alone is unknown, low- and high-end contribution assumptions of 35% and 50% were applied to generate conservative economic impact ranges and ensure no overestimation.

Results

11 survey respondents answered all 20 questions of the survey. Of the 11, one duplicate was removed. The remaining 10 responses were included in data analysis, representing approximately 3% of independent pharmacies throughout Mississippi.

These 10 independent pharmacies together employed 286 individuals, generated over $50 million of output, and contributed approximately $8.4 million in local, state, and federal tax revenue. The IMPLAN Model estimates that throughout Mississippi, independent community pharmacies employ between 5,000 and 7,000 individuals, generate $887 million to $1.3 billion in total economic output, and contribute $147.4 million to $210.5 million in local, state, and federal tax revenue.

Conclusions

Independent community pharmacies are reliable, accessible, and integral providers of patient-centered healthcare. This study aimed to quantify how independent community pharmacy closures affect local economies to understand the broader implications pharmacy closures have on community health and economic stability, as well as the reduction in medication access and availability of healthcare services.

Davis, Sarah

Warfarin Management During Plasmapheresis for Desensitization in Patients with a Left Ventricular Assist Device

Davis, Sarah[1]; Shultz, Mary Katherine[1]; Berardi, Sarah[1]
[1]Vanderbilt University Hospital, Nashville, TN

Background and Purpose

Left ventricular assist devices (LVADs) serve as a bridge to cardiac transplantation for many advanced heart failure patients; however, they also increase the risk of hemocompatibility-related adverse events (HRAEs) such as bleeding, thrombotic events, and development of human leukocyte antigen (HLA) antibodies. Unless contraindicated, patients with LVADs are anticoagulated with warfarin to decrease thrombotic risk. To reduce sensitization levels before transplant, plasmapheresis (PLEX) can mechanically remove HLA antibodies; however, PLEX also removes endogenous clotting factors, further increasing bleeding risk and complicating anticoagulation management. The goal of this study is to inform best practices for safe and effective warfarin dosing during PLEX.

Methods

This study was a single-center, retrospective observational analysis of adult LVAD patients ($\geq$18 years) who received warfarin and PLEX at Vanderbilt University Hospital (VUH) between December 1, 2017, and February 28, 2026. Patients were excluded if they were not on warfarin at the time of PLEX, did not have an LVAD at the time of PLEX, or lacked outpatient follow-up with the VUH anticoagulation clinic. The primary outcome was incidence of clinically significant bleeding during PLEX as defined by International Society of Thrombosis and Hemostasis (ISTH) criteria. Secondary outcomes included incidence of bridging within seven days post-PLEX, INR excursions (> 4), and percentage change in 7-day cumulative warfarin dose relative to home regimen.

Results

Results will be described at the time of the presentation

Conclusion

Conclusions are pending the results of data analysis and will be described at the time of the presentation.

Dees, Whitney

Inpatient Management of Hepatic Encephalopathy: Adherence to Guidelines and Predictors of Readmission

Dees, Whitney; Walker, Nicole; Shoop, David; Bostick, Anna; Higgins, Russell
Methodist LeBonheur Healthcare, Germantown Hospital

Background and Purpose

Hepatic encephalopathy (HE) is a serious, life-threatening complication of cirrhosis with substantial morbidity and high readmission rates. Current American Association for the Study of Liver Diseases (AASLD) guidelines recommend lactulose as first-line therapy, with rifaximin added for recurrent episodes or inadequate response. However, real-world treatment patterns and readmission predictors remain poorly characterized due to insufficient studies. This study aims to describe inpatient HE treatment patterns at Methodist LeBonheur Healthcare (MLH) compared to guideline recommendations and to identify predictors of potential readmissions.

Methods

This IRB-approved retrospective cohort study included adult patients diagnosed with HE across MLH adult hospitals from November 2024 to August 2025. Patients were identified from electronic health records with a HE diagnosis and received lactulose and/or rifaximin. Data collected included demographics, laboratory values, cirrhotic complications, treatment regimens, and readmissions. Descriptive statistics were used to analyze treatment patterns, readmission rates, and the correlation between clinical variables and outcomes.

Results

Sixty-seven patients were included (mean age 58.5 ± 9.7 years, 59.7% male). Lactulose monotherapy was initiated in 59.1%, rifaximin monotherapy in 4.5%, and dual therapy with rifaximin in 36.4%. At discharge, 61.2% had dual therapy, a 68% relative increase from preadmission dual therapy rates. Our 90-day readmission rate is 38.8%, comparable to the 35.9% reported for similar higher-acuity patients, while all cirrhotic patients have a rate 21.2%. Dual therapy discharges had higher readmission rates (48.8%) versus lactulose alone (29.4%), reflecting greater disease severity versus treatment inadequacy. Readmitted patients had, on average, 1.5 more cirrhotic complications and a 9-point higher MELD score. Initial ammonia levels did not correlate with length of stay, and insurance status did not impact readmission rates.

Conclusions

Hepatic encephalopathy treatment at MLH generally aligns with guidelines, with lactulose first-line. The high rate of dual therapy at discharge (61.2%) likely reflects appropriate escalation in severe or recurrent disease. Higher readmission rates in dual therapy appear to be confounded by disease acuity. The lack of correlation between ammonia levels and length of stay supports guideline recommendations against using ammonia to inform clinical decisions. Future efforts should focus on standardizing escalation criteria and improving post-discharge care coordination.

Dollinger, Arianna

Assessment of Time to First Therapeutic aPTT in Obese Patients Initiated on Standard Heparin Infusion Protocol

Dollinger, Arianna; Krushinski, Kelsey; Crawford, Allie; Mitchell, Kristie
Baptist Memorial Hospital – Memphis; Memphis, TN

Background/Purpose

Unfractionated heparin (UFH) is an anticoagulant commonly used for treatment of venous thromboembolism (VTE). Obesity (BMI ≥ 30) is a well-established risk factor for VTE and affects pharmacokinetics of anticoagulants through many mechanisms including changes in subcutaneous fat distribution. Heparin dosing is complex due to the drug's low volume of distribution, which results in increased dosing requirements in patients with obesity. This study aimed to evaluate the difference in time to therapeutic anticoagulation in obese versus non-obese patients with VTE.

Methods

This single-center, retrospective chart review compared time to first therapeutic activated partial thromboplastin time (aPTT) in obese versus non-obese patients with VTE initiated on a standard-protocol heparin infusion for ≥ 24 hours between January 1, 2024 – June 30, 2025. Patients were excluded if they received low-dose heparin infusions, anticoagulation prior to admission, were pregnant, and if the aPTT was not collected within 4-9 hours after initiation. Secondary outcomes included the incidence of patients therapeutic at 12 and 24 hours, incidences of bleeding, hospital length of stay, duration of the heparin infusion, and number of dose adjustments.

Results

Power was not met due to small sample size; therefore, results are descriptive in nature. Of 167 patients screened, 105 were included. There was no statistically significant difference in the primary outcome (23.8 vs 21.8 hours, p=0.44). Bleeding occurred more commonly in non-obese patients (15% vs 11%, p=0.056), with only one major bleeding event occurring in the non-obese group. Patients frequently failed to achieve therapeutic anticoagulation in both groups (44.7% vs 32.8%). Median length of stay and duration of infusion were numerically different but did not demonstrate a statistical significance. The mean number of boluses and rate adjustments were higher in the obese group, but were not statistically significant (p=0.506).

Conclusions

This study suggests no statistically significant difference in time to first therapeutic aPTT between obese versus non-obese patients. However, these findings highlight the lack of effective anticoagulation with unfractionated heparin. These results suggest that the current standard heparin infusion protocol may be inadequate for achieving therapeutic anticoagulation in a substantial portion of patients, regardless of obesity status.

Dorman, Austin

Impact of a technician-led transitions of care team on Meds-to-Beds participation rates at a community hospital.

Dorman, Austin - Author[1]; Taylor, Prisca – Co-Author[1]
[1]St. Bernards Medical Center

Background and Purpose

Transitions of care represent a time when patients are most vulnerable to lapses in continuities of care. Meds-to-Beds programs place medications in patients' hands before they are discharged, aiming to avoid potential lapses in care for discharging patients. Participation in Meds-to-Beds programs at community hospitals may remain suboptimal due to inefficient workflows, limited pharmacist availability, and inconsistent patient engagement. Expanding the role of pharmacy technicians in transitions of care services may represent a potential solution. In July 2025, a technician-led transitions of care team was created within a community hospital. This study's purpose is to evaluate the impact a technician led transitions of care team has had on the utilization of the Meds-to-Beds program, as well as their impact on readmission rates of eligible patients, and the rates of successful high-cost drug deliveries completed by the program.

Methods

This single-center, retrospective, pre- and post-intervention study included patients admitted to a community hospital who were discharged from dedicated units within the hospital.
The intervention was the establishment of a technician-led transitions of care team. This team screened eligible patients and facilitated their enrollment in the Med-to-Beds program, while helping address cost barriers by assisting with PA completion and patient assistance program applications. The pre-implementation group was comprised of patients discharged between April 1st, 2025 and June 30th, 2025, and the post-implementation group was comprised of patients discharged between August 1st, 2025 and October 31st, 2025. Patients discharging to a long-term care facility, hospice care, or those discharging against medical advice were excluded. The primary outcome will be a comparison of the rates of patient participation in the Meds-to-Beds program before and after implementation of the technician led transitions of care team. Secondary outcomes will include comparisons of rates of readmission at 30 and 60 days after discharge, rates of successful delivery of medications to participants, and rates of successfully filled high-cost medications.

Results

Results will be presented at the Midsouth Pharmacy Residents Conference

Conclusions

Conclusions will be presented at the Midsouth Pharmacy Residents Conference

Drennon, McKenzie

Comparison of Fish Oil Lipid Emulsion (FOLE) Dosing Regimens in Patients with Intestinal Failure-Associated Liver Disease (IFALD)

Drennon, McKenzie[1,2]; Herrera, Oscar[1,2]; Afolabi, Titilola[1,2]; Crill, Cathy[1,2]; Fly, Hunter[1,2]
Le Bonheur Children's Hospital[1] and University of Tennessee Health Science Center[2]

Background and Purpose

Fish oil–based lipid emulsion (FOLE) was approved by the FDA in 2018 for pediatric patients with parenteral nutrition–associated cholestasis, a manifestation of intestinal failure–associated liver disease. Despite widespread use, optimal dosing remains unclear. While the labeled maximum dose is 1 g/kg/day, extrapolation of infusion parameters suggests doses up to 1.8 g/kg/day may be feasible. This study aimed to compare NICU patients receiving 1 g/kg versus 1.5 g/kg of FOLE to evaluate differences in laboratory outcomes, time to IFALD resolution, and impact on weight gain while receiving parenteral nutrition with FOLE.

Methods

This was a single-center retrospective chart review of NICU patients receiving FOLE ≥7 days (2018–2025). Patients received either 1 g/kg/day (historical cohort) or 1.5 g/kg/day (recent cohort). Primary outcomes included peak IFALD laboratory markers and time to resolution; secondary outcomes assessed weight gain in the High Dose cohort. Descriptive statistics summarized data. Categorical variables were analyzed using Fisher's exact test, and continuous variables with t-test or Mann–Whitney U test, as appropriate.

Results

Baseline demographics were similar between dosing groups, with comparable birth weight, gestational age, and a predominance of male patients. However, the High Dose group had more severe IFALD at FOLE initiation, reflected by a higher median direct bilirubin. During FOLE therapy, direct bilirubin levels did not significantly worsen in either group. Peak triglyceride levels were significantly higher in the High Dose cohort. The High Dose group had a significantly shorter duration of FOLE therapy. Although they also demonstrated a shorter time to IFALD resolution, this difference was not statistically significant. All patients in the low-dose group achieved IFALD resolution, whereas three patients in the high-dose group did not (two deaths, one requiring FOLE reinitiation). Weight gain decreased during FOLE therapy compared to PN, though the reduction was smaller than anticipated.

Conclusions

Although not significant, the High Dose FOLE cohort achieved faster resolution of IFALD. This can help clinicians switch back to higher doses of other ILE regimens to promote optimal weight gain. Further studies with more patients are needed to evaluate the true impact of a high dose fish oil regimen in IFALD resolution.

Edmonds-Andrews, Gabrielle

The Impact of Pharmacist-Led Intervention on Tobacco Cessation among Community Pharmacy Adult Patients Prescribed PCSK9 Inhibitor Therapy

Edmonds-Andrews, Gabrielle[1],[2] ; Pack, Raylee[1];Henneman, Amy[2]
Walgreens Pharmacy[1], and Belmont University[2], Nashville, TN

Background and Purpose

Cigarette smoking remains the leading preventable cause of disease, death, and disability in the United States and is a major contributor to cardiovascular disease (CVD), increasing the risk of stroke, myocardial infarction (MI), and coronary heart disease (CHD). Smokers typically exhibit unfavorable lipid profiles, including higher triglycerides, VLDL, and Apo B levels, and lower HDL-C and Apo A-I levels compared to nonsmokers. Smoking cessation significantly reduces these risks, particularly in high-risk patients already receiving advanced lipid-lowering therapies such as PCSK9 inhibitors. Patients prescribed PCSK9 inhibitors often have familial hypercholesterolemia or established cardiovascular disease, making risk reduction critical.
Although a variety of smoking cessation resources exist, including nicotine replacement therapy (NRT), many patients are unaware of or do not utilize them. Community pharmacists are highly accessible healthcare professionals with training in nicotine addiction and have expressed interest in expanding their role in tobacco cessation.
The purpose of this project is to evaluate the effectiveness of pharmacist-led interventions in promoting tobacco cessation among adult community pharmacy patients prescribed PCSK9 inhibitors. Outcomes will be assessed at treatment initiation, reassessments, and follow-up consultations.

Methods

This prospective quality improvement project will be conducted at a community pharmacy with a goal of enrolling 50 patients. Descriptive statistics will be used for analysis.
Patients prescribed PCSK9 inhibitors (evolocumab or alirocumab) will be identified by the resident pharmacist, informed about the study, and invited to participate. After providing consent, patients will undergo an initial tobacco use assessment using the Ask-Advise-Refer (AAR) method. This includes standardized questions about smoking, vaping, or other tobacco use. Patients who use tobacco will be advised to quit and referred to cessation resources such as quit lines and educational materials. Pharmacists may also assist with accessing NRT through prescribers or over-the-counter recommendations.
Participants will receive structured follow-up calls at 2, 4, 8, and 12 weeks. These calls will assess quit status, quit attempts, NRT use, and barriers to cessation using scripted questions. The primary outcome is days since last tobacco use, while secondary outcomes include quit readiness, NRT access, and reported barriers.

Results

Results are not yet available and will be presented later.

Emrich, Caitlyn

Cardiovascular Outcomes with Propofol Compared to Dexmedetomidine in Patients with Heart Failure with Reduced Ejection Fraction

Ponder, Ally; Wells, Lindsey; Hunt, Molly
Lt. Col. Luke Weathers, Jr. VA Medical Center, Memphis, TN

Background/Purpose

Propofol and dexmedetomidine are commonly used sedatives in intubated, critically ill patients. Both agents have known hemodynamic side effects that can be more pronounced in patients with underlying myocardial dysfunction, particularly those with left ventricular ejection fraction (LVEF) ≤ 40%. The purpose of this study is to determine if there is a higher risk of heart failure related cardiovascular events with dexmedetomidine compared to propofol in intubated, critically ill Veterans with heart failure with reduced ejection fraction (HFrEF).

Methods:

This was a retrospective analysis of electronic medical records from patients admitted to Lt. Col. Luke Weathers, Jr. VA Medical Center from January 1, 2018 to February 28, 2026. Adult patients with HFrEF who were intubated in the ICU requiring propofol or dexmedetomidine were enrolled. Patients requiring deep sedation (RASS of -3 to -5) were excluded. The primary outcome was a composite of cardiovascular events: initiation or intensification of inotrope, initiation of new renal replacement therapy, receipt of high dose loop diuretic, cardiac arrest, receipt of mechanical circulatory support, and/or myocardial infarction. Secondary outcomes included the individual components of the primary outcome, incidence of bradycardia, incidence of hypotension, and initiation or intensification of vasopressors. The primary and secondary outcomes were measured from the time of sedative initiation to 24 hours after discontinuation. In the case of crossover between propofol and dexmedetomidine, if the secondary sedative was started less than 24 hours after discontinuation of the primary, data collection was stopped at that time.

Results:

Preliminary results include 40 patients enrolled in the propofol group and 16 patients enrolled in the dexmedetomidine group. Majority of patients enrolled were male (96%) and African American (54%) with a mean age of 71 years. Overall, the average baseline LVEF was 26% and the average APACHEII score was 29. The composite primary outcome was 62.5% (25/40) in the propofol group vs 68.8% (11/16) in the dexmedetomidine group. The incidence of bradycardia and hypotension was 15% (6/40) and 57.5% (23/40) in the propofol group and 0% (0) and 75% (12/16) in the dexmedetomidine group. Data collection is ongoing.

Conclusions:

Pending completion of data collection and analysis

Farmer, Lynesha

Impact of Automated Insulin Delivery on Glycemic Outcomes in Adults with Type 2 Diabetes Mellitus (T2DM) in a Rural Federally Qualified Health Center (FQHC) Setting

Farmer, Lynesha[1]; Underwood, Liz[1] ; Smith, Forrest [2]; Coursey, Rachel[1]
Arcare, Searcy, AR[1]; Harding University College of Pharmacy, Searcy, AR[2]

Background and Purpose

Uncontrolled type 2 diabetes (T2DM) with elevated hemoglobin A1c is associated with increased healthcare utilization and higher risk of complications such as neuropathy, retinopathy, nephropathy, and cardiovascular disease. Previous studies demonstrated that tubeless automated insulin delivery (AID) systems resulted in improvements in glycemic control among adults with T2DM in clinical settings. However, there is limited real-world evidence regarding their effectiveness in rural, underserved populations, particularly in FQHCs, where access to diabetes technology and long-term adherence remain significant challenges. This study aimed to evaluate the effectiveness of AID in resource-limited environments.

Methods

This retrospective cohort study evaluated adults (≥18 years) with type 2 diabetes mellitus receiving insulin therapy who initiated an AID system (Omnipod) between 2024 and 2025 at a rural Federally Qualified Health Center in Arkansas. Patients were referred for insulin pump initiation and received standardized training from a registered dietitian. Ongoing follow-up was conducted by the pharmacy team, chronic care management, and/or diabetes self-management education services. Patients were included if they had documented baseline and 6-month follow-up A1c values. The primary outcome was the change in A1c from baseline to 6 months post-initiation. Secondary outcomes included changes in continuous glucose monitoring metrics, specifically time in range and percent time <70 mg/dL.

Results

A total of 104 patients who initiated Omnipod therapy were identified through an internal report. After applying inclusion criteria, 71 patients with T2DM were included, while 29 patients with type 1 diabetes mellitus and 3 patients with incomplete initiation were excluded. Among patients with available baseline and follow-up A1c values, preliminary results demonstrated a mean A1c reduction of 1.7%.

Conclusions

AID implementation is associated with clinically meaningful A1c reduction in an underserved FQHC population. These results support the effectiveness of a multidisciplinary care model in improving glycemic outcomes. Larger studies are warranted to confirm durability and generalizability.

Felton, Kardarius

A Retrospective Review of the Effect of Early versus Delayed Initiation of Vasopressin on Mortality in ICU Patients with Septic Shock

Felton, Kardarius; Akbik, Muhammad
Baptist Memorial Hospital – Golden Triangle, Columbus, MS

Background and Purpose

Septic shock is defined as persistent hypotension requiring vasopressors to maintain a mean arterial pressure (MAP) ≥65 mmHg and a serum lactate level greater than 2 mmol/L despite adequate fluid resuscitation. Current guidelines recommend norepinephrine as the first-line vasopressor, with vasopressin commonly used as the second-line agent. However, the optimal timing for initiating vasopressin after norepinephrine remains uncertain. The VASST trial compared norepinephrine alone with norepinephrine plus vasopressin and found no significant difference in 28-day mortality overall, although subgroup analyses suggested improved survival in patients with less severe shock receiving lower norepinephrine doses. Other studies have suggested that earlier vasopressin initiation may improve outcomes. For instance, patients receiving vasopressin within six hours had a lower 30-day mortality, more vasopressor-free hours, and faster achievement of target MAP. Norepinephrine increases blood pressure by stimulating alpha-1 adrenergic receptors, causing vasoconstriction and increased systemic vascular resistance, whereas vasopressin acts on V1a receptors on vascular smooth muscles, producing vasoconstriction through a non-adrenergic pathway. This mechanism may reduce catecholamine exposure, which has been associated with adverse effects. This study aims to evaluate the association between the timing of vasopressin initiation and mortality in intensive care unit (ICU) patients with septic shock treated with norepinephrine.

Methods

This study is a retrospective electronic health record review of patients admitted to the intensive care unit at Baptist Memorial Hospital – Golden Triangle between January 1, 2022, and January 1, 2025. The study will examine the timing of vasopressin initiation relative to norepinephrine administration, at 3 hours, 6 hours, and between 6 and 72 hours. The primary outcome is mortality in patients with septic shock receiving vasopressin following norepinephrine therapy. Secondary outcomes include the incidence of acute kidney injury, ICU and hospital length of stay, total duration of vasopressor therapy, new onset arrhythmia, duration of mechanical ventilation, and the occurrence of hypotensive episodes. Data collection will include baseline characteristics along with pertinent continuous and nominal data.

Results

Results will be described at the time of the presentation.

Conclusion

Conclusion will be described at the time of the presentation.

Giri, Ojashwi

Clinician Adherence to Pharmacogenomic Inline Medication Warnings: A Qualitative Analysis

Ojashwi Giri[1], Cyrine E. Haidar [1], Kristine R. Crews [1], Jessica Ray[2], James M. Hoffman[2]
[1]Department of Pharmacy and Pharmaceutical Sciences, St. Jude Children's Research Hospital, Memphis, TN;
[2]Office of Quality and Patient Safety, St. Jude Children's Research Hospital, Memphis, TN

Background

Effective implementation of pharmacogenomics requires integration of clinical decision support (CDS) within electronic health records (EHRs). St. Jude implemented the Epic Genomics Module in 2022, introducing pharmacogenomic inline medication warnings (inline CDS) that provide concise, non-interruptive CDS when drug-gene interactions occur. Despite routine use since Epic go-live, usability and impact on clinician workflow have not been studied. This study evaluated clinician behavior, perceptions, and workflow interactions with pharmacogenomic inline CDS compared with traditional pharmacogenomic interruptive CDS alerts.

Methods

Fifteen clinicians (eight physicians, three clinical pharmacy specialists, and four advanced practice providers (APPs)) from three oncology divisions performed prescribing simulations involving pharmacogenomic inline CDS and interruptive CDS alerts. Semi-structured interviews were conducted to assess satisfaction with current CDS functionality and identify workflow needs. Audio, screen recordings, and field notes were collected, transcribed, and thematically analyzed using a hybrid inductive-deductive approach.

Results

All fifteen clinicians detected and engaged with the pharmacogenomic CDS immediately; engagement was consistent across inline and interruptive CDS alerts. Engagement depth ranged from skimming to reading; several clinicians reported that in routine practice, they would skim the CDS, prioritizing bolded phenotype and recommendation, while seeking associated risk information. Timing and placement of CDS were consistently viewed as appropriate. Clinicians described both inline and interruptive CDS alerts as helpful, emphasizing clarity and visual salience. Comfort and confidence in the CDS were rated high and driven by trust in the pharmacogenomics team's internal development processes. Adherence to pharmacogenomic inline CDS recommendations was 85% (18/21); adherence to pharmacogenomic interruptive CDS recommendations was 100% (15/15). Clinicians reported that embedded actionability of interruptive CDS alerts supported adherence; embedded actionability is a feature currently unavailable within inline CDS. Visual design features that supported clinician adherence included bolded and colored font, which drew attention to elements necessary for decision-making. Physicians and APPs identified consulting a clinical pharmacy specialist as crucial to their workflow.

Conclusions

Our results show that pharmacogenomic inline CDS require clinicians to take additional steps compared to pharmacogenomic interruptive CDS alerts. Based on the study results, a pharmacogenomic CDS redesign is being implemented. Future updates regarding inline CDS actionability have been recommended to Epic Genomics developers.

Golara, Erick

Evaluating the Risks versus Benefits in Fixed Dose and Variable Dose KCentra®

Golara, Erick; Hasford, Erika; Miller, Blair; Summer, Karen
Maury Regional Medical Center, Columbia, Tennessee

Purpose

Four-factor prothrombin complex concentrate (4F-PCC) is indicated for urgent reversal of anticoagulant–associated major bleeding. Fixed dosing provides an opportunity to expedite administration in addition to reducing costs. The purpose of this study is to evaluate patient outcomes and costs associated with fixed dose 4F-PCC versus weight-based dosing for the reversal of anticoagulants.

Methods

This retrospective chart review study was performed on patients admitted between May 1, 2024, to November 1, 2025. Patients who were <18 years of age, transferred to an outside hospital, had 4F-PCC administered at an outside hospital, or required reversal of coagulopathy not caused by anticoagulation were excluded. The primary outcome was time to administration of 4F-PCC. The secondary outcomes compared transfusion requirements, whether hemostasis was achieved within 24 hours, cost savings, hospital length of stay, and in-hospital mortality between fixed and weight-based dosing.

Results

The inclusion criteria was met by 65 patients. The primary outcome of time to administration was 58 minutes in the weight-based dosing compared to 45 minutes in fixed dosing (p=0.06). The secondary outcomes for hemostasis within 24 hours was 69% versus 51% (p=0.47), hospital length of stay of 8.28 days versus 6.18 days (p=0.46), in-hospital mortality of 19% versus 5% (p=0.25), percentage of patients requiring packed red blood cells (PRBC) were 50% versus 53.8% (p=0.81), percentage of patients requiring fresh frozen plasma (FFP) were 12% versus 15% (p=0.73), and percentage of patients requiring vitamin K were 23% versus 15% (p=0.6) in weight-based dosing and fixed dosing, respectively. The cost savings were $4,322.14 per patient after accounting for GPO or 340B pricing depending on whether medication administration was performed in the emergency department.

Conclusion

Based on the sample size of this study, it is evident that more research is warranted to fully evaluate and understand the magnitude of the impact that fixed dosing has on patient outcomes.

Golshir, Andre

Impact of Continuous Versus Intermittent Loop Diuretics for Acute Decompensated Heart Failure on Hospital Length of Stay

Golshir, Andre; Burton, Ginger; Moore, Sarah Beth; Baird, Mallory
Baptist Memorial Hospital – Memphis; Memphis, TN

Background/Purpose:

Loop diuretics are essential for managing acute decompensated heart failure (ADHF), yet the optimal method of administration of continuous infusion versus intermittent bolus dosing remains uncertain. Prior studies have demonstrated mixed outcomes; some showed greater urine output and weight reduction with continuous infusion but no consistent differences in renal function, mortality, or hospital length of stay (LOS). This study aims to assess whether the continuous infusion of loop diuretics reduces hospital LOS compared to intermittent intravenous (IV) bolus dosing in patients with ADHF.

Methods:

This study is a retrospective, single-center chart review of patients admitted to Baptist Memorial Hospital – Memphis for ADHF from January 1, 2022 to January 1, 2025. Patients who were 18 years or older with an ADHF admission and received IV loop diuretics were screened for inclusion. Patients were separated into two groups: continuous infusion and intermittent IV dosing. Patients receiving both strategies during admission were categorized according to the predominant method used. Patients were excluded if they had a history of heart transplant or LVAD, an ICU admission or inotropic therapy, ESRD ± renal replacement therapy, in-hospital mortality or discharged to hospice, hypotension, or hospitalized < 48 hours. The primary endpoint was hospital LOS. Secondary endpoints were changes in renal function, urine output, weight, and proBNP.

Results:

A total of 309 patients were screened and 65 patients were included with 17 in the continuous infusion group and 48 in the intermittent IV bolus group. The average median LOS was 11.30 days and 5.40 respectively. There was no statistically significant difference in the primary outcome of hospital LOS between the two groups (P=0.777). There was no statistically significant difference among secondary endpoints of serum creatinine at 72 hours, weight change at 72 hours, net urine output at 24 and 72 hours, and change in proBNP.

Conclusion:

This study found no statistically significant difference in hospital LOS between patients treated for ADHF who received continuous versus intermittent IV bolus loop diuretics. Continuous infusion was also not associated with improved clinical outcomes in this cohort.

Graves, Katy

Comparison of Abbott and Roche Analyzers on Bayesian Software Predictability for Vancomycin AUC

Graves, Katy; Patel, Pratish; Wiencek, Joseph; Hermane, Allison; Ing, Austin
Vanderbilt University Hospital, Nashville, TN

Background/Purpose

Vancomycin requires thorough drug monitoring due to its narrow therapeutic index. With recent advances in Bayesian software, area under the curve (AUC)-based dosing is the preferred method for vancomycin therapeutic monitoring. It is unclear what impact the discrepancies in vancomycin plasma levels between laboratory analyzers may have on Bayesian software recommendations, particularly as the available models are derived from retrospective studies that may have utilized analyzers with varying reliability. The purpose of this study is to evaluate the discrepancies in vancomycin plasma levels across three analyzers and to determine their impact on Bayesian software predictability and dosing recommendations.

Methods

In this prospective method-comparison study, adult patients receiving vancomycin with steady-state concentrations were evaluated. Plasma samples from each patient were analyzed using BD Vacutainer™ Plastic Blood Collection Tubes with K2 EDTA on all three of the following platforms: Abbott Alinity c, Abbott Architect, and Roche cobas c503. Bayesian AUC-based calculations were performed separately for each analyzer's result. The primary outcome was predicted vancomycin AUC utilizing the patient's active regimen. Outcomes were stratified by pharmacokinetic model, and secondary outcomes included achievement of model fit, recommended total daily dose (mg), and concordance with observed and predicted trough (mg/L) for the patient's active regimen. Statistical comparisons across analyzers were performed using a Friedman test, followed by a Wilcoxon signed-rank test to identify pairwise differences when applicable.

Results and conclusions

Will be described at the time of presentation.

Green, Victoria

Leveraging the Electronic Medical Record to Improve Linkage to Comprehensive HIV Prevention Services

Green, Victoria, Underwood, Elizabeth, Donkoh, Patrick, Douglass, Gabriella
Arcare, Searcy, AR

Background and Purpose

In the last decade, Arkansas has seen a substantial increase in HIV cases, yet utilization of HIV prevention services remains low. Arcare is a nonprofit primary care organization that provides comprehensive HIV prevention and treatment services throughout Arkansas. In 2024, Arcare conducted a review to identify missed opportunities for eligible patients testing negative for HIV to be linked to comprehensive HIV prevention services (LCPS). The purpose of this analysis was to evaluate the effectiveness of a modified electronic medical record (EMR) optimization approach to identify eligible patients for LCPS.

Methods

A pre- and post-intervention study design was utilized to evaluate the effectiveness of this approach. Previously, patients eligible for LCPS were identified based on HIV high-risk MEDCIN findings documented in social history. In 2024, EMR specialists utilized an analytic platform to compile patient information from the EMR and laboratory service providers. The platform generates a list of patients eligible for LCPS who meet pre-identified criteria based on ICD-10 codes associated with HIV risk factors. A monthly report is shared with the clinical pharmacy team, revealing patients linked to LCPS and those awaiting or requiring LCPS. In addition, for patients identified as eligible, an alert is generated for providers in the EMR to facilitate LCPS.

Results

During the pre-intervention period (June 2023-May 2024), 11,310 individuals tested HIV negative. Of these, 10,894 (96.3%) were assessed for eligibility for LCPS. A total of 561 individuals (5.1%) were identified as eligible, and 29 (5.2%) were successfully linked to CPS. In the post-intervention period (June 2024-May 2025), 10,735 individuals tested HIV negative, and all were assessed for LCPS eligibility (100%). Of these, 8,778 (81.8%) were identified as eligible. Among those eligible, 6,934 (79.0%) were successfully linked to LCPS, having completed an appointment with a prescribing provider.

Conclusions

Leveraging the EMR significantly improved the effectiveness of LCPS. Automated alerts and refined reporting contributed to an increase in eligibility identification and linkage rates. These findings underscore the value of EMR optimization in enhancing HIV prevention efforts. Further refinement of processes, including the use of AI to validate data and workflows, may offer additional opportunities to expand improvements in LCPS outcomes.

Greer, Natalie

Effect of Timing of Initiation of Dexmedetomidine as Secondary Sedation on ICU Outcomes

Greer, Natalie[1]; Kimmons Buzan, Lauren[1,2]; Reichert, Michael[1,2]; Samarin, Michael[1]
Methodist University Hospital, Memphis, Tennessee[1]
University of Tennessee Health Science Center, Memphis, Tennessee[2]

Background and Purpose

Dexmedetomidine is a preferred sedative in intensive care units (ICUs) due to its unique profile that offers sedation, analgesia, and anxiolysis without significant respiratory depression. According to the 2018 Society of Critical Care Medicine guidelines, targeting a light level of sedation is preferred to improve short term outcomes, including duration of mechanical ventilation and ICU length of stay (LOS). Though guidelines recommend targeting a lower level of sedation, it is not known when the optimal time to initiate dexmedetomidine is when it's not used as the initial sedative post intubation. The purpose of this study was to evaluate the optimal timing of dexmedetomidine initiation on ICU outcomes.

Methods

This was a multi-center, retrospective review of adult patients admitted from October 2024 to August 2025. Patients meeting inclusion criteria were divided into two groups: those who received dexmedetomidine within 36 hours of intubation (early group) and those who received dexmedetomidine $\geq$36 hours after intubation (late group). Adults receiving invasive mechanical ventilation initiated on dexmedetomidine with another continuous sedative agent at the time of dexmedetomidine initiation were included. Pertinent exclusion criteria were neurologic injury, post drug overdose, scheduled for palliative extubation, passed away while mechanically ventilated, expected mechanical ventilation for <24 hours, or required tracheostomy placement. The primary outcome was to evaluate the association between early or late dexmedetomidine initiation and time to extubation. Secondary outcomes included ICU and hospital LOS as well as rates of self-extubation.

Results

Of the 200 patients included, 99 were in the early group and 101 were in the late group. On average, patients were 65 years old, 41% male, and had a primary defined cause of ICU admission of sepsis. There was no significant difference in time to extubation after dexmedetomidine initiation. For secondary outcomes, early initiation resulted in significantly shorter ICU (7.6 days vs. 5.7 days; $p < 0.001$) and total hospital LOS (17.1 days vs. 12.0 days; $p = 0.017$), but no difference in rates of self-extubation.

Conclusions

This retrospective study revealed no difference in extubation time between early and late dexmedetomidine initiation, however there was benefit in hospital and ICU LOS with earlier initiation.

Grothe, Marissa

Evaluating the Targeted Treatment Cascade of Care in Oncology Patients from Genetic Test Result to Treatment Initiation

Marissa Grothe, Brooke Looney, Autumn Zuckerman, Vanderbilt Specialty Pharmacy, Vanderbilt Health, Nashville, TN, and Josh DeClercq, Vanderbilt Health, Nashville, TN

Background and Purpose

The three main steps of precision oncology are (1) tumor genetic testing, (2) result interpretation, and (3) targeted drug prescribing and procurement.

This study evaluated the patient journey through the targeted anticancer treatment cascade and reasons targeted treatment was not initiated.

Methods

This single-center, retrospective study included patients with a clinic visit for a diagnosis of a female genital cancer (FGC), Male Genital Cancer (MGC), or Digestive Organ Cancer (DOC) and an actionable mutation genetic test result in 2023 or 2024. Exclusion reasons were previous targeted treatment for the mutation, transition of care, or death between testing result and evaluation. Outcomes included the rate of progressing through each step in the cascade of care (testing evaluation, treatment prescription, and treatment initiation), the time within each step, and the reasons for non-progression. Data was retrospectively collected through electronic health record (EHR) chart review, with patients followed for one year from test result date. Outcomes were analyzed descriptively.

Results

From 94 patients identified, 24 were excluded due to: previous targeted treatment (n=14), transitioned care (n=7), and deceased (n=3). In the final population (FGC: n=7, MGC: n=25, DOC: n=38), over half of patients had stage 4 disease (FGC: 71%, MGC: 92%, and DOC: 66%).

Within one year of testing results, 21% of patients initiated targeted treatment (FGC: 71%, MGC: 20%, DOC: 13%). Almost all patients had an evaluation within 12 months of testing (FGC: 86%, MGC: 92%, DOC: 87%). Of evaluated patients, FGC had the highest rate of treatment prescription (83%, MGC: 26%, DOC: 24%). Treatment was commonly not prescribed due to clinical stability on current therapy (FGC: 100%, MGC: 35%, DOC: 44%). Most patients who were prescribed treatment did initiate therapy (FGC: 100%, MGC: 83%, DOC: 63%).

In patients with an evaluation, median time from test result to treatment initiation was longest in FGC (161 days; IQR 148, 197); MGC (69 days; IQR 28, 113); DOC (88 days; IQR 71, 105).

Conclusions

Across all cancer types, treatment initiation rates were low despite high evaluation rates, with clinical stability on current therapy being the primary reason for lack of progression through the cascade.

Grubbs, Christopher

Evaluation of A Maximum Standard Fentanyl Rate of 200mcg/hr vs 400mcg/hr on Average Fentanyl Exposure Per Day

Grubbs, Christopher; Devier, Margaret; Watson, Mackenzie; Pena, Kelsey
Ascension Saint Thomas Hospital Midtown, Nashville, Tennessee

Background and Purpose

Fentanyl is commonly used for analgesia and sedation in mechanically ventilated ICU patients and supports the analgesia-first strategy recommended by PADIS guidelines. Although guidelines emphasize titration to the lowest effective dose and use of validated tools (RASS, CPOT), they do not define maximum opioid infusion rates. Institutional order sets often include default maximum infusion limits as safety guardrails; however, evidence supporting optimal inpatient opioid limits is limited. In July 2022, Ascension Saint Thomas increased the default maximum fentanyl infusion rate from 200 mcg/hr to 400 mcg/hr. This study evaluated the effect of increasing the maximum infusion rate on fentanyl exposure and clinical outcomes.

Methods

This retrospective cohort study included adult ICU patients (≥18 years) admitted between February 1, 2022 and January 28, 2023 who required mechanical ventilation and received a fentanyl infusion. Exclusion criteria included ventilation <24 hours, trauma or hospice status, and documented opioid use disorder or intravenous drug use. Cohorts were defined by institutional maximum infusion rate: 200 mcg/hr (February–June 2022) and 400 mcg/hr (August–December 2022). The primary outcome was average fentanyl exposure per day. Secondary outcomes included sedation measures, ICU and hospital length of stay, and other clinical outcomes.

Results

Statistical analysis is ongoing. Preliminary results demonstrate higher mean fentanyl exposure per day in the 400 mcg/hr cohort compared to the 200 mcg/hr cohort (3201.6 ± 391.9 mcg/day vs 2859.0 ± 302.8 mcg/day), with statistical analysis pending. Variability in fentanyl exposure was greater in the 400 mcg/hr group. Sedation measures appeared similar between cohorts, with no clear differences in target attainment. ICU and hospital length of stay were also comparable, with no apparent differences observed.

Conclusions

Preliminary findings suggest that increasing the standard maximum fentanyl infusion rate from 200 mcg/hr to 400 mcg/hr may be associated with higher average daily fentanyl exposure without apparent differences in secondary clinical outcomes. Final statistical analysis is needed to confirm these findings. If confirmed, these results may suggest that lower standard maximum infusion rates could reduce opioid exposure while maintaining similar clinical outcomes.

Gruver, Jaclyn

Phenobarbital in the Emergency Department for Severe Alcohol Withdrawal

Gruver, Jaclyn – Author; Stirrup, Natalie – Co-Author; Wilson, Ashley – Co-Author
UAMS Medical Center, Little Rock, AR

Background and Purpose

In alcohol withdrawal syndrome (AWS), the balance of gamma-aminobutyric acid (GABA) and glutamate are altered, resulting in brain hyperexcitability which leads to symptoms of withdrawal. Current guidelines for management of AWS recommend benzodiazepines as first line for prophylaxis and treatment of AWS. Phenobarbital can be used as monotherapy for prophylaxis and/or treatment or can be given in addition to benzodiazepines. At UAMS, phenobarbital gained popularity as a treatment option for AWS in August 2023 with implementation of a new alcohol withdrawal order set. The purpose of this study was to compare the impact of intravenous phenobarbital on patient disposition for those with severe AWS.

Methods

This was a single-center retrospective cohort study with two historical cohorts. The pre-implementation cohort included patients treated with standard benzodiazepine monotherapy in the emergency department (ED) between July 1, 2021 and June 30, 2023. The post-implementation cohort included patients who received phenobarbital in the ED between July 1, 2023 and September 30, 2025. Patients were identified through admission diagnosis of alcohol withdrawal. The primary objective was total hospital length of stay (LOS). Secondary objectives included patient disposition and treatment failure as evidenced by requirement for higher level of care. The safety objective was the number of patients that had a documented seizure.

Results

A total of 36 patients were included with 18 patients in each cohort. Fifteen patients in each cohort were admitted with an average LOS of 82 hours and 76 hours in the pre- and post- cohorts, respectively ($p=0.39$). No patients required an escalation of care; two patients in the pre-cohort and one patient in the post-cohort returned to the ED within 72 hours ($p=0.5$). The pre-implementation cohort received a higher cumulative benzodiazepine dose in lorazepam equivalents during admission, 23.6 mg versus 13.8 mg ($p=0.11$). One patient in each cohort had a documented seizure ($p=0.78$).

Conclusion

These findings suggest phenobarbital may reduce overall hospital length of stay and benzodiazepine exposure without increasing major complications.

Harnish, Jenna

Evaluating Medication History Changes Pre- and Post-Implementation of a Fully Staffed Medication History Technician Program

Harnish, Jenna; Bhat, Sarita; Wallace, Matthew
Vanderbilt University Medical Center, Nashville, TN

Background and Purpose

Medication history technicians (MHT) play an important role in obtaining the best possible medication histories, thereby supporting safe transitions of care and improving the accuracy of the medication reconciliation process. This study aimed to evaluate the impact of a fully staffed MHT program on medication history changes versus a non-fully staffed program amid national health-system financial constraints and increased hospital admissions.

Methods

Retrospective review comparing the change in total medication histories completed by a fully staffed MHT program, defined as 6 MHT, from June 1, 2024 to May 31, 2025 (hereafter referred to as 2024-2025) versus a non-fully staffed program, defined as less than 6 MHT, from June 1, 2023 to May 31, 2024 (hereafter referred to as 2023-2024). Secondary outcomes for a fully staffed MHT program included total prior-to-admission (PTA) medication changes, number of PTA medications post-medication history completion, time from patient admission to medication history note publication, and medication histories completed for high-risk patients.

Results

From 2023-2024, there were a total of 10,289 hospital admissions to an internal medicine service. The total number of medication histories completed was 5,501 with 2,066 (38%) completed by less than 6 MHT. From 2024-2025, total hospital admissions to an internal medicine service increased 6% to 10,892. Similarly, the total number of medication histories completed rose to 6,328 with 2,840 (45%) completed by 6 MHT.

The fully staffed MHT program during 2024-2025 captured a total of 7,808 medication additions, 7,458 removals, and 6,177 updates as PTA medication changes. The average PTA medication list contained 17 medications post-history completion with a mean time of 25.8 hours from admission to history note publication. Finally, 1,757 (62%) of the 2,840 medication histories completed by MHT were for high-risk patients identified by a Target PTA Medication Reconciliation Score (Adult) of ≥ 40.

Conclusions

Expansion to a fully staffed MHT program led to a 37.5% increase in medication histories completed by MHT, accommodating both internal medicine service admission growth and expanded patient outreach. These findings suggest that maintaining a fully staffed MHT program supports higher rates of medication histories and facilitates identification of clinically meaningful PTA medication discrepancies.

Harrell, Kaleigh

Implementation of Diagnostic Stewardship Intervention to reduce Inappropriate Ordering of Urine Cultures

Harrell, Kaleigh; Bowden, Jarred; Gillion, Amanda
Lt. Col. Luke Weathers Jr. VA Medical Center, Memphis, TN

Background/Purpose

Urine cultures are frequently ordered in inpatient and emergency department settings, but inappropriate ordering often leads to unnecessary treatment of asymptomatic bacteriuria. This can lead to adverse drug events, polypharmacy, and antimicrobial resistance. Evidence shows abnormal urinalysis findings commonly drive culture ordering even in the absence of urinary symptoms. A revised electronic urine culture ordering menu was developed to align ordering practices with guideline-based indications. This study aims to assess the effectiveness of the ordering menu in guiding appropriate ordering of cultures and minimizing unnecessary exposure to antibiotics.

Methods

This is a retrospective, observational chart review of patients with urine cultures ordered during inpatient or emergency department encounters across two study periods: pre-intervention (October 1, 2022 – September 30, 2023) and post-intervention (October 1, 2024 – September 30, 2025). The intervention consists of a revised electronic urine culture ordering menu that incorporates guideline-based decision support by clearly listing appropriate clinical indications for urine culture testing. Appropriateness of urine culture ordering was determined according to the Infectious Diseases Society of America criteria.

Results

Preliminary results included a total of 5,211 patients that were screened, with 150 patients included in both the pre-intervention and post-intervention groups. Appropriate urine culture ordering occurred in 55 patients in the post-intervention group compared to 49 patients in the pre-intervention group. Antibiotics were prescribed in 34 patients pre-intervention and 41 patients post-intervention. Antibiotic prescribing for asymptomatic bacteriuria decreased from 6 cases to 3 cases. The proportion of positive urine cultures was similar between groups.

Conclusions

Pending completion of data collection and analysis.

Herron, Sutton

Fosfomycin for UTIs in Males Caused By ESBL-E

Ryan, Tenley; Douglass, Dana; Hoover, Jonathan
Lt. Col. Luke Weathers Jr. VA Medical Center, Memphis, TN

Background and Purpose:

As the incidence of antimicrobial resistant pathogens continues to grow, use of alternative therapies such as fosfomycin has increased. The primary purpose of this study is to compare the clinical failure rates between use of fosfomycin and carbapenems in male patients for the treatment of urinary tract infections (UTIs) caused by Extended-spectrum producing Enterobacterales (ESBL-E). This study will further evaluate clinical failure of antibiotics based on the specific ESBL-E producing pathogen grown on culture, compare hospital length of stay, and assess 30-day readmission rates following inpatient treatment as well as 30-day admission rates following outpatient treatment.

Methodology:

Electronic medical records of Veterans were retrospectively reviewed. Veterans treated for ESBL-E UTI from December 2014 through July 2025 were identified using a structured query language (SQL) query. Male Veterans receiving treatment for a UTI caused by an ESBL-E producing pathogen on urine culture were included in this study. Exclusion criteria included patients diagnosed with pyelonephritis or prostatitis, those with concurrent bacteremia or other infection, and those with a urine culture positive for Pseudomonas. The analysis compared male patients treated for ESBL-E UTI who received 7 days of definitive treatment with either fosfomycin or a carbapenem. This study defined clinical failure as the need for antibiotic intensification after the treatment of UTI, hospital admission for UTI for patients previously treated as outpatients or readmission for patients previously treated as inpatients, emergency department encounter due to UTI following initial treatment, or death from any cause within 30 days following treatment initiation.

Preliminary Results:

1,000 patients were screened with 31 patients included in the fosfomycin group and 20 patients in the carbapenem group. Clinical failure occurred in 3 of 31 (10%) patients in the fosfomycin group and 5 of 20 (25%) patients in the carbapenem group. The average hospital length of stay was 13.2 ± 20 days in the fosfomycin group and 9.2 ± 6.5 days in the carbapenem group. Thus far, the most common ESBL-E producing pathogen on urine culture was *E. coli* (29 of 51 patients (57%)). Data collection is ongoing.

Conclusions:

Pending completion of data collection and analysis.

Hoing, Miranda

Retrospective Evaluation of Aminoglycoside Susceptibility in Positive Urine Cultures Following Emergency Department Discharge with Uncomplicated Cystitis

Hoing, Miranda; Ivy, Madalyn; Ducote, Lauren
Baptist Memorial Hospital – Golden Triangle, Columbus, MS

Background and Purpose

Evidence supports that a single, weight-based parenteral aminoglycoside dose can achieve adequate urinary concentrations to effectively treat lower urinary tract infections (UTIs) in select patients, providing immediate bactericidal activity and potentially eliminating the need for an oral outpatient regimen. This approach offers several advantages in the Baptist Memorial Hospital- Golden Triangle (BMH–GT) population: reduces unnecessary outpatient oral antibiotic exposure, improves adherence by completing therapy in the Emergency Department (ED), decreases risk of resistance through targeted, short-course therapy, lowers healthcare costs by minimizing prescriptions and follow-up visits, and supports antimicrobial stewardship initiatives. The purpose of this study is to assess the data collected for patients who are treated with antibiotics in the ED for acute cystitis to determine which patients may benefit from treatment with a single dose of aminoglycoside.

Methods

A single-center retrospective chart review to assess the potential role of a single-dose aminoglycoside strategy for empiric treatment of cystitis in the ED. Non-pregnant, non-incarcerated adult patients diagnosed with cystitis who presented to the ED between July 1, 2022 and June 30, 2025, had a urine culture collected, discharged home on oral antibiotics and/or administered antibiotics during visit were included. Additional exclusions include chronic indwelling foley catheter, chronic cystitis, end-stage renal disease on dialysis, and/or aminoglycoside allergy. The study will evaluate urine culture results, antimicrobial susceptibility profiles, and clinical variables to determine the proportion of isolates susceptible to at least one aminoglycoside. The primary outcome of this study is to determine the proportion of positive urine cultures from ED-discharged patients that would have been adequately treated by a single empiric dose of parenteral aminoglycoside. Secondary outcomes include identifying the most common urinary pathogens, evaluating local aminoglycoside susceptibility patterns, and estimating the potential reduction in outpatient oral antibiotic prescribing. Descriptive statistics will be used to analyze continuous and categorical variables.

Results

Results will be described at the time of the presentation.

Conclusion

Conclusion will be described at the time of the presentation.

Holmes, Arnecia

Inpatient Use of Dexamethasone for the Management of Cerebral Edema and Acute Neurological Symptoms Secondary to a Brain Tumor

Holmes, Arnecia; Sakaan, Sami; Marjoncu, Dennis; Jones, Kerri
Methodist University Hospital, Memphis, TN

Background and Purpose

Cerebral edema is a significant cause of morbidity in patients with primary or metastatic brain tumors due to disruption of the blood–brain barrier and fluid accumulation within brain tissue. As edema progresses, patients may develop headaches, seizures, neurological decline, and other life-threatening complications. Dexamethasone has been the standard corticosteroid for managing peritumoral edema for decades because of its potency and long half-life, yet optimal dosing remains unclear. Evidence suggests that lower doses may offer similar neurological benefit to higher doses while reducing dose-related adverse effects such as hyperglycemia and immunosuppression. This study aims to compare clinical outcomes between lower dose/short-course and high-dose/prolonged course dexamethasone regimens in adults with cerebral edema secondary to brain tumors.

Methods

This multi-site, retrospective study evaluated adult patients admitted to the Methodist Le Bonheur Healthcare system with cerebral edema secondary to brain tumors who received scheduled dexamethasone between October 5, 2024, and August 31, 2025. Patients were categorized into an LDSC (low-dose/short-course) group defined as 16 mg/day for <72 hours or < 16 mg/day regardless of duration, and an HDPC (high-dose/prolonged course) group defined as 16 mg/day for ≥72 hours. The primary outcome was the incidence of worsening neurological symptoms after dexamethasone initiation. Secondary outcomes included neurological or radiographic improvement, time from initiation of maintenance dexamethasone to taper, and hospital length of stay.

Results

Seventy patients met inclusion criteria, with a median age of 64 years and a population composed predominantly of Black females. Forty-five patients were assigned to the LDSC group and twenty-five to the HDPC group. The HDPC group had fewer worsening neurological symptoms and a higher rate of symptom improvement (p=0.007). Median time to taper was 3.8 days in the LDSC group versus 6.7 days in the HDPC group (p=0.026). Median hospital length-of-stay was longer in the HDPC group at 8.2 days compared with 4.5 days in the LDSC group (p=0.004).

Conclusions

Patients receiving HDPC dexamethasone demonstrated significantly fewer worsening neurological outcomes and greater symptom improvement compared with the LDSC group. However, hospital length-of-stay was significantly longer in the HDPC group.

Hooper, Anne Thomas

Measurement and Improvement Efforts for Nephrotoxic Medication Associated Acute Kidney Injury: a quality improvement project

Hooper, Anne Thomas, Hoffman, James, Robertson, Jennifer
St. Jude Children's Research Hospital, Memphis, Tennessee

Background/Purpose:

Acute kidney injury (AKI) is associated with poor morbidity and mortality outcomes in hospitalized pediatric patients. A common cause of AKI in children is exposure to nephrotoxic medications. Nephrotoxic-associated acute kidney injury (NAKI) Improvement Cohort Wave 2 is an initiative by the Solutions for Patient Safety (SPS) to reduce the rate of nephrotoxicity and overall harm in pediatric patients. The purpose of this study is to establish St. Jude Children's Research Hospital's baseline NAKI rate, baseline nephrotoxic medication (NTMx) exposure rate, and baseline average exposure rate. Once established, the team will implement interventions to decrease rates.

Methods:

This quality improvement project will use the Institute for Healthcare Improvement (IHI) methodology as the general framework. Interventions will be implemented via Plan-Do-Study-Act (PDSA) cycles and reviewed for effectiveness. Data was collected in a retrospective nature and analyzed to determine the following outcome measures: the NAKI rate, calculated by the number of NAKI events and patient days; the NTMx exposure rate, calculated by the total number of NTMx exposures and number of patient days; and the average NTMx exposure rate, calculated using the total number of NTMx exposure days and the total number of exposure events. Patient information, including patient name, medical record number, age during AKI, serum creatinine, cystatin-C, clinical service during AKI, dates of AKI if the NAKI criteria was met, and administration of prespecified nephrotoxic medications. The study data was obtained from Epic for all inpatient admissions from January 1st, 2023 to present day. Following data collection and analysis, the study team will determine interventions to implement and test. PDSA cycles will be used to implement the chosen interventions and assess the outcomes.

Results:

The NAKI rate and nephrotoxic medication exposure rates have been calculated based on preliminary data, and all results will be described at the time of presentation. The NAKI rate identified is 12.52. The nephrotoxic medication exposure rate has been calculated as 27.54.

Conclusion:

Conclusion to follow once final results are available.

Horton, Daniel

Surgical Timing of Antibiotic Medications for the Prevention of Surgical Site Infections (STAMPS)

Horton, Daniel[1]; Huddleston, Toni[1]; Eschete, Lori V.[1]; Fitts, Austin[1]
North Mississippi Medical Center, Tupelo, MS[1]

Background and Purpose

Prophylactic antibiotics should be re-dosed for prolonged duration surgeries to ensure adequate antibiotic concentrations are maintained, which may lead to decreased surgical site infections (SSI).

Methods

In this single-center, observational, retrospective study, adult patients admitted to a large rural hospital's surgery department from July 1, 2024, to December 31, 2024, who underwent surgery for longer than 2 hours were evaluated for post-operative SSIs. The pharmacy team then added a hard stop in the electronic medical record to prompt an anesthesia team member to assess whether re-dosing antibiotics was indicated. After implementation of the hard stop, an additional cohort of patients was evaluated. This post intervention cohort occurred from April 1, 2025, to September 30, 2025. The exclusion criteria were patients with creatinine clearance of less than 10 mL/min, pregnancy, age less than 18 years, and allergy to chlorhexidine. The primary objective was to compare the rate of SSI between the pre-implementation and post-implementation groups. Key secondary objectives were all-cause mortality, antibiotics administered within 60 minutes of procedure start time, and length of stay.

Results

A total of 330 patients were included (pre-intervention n = 164; post-intervention n = 166). The post implementation group was associated with lower odds of 30-day SSIs (OR 0.64, 95% CI 0.25-1.57, $p = 0.31$); however, the difference wasn't statistically significant. All-cause mortality was significantly lower in the post-implementation group (1.2% vs 11%, $p < 0.001$). Patients in the post-implementation group were twice as likely to receive antibiotics within 60 minutes of the procedure start time (OR 2.04, 95% CI 1.39-3.02; $p < 0.001$). Length of stay was numerically lower in the post implementation group (5.08 vs 6.61 days), though the difference did not reach statistical significance ($p = 0.14$).

Conclusion

The implementation of a more robust perioperative antibiotics protocol was associated with improvement in clinical outcomes, including lower odds of 30-day surgical site infections, reduced all-cause mortality, timely administration of antibiotics, and shorter length of stay.

Huckaba, Kylie

Identifying Risk Factors for Treatment Failure with Oral Vancomycin in Initial Clostridioides difficile Infection to Support First-Line Fidaxomicin Use

Huckaba, Kylie , Crader, Marsha, Taylor, Prisca
St. Bernards Medical Center, Jonesboro, AR

Background and Purpose

According to the Infectious Diseases Society of America (IDSA) guidelines, fidaxomicin is the preferred first-line therapy for Clostridioides difficile infection (CDI). However, because of its higher cost, many institutions reserve it for high-risk patients. A better understanding of risk factors for treatment failure with oral vancomycin could support cost-effective, targeted use of fidaxomicin. The purpose of this study is to identify risk factors that contribute to treatment failure in patients receiving oral vancomycin for initial CDI. The goal of this study is to provide evidence to support the use of fidaxomicin as a first-line therapy in patients with specific demographics.

Methods

A single center, retrospective observational cohort study will be conducted to determine contributing factors to failure with oral vancomycin for initial CDI cases. The data collection period will be from July 2021 through June 2025. The treatment failure group, which includes patients who failed oral vancomycin before completing a planned 10-day course due to lack of response or clinical worsening, will be compared to the control, or non-treatment failure group. The following will be inclusion criteria: inpatient adults ≥18 years, positive C. difficile test, and first occurrence of CDI treated initially with oral vancomycin. Patients with fulminant CDI will be excluded.

To identify risk factors associated with oral vancomycin treatment failure, multiple data points will be collected to determine the primary study outcome. These risk factors include CDI severity according to IDSA guidelines, serum creatinine, serum albumin, age, presence of C. difficile strain 027, immunocompromised status, intensive care unit admission, hospital length of stay prior to diagnosis, use of gastric acid suppressants, concurrent antibiotic therapy, exposure to antibiotic therapy within the previous 90 days, and number of risk factors. Secondary outcomes will be hospital length of stay, mortality, and resolution of symptoms with fidaxomicin, which will be defined as clinical improvement indicated by infectious disease or gastrointestinal providers' documentation. Since the risk factors will be defined as categorical variables, a chi-square test will be utilized to determine the relationship between risk factors and outcomes.

Results

Results will be described at the time of the presentation

Jackson, Jada

Justifying the Need and Feasibility for the Implementation of a Hospital Compounding Pharmacy

Jackson, Jada; Jones, Darryl; Sidebottom, Ashley; Hanissian, Silva; Lindsay White
Baptist Memorial Hospital – Memphis; Memphis, TN

Background and Purpose

USP <795> is a set of pharmacy guidelines established by the United States Pharmacopeia which outlines minimum standards required for compounding nonsterile medications. Some key Standard Operating Procedures required for compliance include having a clean and sanitary environment as well as maintaining an orderly arrangement of equipment and materials. Baptist Memorial Hospital - Memphis is one of the few facilities equipped and staffed to safely meet these USP <795> standards for a 503A compounding pharmacy. The purpose of this study is to evaluate whether establishing a 503A compounding pharmacy within our hospital is beneficial based on the types and volume of the medications we currently compound.

Methods

This study is a quality improvement review of compounded prescriptions prepared in both the outpatient and inpatient pharmacies at Baptist Memorial Hospital - Memphis from October 1, 2024, to September 30, 2025. To assess the need and feasibility of implementation, outpatient quantity and types of compounded prescriptions as well as inpatient prescription types and volumes will be reviewed. Additionally, costs and revenue associated with the top 10 compounded drugs will be analyzed in both pharmacies. This study has been submitted to the Institutional Review Board (IRB) for approval.

Results

Results will be described at the time of the presentation.

Conclusion

Results will be described at the time of the presentation.

Jacobs, Virginia

Comparison of droperidol doses for the management of acute agitation in the emergency department

Jacobs, Virginia; Daniel, Brittany; Ragheb, Melissa; Benesh, Rachel; Lykins, Erica
Ascension Saint Thomas Rutherford, Murfreesboro, TN

Background and Purpose

Droperidol is a butyrophenone antipsychotic that produces alpha-adrenergic blockade, induces peripheral vascular dilation, and blocks dopamine at the chemoreceptor trigger zone. Droperidol is FDA approved to reduce nausea and vomiting associated with surgical and diagnostic procedures. However, it is commonly used off-label for the treatment of acute, undifferentiated agitation. The purpose of this study was to determine if acutely agitated adult patients presenting to the emergency department (ED) required fewer interventions when treated with low dose (2.5mg to <4mg) or high dose (4mg to 5mg) droperidol.

Methods

This was a single center, retrospective chart review of acutely agitated patients that presented to the ED and were treated with droperidol between August 30, 2024 and August 30, 2025. Data were categorized by the use of low or high dose droperidol for statistical analysis. Additional interventions were extracted from the electronic health record and included pharmacotherapy and/or physical restraints. The primary outcome was the requirement for additional interventions within one hour of initial low or high droperidol dose. Secondary endpoints were the rates of common adverse events. Data were analyzed using the chi-square test.

Results

Among 756 patients screened, 83 (10.9%) patients met inclusion criteria. Among the 83 included patients, 41 (49.4%) patients received low dose and 42 (50.6%) patients received high dose droperidol. Although fewer patients required additional interventions with low dose droperidol compared to high dose (17.1% vs 21.4%, respectively), no statistically significant difference was observed between the two groups (p=0.615). No patients in either group experienced extrapyramidal symptoms and there was no statistically significant difference in the rate of QTc prolongation (p=0.562).

Conclusion

Findings suggest a lower dose of droperidol may be similarly effective to higher doses without an increased risk of adverse events. Due to limitations of this study, further investigation is warranted to better assess the efficacy and safety of droperidol dosing strategies in the management of acute agitation.

Johnson, Jaden

Assessing hyperkalemia-lowering therapies in hospitalized patients: An analysis of efficacy and cost-effectiveness of monotherapy, sodium zirconium cyclosilicate, and dual therapy, patiromer and sodium polystyrene sulfonate

Johnson, Jaden, Hasford, Erika, Miller, Blair, Rehs, Lisa, Reese, Mary, Summers, Karen
Maury Regional Medical Center, Columbia, TN

Background and Purpose

Acute hyperkalemia is a commonly studied electrolyte disturbance occurring in hospitalized patients. Treatment options for acute and chronic hyperkalemia include potassium binders, such as sodium polystyrene sulfonate, patiromer, and sodium zirconium cyclosilicate. Potassium binders work within the gastrointestinal tract to lower potassium levels; however, sodium polystyrene sulfonate has been shown to cause gastrointestinal necrosis in patients who use it. The goal of this study is to determine the cost-effectiveness of-previously used dual therapy versus current practice monotherapy.

Methods

This was a retrospective chart review. The primary outcome was a 24-hour cost-effectiveness analysis evaluating the inclusion of dual therapy, sodium polystyrene sulfonate and patiromer to monotherapy sodium zirconium cyclosilicate, and the average time to normalized potassium levels, defined as a $K < 5.2$ mEq/L within 24 hours. The secondary efficacy outcome was time to normalized potassium level within 24 hours. The secondary safety outcome was the occurrence of hypokalemia events after potassium binder administration.

Results

The average cost of sodium zirconium cyclosilicate was $40, and the average time to a normal potassium level was nine hours. Average costs of sodium polystyrene sulfonate, patiromer, and the combination of sodium polystyrene sulfonate and patiromer were $61, $70, and $51, respectively. Average time to normalized potassium levels in 24 hours for sodium polystyrene sulfonate, patiromer, and patients receiving a combination of sodium polystyrene sulfonate and patiromer were 12, 11, and 13 hours, respectively. Secondary efficacy outcomes were not statistically significant. Patients receiving sodium zirconium cyclosilicate were more likely to experience hypokalemic events (58%; n=12).

Conclusion

Monotherapy sodium zirconium cyclosilicate appeared more cost-effective than dual therapy with sodium polystyrene cyclosilicate and patiromer on the formulary. It was noted that multiple doses of sodium zirconium cyclosilicate without a defined stop date could increase the incidence of hypokalemic events. Protocols should be implemented at facilities to prevent patients from receiving multiple doses without stop dates. In addition, frequent monitoring could help prevent hypokalemic events in patients receiving continuous sodium zirconium cyclosilicate.

Jones, Georgia

Breathtaking News: The Impact of Care Delays on COPD Outcomes

Jones, Georgia; Brunson, Allison; Baird, Mallory; Crawford, Allie; Mills; Elizabeth
Baptist Memorial Health- Memphis; Memphis, TN

Background and Purpose:

Chronic obstructive pulmonary disease (COPD) exacerbations result in a decline in lung function and prognosis, which worsens as treatment delays occur. The Global Initiative for Chronic Obstructive Lung Disease (GOLD) guidelines recommend prompt initiation of short-acting bronchodilators, followed by maintenance therapy with long-acting bronchodilators. Corticosteroids and antibiotics are used as indicated. Recent studies related to the delays in guideline-directed COPD exacerbation treatment have focused on the initiation of maintenance medications following hospitalization. This study aimed to characterize and examine the effect of delays in treatment for acute exacerbations of COPD (AECOPD) in the hospital setting.

Methods:

This was a single-center retrospective chart review conducted at Baptist Memorial Hospital-Memphis for patients experiencing AECOPD from January 1, 2023 to November 30, 2025. Admission or transfer to the ICU, resulting COVID positive, pregnancy, or treatment without bronchodilators resulted in exclusion. The primary outcome was length of stay. Secondary outcomes included readmissions at 30 and 90 days, time to initiation of bronchodilators, time to return to baseline oxygen status, and adherence to guideline-recommended steroid dosing and discharge maintenance therapy.

Results:

Of the 377 patients screened, 150 were included. The mean length of stay was 3.87±2.82 days. Readmissions for any cause within 30 days occurred in 43.3% of participants and within 90 days in 42.7% of participants. The COPD-related readmission rate was 25.3% at 30 days and 90 days. The mean time to the initiation of bronchodilators was 2.17±4.15 hours. Similarly, the time to initiation of steroids was 2.19±4.16 hours. Return to baseline oxygen status or final oxygen requirement was 14.85±7.62 hours on average. The average time to initiation of maintenance therapy was 36.88 ± 64.40 hours. In terms of guideline recommended therapy, 13.3% patients received guideline-recommended steroid doses and 57.3% patients received guideline appropriate maintenance therapy at discharge.

Conclusion:

Initiation of therapy for AECOPD was prompt, and the average return to baseline oxygen status occurred within 24 hours for those requiring supplemental oxygen. Most patients received steroids exceeding guideline recommendations, and only 57.3% of patients were discharged on appropriate maintenance therapy. These are actionable areas for improvement identified by this study.

Karami, Saina

Comparison of enoxaparin dosing strategies for DVT prophylaxis focusing on internal medicine patients with BMI > 40 kg/m^2

Karami, Saina; Patel, Bethany; Sutherland, Hayley; Milwee, Rachel; Jarman, Danah; Holder, Genna
Ascension Saint Thomas Rutherford; Murfreesboro, TN

Background and Purpose

Venous thromboembolism (VTE) is a major cause of morbidity and mortality among hospitalized patients with obesity recognized as an independent risk factor. Patients with class III obesity (BMI > 40 kg/m^2) are at particularly high risk for thrombotic events; however, optimal pharmacologic prophylaxis dosing in this population remains unclear. Standard enoxaparin prophylaxis (40 mg subcutaneous daily) may result in insufficient anticoagulation in patients with class III obesity. Prior pharmacokinetic studies suggest that higher or weight-adjusted dosing may improve surrogate outcomes (anti-Xa levels) but evidence evaluating clinically relevant outcomes in non-surgical internal medicine patients is limited. At Ascension Saint Thomas Rutherford Hospital, pharmacists often recommend BMI-adjusted dosing (40 mg subcutaneous twice daily) for patients with class III obesity based on tertiary resources. This study evaluated the safety and effectiveness of BMI-adjusted enoxaparin dosing versus standard prophylactic dosing in hospitalized internal medicine patients with class III obesity.

Methods

This retrospective, single-center study included adult patients with class III obesity, admitted to internal medicine services between November 2024 and November 2025 who received enoxaparin 40mg subcutaneous daily or 40mg subcutaneous twice daily for VTE prophylaxis. The primary outcome was the incidence of VTE during hospitalization. Secondary outcomes included rates of major/minor bleeding events, as defined by the ISTH criteria.

Results

A total of 223 patients met the inclusion criteria and were included in the analysis. Among these, 99 patients (44.4%) received BMI-adjusted dosing, while 124 patients (55.6%) received standard prophylactic dosing. No cases of VTE or major/minor bleeding were observed in either group during hospitalization.

Conclusions

In this retrospective cohort of hospitalized internal medicine patients with class III obesity, both standard prophylactic and BMI-adjusted enoxaparin dosing appeared safe and effective, with no observed VTE or major/minor bleeding during hospitalization. Larger studies are needed to further evaluate optimal enoxaparin dosing strategies for patients with class III obesity.

Kendrick, Connor

Impact of an Empiric Antibiotic Protocol Change for Suspected Late-Onset Sepsis in a Level IV NICU

Kendrick, Connor; Palazzo, Lauren; Wingler, Mary Joyce; Wright, Whitley
University of Mississippi Medical Center, Jackson, MS

Background/Purpose

Suspected late-onset sepsis (LOS) is a common indication for empiric antibiotic therapy in neonatal intensive care units (NICUs). Historically, vancomycin has been routinely utilized due to the concern of methicillin-resistant *Staphylococcus aureus* (MRSA) and coagulase-negative staphylococcal (CoNS) infections. At our institution, internal data confirmed lower rates of MRSA than previously assumed. This prompted the implementation of an empiric antibiotic selection strategy recommending nafcillin in place of vancomycin for most patients without defined risk factors. This study assessed the impact of this protocol change on antibiotic utilization, protocol adherence, and clinical outcomes.

Methods

This single center, retrospective, pre/post cohort study evaluated NICU patients treated for LOS. Patients were included if admitted between December 1, 2023, and November 30, 2024 (pre) and January 1, 2025 and September 30, 2025 (post). In December of 2024, institutional protocol was updated to use nafcillin in place of vancomycin for patients without risk factors. Primary outcomes included change in vancomycin utilization rate and protocol adherence. Secondary outcomes included rate of acute kidney injury, length of stay, mortality, escalation to vancomycin, and microbiologic outcomes.

Results

A total of 136 patients were included, with 65 in the pre-intervention group and 71 in the post-intervention group. Baseline characteristics were similar between groups except neonates in the post-group were significantly older (27 vs 30 weeks; p=0.016) and weighed more (840 g vs. 1190 g; p=0.016). Vancomycin utilization decreased from 100% to 59.2%, representing an absolute reduction of 40.8%. Protocol adherence in the post-intervention group was high. No significant differences were observed in secondary outcomes with the exception of a shorter NICU length of stay in the post-intervention group (103 vs. 76 days; p=0.018). Limited patients had infections for which vancomycin would be indicated in the pre- and post-groups (MRSA: 11% vs. 0%; p=0.005; CoNS: 5% vs 7%; p=0.720).

Conclusions

Implementation of updated LOS antibiotic recommendations, which favored nafcillin first-line for patients without risk factors, reduced vancomycin use without negatively impacting patient care. These findings support the safety of targeting empiric antibiotics based on local resistance patterns and demonstrate the success of collaboration between NICU and antimicrobial stewardship.

Kerr, Kendall

Early Apixaban Use Post-Liver Transplant

Kerr, Kendall; Hamel, Stephanie; Scalzo, Riley
Vanderbilt University Medical Center, Nashville, Tennessee

Background and Purpose

End stage liver disease is a leading cause of morbidity and mortality globally, and liver transplant is a treatment option to improve survival and long-term outcomes. Since the liver produces clotting factors, patients with end stage liver disease have an unstable hemostatic system and are at high risk for both bleeding and clotting events. Due to the high thrombotic risk, patients often require anticoagulation. Some studies have reported success using direct oral anticoagulants (DOACs), such as apixaban, for first-line anticoagulation in transplant patients. These reports are small studies and limited by a median DOAC start time of one year or greater post-transplant. The purpose of the study was to evaluate the safety and efficacy of early apixaban use, defined as less than six months post-transplant, in liver transplant recipients.

Methods

A single center, retrospective study was conducted from January 1, 2021 to October 31, 2025 at a tertiary care academic medical center located in Nashville, Tennessee. Adult patients were included if they were within six months post-liver transplantation and on maintenance anticoagulation with either warfarin, enoxaparin, or apixaban to treat atrial fibrillation or thrombosis. The primary outcome was the cumulative incidence of any bleeding during anticoagulant therapy. Secondary outcomes included thrombosis, lab value changes, and the incidence of major bleeding. Patients were followed from start date of anticoagulation through one-year post-transplant.

Results

A total of 82 patients were identified and included for analysis. Twenty-six patients received warfarin or enoxaparin as maintenance anticoagulation and 56 patients received apixaban. Cumulative incidence of any bleeding was lower in the apixaban group compared to the warfarin/enoxaparin group (1.8% vs. 30.8%, $P < 0.001$). Major bleeding was also lower in the apixaban group compared to the warfarin group (1.8% vs. 27%, $P < 0.001$). Thrombosis was seen in four patients in the apixaban group and zero patients in the warfarin/enoxaparin group; however, no statistical difference was detected.

Conclusions

In this single-center, retrospective study, early apixaban use post-liver transplant was associated with significantly less bleeding compared to warfarin and enoxaparin.

Kinget, Maythai Kimberly

A Retrospective Analysis of a Newly Implemented Vte Prophylaxis Pathway In Non-Critically Ill Trauma Patients

Retrospective Analysis of Adjusted Dose VTE Prophylaxis

Kinget, Maythai Kimberly[1]; Swanson, Joseph[2]; Hill, David[1]; Filiberto, Dina[3]; Farrar, Julie[2]
[1]Regional One Health, Department of Pharmacy, Memphis, TN
[2]University of Tennessee Health Science Center College of Pharmacy, Department of Clinical Pharmacy and Translational Science, Memphis, TN
[3]University of Tennessee Health Science Center College of Medicine, Department of Trauma Surgery, Memphis, TN

Background and Purpose

Optimized chemical venous thromboembolism (VTE) prophylaxis in trauma patients is an ongoing field of study. Low molecular weight-heparin (LMWH) and unfractionated heparin (UFH) are the most common agents used in this population, and anti-factor Xa can be utilized to further optimize LMWH dosing. There is a paucity of evidence to support weight-based chemical VTE prophylaxis with anti-Xa adjustments in non-critically ill trauma patients, as most studies were performed in patients requiring intensive care unit admission. The purpose of this study is to evaluate the safety and efficacy of a newly implemented, weight-stratified VTE prophylaxis pathway (POST-group) compared to a previously used non-weight-based VTE prophylaxis approach (PRE-group) in non-critically ill trauma patients.

Methods

This single center, retrospective study evaluated trauma patients receiving VTE prophylaxis for at ≥48 hours admitted to the non-intensive care floors at Regional One Health from July 1, 2022 - June 30, 2024. Patients who were pregnant or breastfeeding, were on therapeutic anticoagulation prior to hospitalization, admitted for <72 hours, or transferred from an outside hospital were excluded from study. The primary outcome will be incidence of VTE. Secondary outcomes will include incidence of hemoglobin (Hgb) decline by ≥2 g/dL, requirement of ≥2 units of pRBCs, and fatal bleeding after VTE prophylaxis initiation.

Descriptive statistics will be used to summarize univariate outcomes, using N (percentages) for incidence and mean ± standard deviation or median (interquartile range), as appropriate. Nominal outcomes will be analyzed using chi-squared analysis, and continuous variables will be analyzed using Student's t-test or Wilcoxon rank-sum tests where applicable. Multivariable logistic regression models will identify predictive risk factors for the efficacy outcome of VTE and the safety outcome of Hgb decrease of ≥2 g/dL.

Results and Conclusions

Data collection and analysis is ongoing. Results and conclusions to be described.

Knutter, Ashley

Evaluation of the Negative Predictive Value of Methicillin-Resistant *Staphylococcus aureus* Nasal Swab Screening in the Management of Skin and Soft Tissue Infections

Knutter, Ashley; Skrmetti, Chelsea; Entrekin, Tiffany; Wakham-Bennett, Brenda; Arnold, Jon; Kennedy, Chelsey; Memorial Hospital Gulfport, Gulfport, Mississippi

Background and Purpose

Recent studies indicate that Methicillin-Resistant *Staphylococcus aureus* (MRSA) nasal polymerase chain reaction (PCR) swabs possess a significant negative predictive value (NPV) in cases of MRSA pneumonia. However, some literature has questioned the application of MRSA nasal PCR testing in patients with skin and soft tissue infections (SSTI) to assess its relevance for detecting MRSA and guiding antimicrobial management. The purpose of this study is to evaluate the NPV of MRSA nasal swab screening in the management of skin and soft tissue infections.

Methods

Currently at our facility, patients receiving antimicrobial therapy for SSTIs are screened for MRSA using a PCR nasal swab. This observational, cross-sectional study analyzes patients on current antimicrobial therapy who are admitted with a treatment indication of cellulitis and/or wounds/fractures between October 1, 2025, and March 31, 2026. The primary endpoint of this study is to assess the NPV of MRSA nasal swabs in guiding treatment decisions for SSTIs. The secondary endpoints include the following: determining the presence of *Pseudomonas aeruginosa* co-infection, average duration of hospital stay, and time to de-escalation from anti-MRSA therapy. Inclusion criteria for this study are patients aged eighteen years or older who are undergoing antimicrobial therapy for cellulitis and/or wounds/fractures and have received a MRSA nasal swab and clinically relevant cultures during their hospital stay. Patients will be excluded if they are clinically septic, neutropenic, actively receiving chemotherapy, have a documented history of MRSA within the past year, or a clinically relevant culture obtained greater than 3 days of the MRSA nasal PCR swab collection date. Patient monitoring and data collection will be conducted through the facility's electronic health record and pharmacy clinical surveillance software. The calculated NPV will be analyzed to evaluate its potential utility in guiding future antimicrobial management of SSTI's at our facility.

Results

Results will be described at the time of the presentation.

Conclusion

Conclusions are pending the completion of data analysis and will be described.

La, Minh-Sang

Incidence of Breakthrough Cytomegalovirus (CMV) Infection in High- Risk Kidney, Pancreas, and Liver Transplant Recipients

La, Minh-Sang; Cummings, Carolyn; DeKerlegand, Alaina, Lyons, Tiffany
Methodist University Hospital

Background and Purpose

Cytomegalovirus (CMV) is an opportunistic infection in solid organ transplantation (SOT), particularly in kidney, pancreas, and liver recipients. CMV viremia occurs in 16% to 56% of transplant patients and is a major risk factor for morbidity, mortality, and graft loss. Risk varies by organ, with pancreas recipients at highest risk and kidney recipients at lowest; CMV infection is associated with graft loss rates of 5.5% in kidney and 7.6% in liver recipients. Clinical presentation ranges from asymptomatic viremia to CMV syndrome or tissue-invasive disease. The highest risk occurs in CMV-serostatus mismatch (D+/R–) recipients due to lack of preexisting immunity. Despite prophylaxis, breakthrough CMV infection occurs in 5–15% of abdominal SOT recipients. Additional risk factors include leukopenia, delayed graft function, and prolonged ischemic time. Valganciclovir remains the first-line prophylactic agent, but its use may be limited by myelosuppression, occurring in approximately 55% of treated patients, and renal dose adjustment requirements. Letermovir, a terminase complex inhibitor FDA-approved for CMV prophylaxis in kidney transplant in 2023, offers a non-myelosuppressive alternative. However, real-world outcomes with evolving prophylaxis strategies remain limited. This study evaluates breakthrough CMV infection and prophylaxis outcomes in abdominal SOT recipients.

Methods

This single-center, retrospective, descriptive cohort study included adult patients at Methodist University Hospital undergoing kidney, pancreas, or liver transplantation who were discharged on CMV prophylaxis. Data were extracted from the electronic medical record between November 1, 2024, and December 31, 2025. Eligible patients were adult D+/R– recipients who completed six months of prophylaxis with valganciclovir or a valganciclovir-to-letermovir transition regimen

Results and Conclusion

Sixteen patients were included: 10 kidney and 6 liver recipients. The incidence of breakthrough CMV infection was 12.5% (2/16), with a median breakthrough of 70 days and a median viral load of 449 IU/mL. Both breakthrough cases (33.3%) occurred in liver transplant recipients receiving valganciclovir. Antiviral dosing was 100% appropriate across the entire cohort. The most prevalent adverse effects were anemia (88%) and leukopenia (62%). While no statistically significant association was found between the prophylaxis regimen and breakthrough events (p=0.125), these results indicate that standard protocols may still result in breakthrough infections and significant hematologic toxicity despite perfect dosing adherence.

Lenoir, Jaylan

Impact of Beta-Lactam and Vancomycin Administration Sequence on In-Hospital Mortality in Culture-Positive Sepsis

Lenoir, Jaylan; Powell, Meghan; Moore, Sarah Beth; Evans, Amy; Mabie, Kelsea
Baptist Memorial Hospital – Memphis; Memphis, TN

Background/Purpose

Sepsis remains a leading cause of morbidity and mortality worldwide. Early antibiotic administration has been repeatedly shown to improve patient outcomes. Empiric combination therapy, commonly with a β-lactam and vancomycin, provides broad-spectrum coverage against gram-negative and resistant gram-positive organisms. Due to differences in infusion time and antimicrobial spectrum, the sequence of administration may influence clinical outcomes. This study evaluated the association between antibiotic administration sequence and in-hospital mortality in adult patients with culture-positive sepsis.

Methods

This single-center, retrospective chart review compared antibiotics sequencing outcomes in adult patients admitted to Baptist Memorial Hospital – Memphis between July 1, 2023 and July 31, 2025 with confirmed sepsis via ICD-10 code, intensive care unit (ICU) admission within 24 hours of emergency department (ED) arrival, at least one positive blood culture, and receipt of both a β-lactam and vancomycin within six hours of ED arrival. Patients were excluded for intravenous (IV) antibiotics within the previous 30 days, pregnancy, immunocompromised status, transfers from outside hospitals, or concomitant antibiotic administration. The primary outcome was in-hospital mortality. Secondary outcomes included hospital length of stay (LOS), ICU LOS, and readmission.

Results

Power was not calculated due to the small sample size, and descriptive statistics were unutilized for results. Inclusion criteria were met by 44 patients, with 37 receiving a β-lactam first and 7 receiving vancomycin first. In-hospital mortality occurred in 32.4% of patients who received the β-lactam first compared to 14.3% in the vancomycin first group (p=0.93). Median hospital LOS was 8.7 versus 10.5 days (p=0.93), and median ICU LOS was 2.6 versus 1.3 days (p=0.58). 30-day readmission occurred in 21.6% versus 14.3% of patients, respectively (p=0.19). No outcomes reached statistical significance.

Conclusions

Neither antibiotic administration sequence was associated with a statistically significant difference in hospital LOS, ICU LOS, or 30-day readmission. Although mortality was numerically higher in patients who received a β-lactam first, the difference was not statistically significant. These findings suggest that antibiotic sequencing alone may not substantially influence outcomes. Results could be limited by small sample size. Larger studies with adjustments for illness severity and clinical confounders are needed to determine whether antibiotic sequencing independently influences clinical outcomes.

Lesley, David

Assessing Benzodiazepines and Antipsychotics for Agitation and Delirium in Non-Critically Ill Older Adults

Lesley, David[1,2], Cutshall, B Tate[1], Greer, Samuel C[1], Cummings, Carolyn[1], Hudson, Joanna[2]
Methodist Le Bonheur Healthcare, Memphis Tennessee[1]
University of Tennessee Health Science Center, Memphis Tennessee[2]

Background and Purpose

Delirium is a common neuropsychiatric disorder in hospitalized patients and can lead to longer hospital stays and higher risk of adverse outcomes in adults over 65 years of age. Current guidelines recommend avoiding routine use of antipsychotics (APs) and benzodiazepines (BZDs) for delirium management due to limited evidence of benefit and the potential for harm; however, these agents continue to be prescribed for this indication. Data evaluating the safety and efficacy of these medications in this population remains limited.

Methods

This retrospective chart review included adult patients age > 65 years admitted to Methodist University Hospital from October 2024 to August 2025 with an active diagnosis of delirium or agitation and no reported delirium or agitation prior to admission, hospital stay ≥ 48 hours and received new orders for APs with or without BZDs for agitation and/or delirium. Collected data included demographics, APs and BZDs prior to admission, medication orders during admission, escalation of care, resolution of agitation or delirium, and discharge disposition. The primary outcome evaluated differences in time to discharge between patients receiving APs alone versus APs with BZDs. Secondary outcomes evaluated were length of stay, average daily doses of APs and BZDs, escalation of care, discharge disposition, hospital mortality, and adverse effects.

Results

Of 409 patients screened, 125 were included, with 66 patients in the APs alone group and 59 in the APs with BZDs group. Median length of stay for patients receiving APs was 6 days vs 11 days for the APs with BZDs group (P = 0.085). A total of 48.7% of patients receiving APs alone were discharged home, compared with 51.3% of those receiving APs with BZDs (P = 0.074). Escalation of care occurred in 51.5% of APs alone patients vs 75.4% APs with BZDs patients (P = 0.008).

Conclusions

While length of stay did not differ between groups, the difference may still be clinically meaningful, and escalation of care occurred more in the APs with BZDs group. These data do not support the addition of BZDs in older adults for the management of agitation and delirium, but larger studies are needed to evaluate this area further.

Martin, Khalil

Assessing Critical Time-to-Treatment Endpoints with Alteplase versus Tenecteplase

Martin, Khalil, Guinn, Courtney, Wilson, Dylan
Jackson Madison County General Hospital, Jackson, Tennessee

Background and Purpose

The purpose of this study was to evaluate door-to-thrombolytic administration times before and after the transition from alteplase to tenecteplase, as well as secondary endpoints related to neurological improvement and safety.

Methods

This single-center, retrospective study included adults with acute ischemic stroke who received alteplase from January 1 through December 31, 2023 compared to adults who received tenecteplase from January 1 through December 31, 2025. Patients were excluded if they did not receive IV thrombolytic at this facility due to ineligibility or received thrombolytic at an outlying facility prior to arrival. The primary endpoint was door-to-IV thrombolytic administration time. Secondary outcomes included early neurological improvement, all-cause mortality, intracranial hemorrhage following thrombolytic administration, and discharge disposition. Additionally, we evaluated time to thrombolytic treatment with versus without pharmacist presence during thrombolytic preparation and administration.

Results

Will be described at the time of the presentation

Conclusion

Will be described at the time of the presentation

Mason, Olivia

Adjusting Serum Creatinine Rounding in Elderly Patients and its Impact on Vancomycin Trough Target Attainment

Mason, Olivia; Pridgen, Savannah; Brannon, John; Jantz, John
Highpoint Health Sumner with Ascension St. Thomas, Gallatin, TN

Background and Purpose

It is often observed that elderly patients have lower serum creatinine values, frequently because of lower muscle mass and decreased liver function. Current guidelines have conflicting recommendations surrounding whether to round serum creatinine values when dosing for these individuals. However, prior retrospective studies have suggested that rounding creatinine clearance in elderly patients is not evidence based and may contribute to underdosing of renally cleared medications, including vancomycin, in this population. The purpose of this study is to evaluate the removal of creatinine clearance rounding in patients 70 years or older at a suburban community hospital and its impact on vancomycin goal trough attainment.

Methods

This study is a retrospective chart review of inpatients from March 2025 to September 2025 who meet all the following criteria: 70 years or older, active vancomycin order while admitted, and serum creatinine of less than 1.0 mg/dL. Additionally, a prospective chart review was completed from September 2025 to February 2026 using the same inclusion criteria. The primary outcome is the percentage change in the incidence of therapeutic vancomycin troughs pre- and post-intervention. Secondary outcomes include the percentage change in vancomycin-associated adverse events including nephrotoxicity and incidence of Clostridium difficile, length of inpatient stay, 30-day rehospitalization rate, and 30-day mortality rate.

Results

Results were not completely analyzed at the time of this abstract's submission. However, preliminary results demonstrate a positive correlation between the primary intervention and vancomycin trough target attainment. In a comparison of vancomycin trough target attainment in the pre-intervention group (n=51), 29.41% of patients had a trough of less than 10, 23.53% had a trough of greater than 20, and 52.94% had a trough between 10 and 20. In the post-intervention group (n=39), 13.16% of patients had a trough of less than 10, 15.79% had a trough of greater than 10, and 71.05% had a trough between 10 and 20.

Conclusions

Preliminary findings show that there may be correlation between using an elderly patient's true serum creatinine value to calculate creatinine clearance and improved vancomycin trough target attainment.

McKinney, Abby

Survey Based Investigation of Pharmacist Perceptions of Diagnosing and Prescribing

McKinney, Abby[1, 2]; Fly, Hunter[1, 2]; Havrda, Dawn[2]; Hohmeier, Ken[2]
Le Bonheur Children's Hospital[1]; University of Tennessee Health Science Center[2]

Background and Purpose

Diagnosing and prescribing are the backbone of healthcare. Currently, pharmacists have state-specific prescribing authority. Many pharmacists participate in collaborative practice agreements (CPAs) with other healthcare providers. These agreements allow pharmacists to have some level of diagnosing and prescribing. In Tennessee, pharmacists can diagnose and prescribe for a multitude of conditions. The Accreditation Council of Pharmacy Education (ACPE) is the governing body responsible for the curriculum taught in many pharmacy schools. In 2025, ACPE released a statement, updating their standards to include diagnosing and prescribing. This change has been controversial in the world of medicine. The American Medical Association (AMA) released a statement in response to this change clearly stating their opposition. Still, very little is known about the perceptions of this change and its implementation in pharmacy practice. The purpose of this study is to describe the perceptions of practicing Tennessee pharmacists from a multitude of practice settings regarding the implementation of the new ACPE standards.

Methods

We utilized the Qualtrics Survey platform to create a survey that was distributed via the Tennessee Pharmacist Association (TPA) "10 for Tenn" newsletter, University of Tennessee Health Science Center Preceptor listserv, and the Le Bonheur Children's Hospital Pharmacist listserv. Open enrollment for participation was from January 15, 2026, to February 16, 2026. Inclusion criteria for participation included being a Tennessee licensed pharmacist, at least 21 years of age, and currently engaged in the practice of pharmacy.

Results

We had 111 complete surveys and a response rate of about 4%. Most participants were in the 31–40-year-old category, have practiced for 5-10 years, and graduated from a non-Tennessee institution. When asked about comfortability implementing diagnosing and prescribing, most felt comfortable but required stronger organizational support, trained staff, and compensated modules.

Conclusions

These findings highlight the perceptions of practicing Tennessee pharmacists on the teaching and implementation of diagnosing and prescribing in the practice of pharmacy.

Middleton, Matthew

Closing the Gap: Improving Implementation of Adherence Barrier Tools in Pediatric Acute Lymphoblastic Leukemia/Lymphoma Patients

Middleton, Matthew; Rees, Matthew; Barker, PJ; Bolden, Kyla; Crews, Kristine; Harris, Rachel; Harrison, Justis; Hoffman, James; Kaylanasundarum, Shankari; Rodriguez, Steven; Swanson, Hope; Nason, Tiffany; Hopp, Jaclyn
St. Jude Children's Research Hospital, Memphis, TN

Background and Purpose

Poor adherence to medications used in the treatment of acute lymphoblastic leukemia (ALL)/ lymphoblastic lymphoma (LLy) in children is associated with less favorable clinical outcomes. Specifically, suboptimal oral mercaptopurine adherence in pediatric ALL is associated with increased relapse risk. In pediatric ALL, <95% adherence was associated with a 2.5-fold relapse risk in Hispanic and non-Hispanic White children, while <90% adherence was associated with a 3.9-fold relapse risk in a multiracial cohort. Given the complexity of the medication regimen and risk of nonadherence, there is a significant opportunity to improve adherence rates through assessment of medication adherence questionnaires for patients treated in the leukemia clinic at St. Jude Children's Research Hospital.

Methods

This single-center quality improvement project implemented targeted plan–do–study–act (PDSA) cycles to improve the process of administering patient-assigned medication adherence barrier questionnaires from July 1, 2025 to January 31, 2026. Inclusion criteria included patients with a diagnosis of ALL/LLy, a completed patient appointment status, and a primary language of English or Spanish. The SMART aim was to increase the response rate for the adherence barrier questionnaire in the leukemia/lymphoma clinic from 25% to 75% during the study period. Secondary objectives were to describe the most common patient- and caregiver-reported adherence barriers, assess differences in adherence barrier responses across demographic and clinical groups, and design interventions targeting the top five reported adherence barriers.

Results

Following implementation of 13 PDSA cycles, mean medication adherence questionnaire completion percentage increased from 21% to 40%. Between July 1, 2025 and January 31, 2026, 143 medication adherence questionnaires were completed, including 121 caregiver and 22 patient responses. Secondary objectives are in progress.

Conclusions

These findings demonstrate progress toward implementing adaptable, standardized processes to optimize response rates across diverse patient groups. Interventions aligning with existing clinic workflows – such as pre-printed lists and EHR schedule visibility were the most successful in increasing questionnaire completion from 20% to 40%. In contrast, interventions requiring additional steps or patient-driven actions were less successful. The gap to the 75% goal highlights the need for automated, system-embedded processes rather than staff- or patient-dependent solutions.

Miller, Mark

Does hazardous medication dose rounding in a growing oncology program result in cost reduction?

Miller, Mark; Kail, Daniel; McGlaughlin, Brent
Regional One Health, Memphis, TN

Background and Purpose

Regional One Health has a growing oncology program that serves approximately 5,000 oncology patients annually across various practice settings. Rounding hazardous medications to the nearest vial size has been described in literature and supported by professional organizations, including the Hematology/Oncology Pharmacy Association (HOPA), as a strategy to reduce medication waste without compromising clinical outcomes. Currently, no formal dose rounding protocol exists for these medications at our institution. In the setting of escalating drug costs and national shortages, implementation of a standardized dose rounding protocol for hazardous medications has both resource and cost savings potential. The purpose of this study was to quantify potential cost savings associated with hazardous medication dose rounding.

Methods

This retrospective study reviewed all NIOSH table 1 and 2 intravenous hazardous medications dispensed from April 1, 2024 to September 30, 2025. Only single-dose vials were evaluated. Doses were assessed for eligibility to be rounded down to the nearest vial size within 10% of the ordered dose. Cost savings were calculated using wholesale acquisition cost (WAC) based on actual vial sizes. Cost savings were calculated based on the difference from actual versus predicated use with rounding as described above.

Results

A total of 1,810 doses were evaluated over the 18-month period. Of these, 173 doses (9.6%) met criteria for rounding down within 10% of the prescribed dose. Implementation of dose rounding for these doses would have resulted in a total drug cost savings of $53,821.18 over the study period. The agents contributing most significantly to cost savings were pemetrexed, paclitaxel protein-bound, and daunorubicin.

Conclusions

Application of a standardized hazardous medication dose rounding protocol at our institution represents a meaningful opportunity for cost savings without impacting patient care. These findings support development and implementation of a formal dose rounding protocol to promote responsible oncology stewardship and mitigate drug waste.

Miller, Mary

Post-Rapid Sequence Intubation Sedation Timing with Pharmacist Involvement in the Emergency Department of a Community Hospital

Mary Kate Miller, Jae Morton, Caleb Prow, Mythili Chunduru
TriStar Summit Medical Center, Hermitage, TN

Background and Purpose:

Rapid sequence intubation (RSI) is a high-risk intervention performed regularly in the emergency department (ED). Delays in post-intubation sedation can lead to awareness of paralysis and increased risk of patient harm. Community hospitals may face unique barriers that impact timely sedation. Pharmacist involvement during RSI has potential to improve selection of medication and reduce time to administration of medications. This study was conducted to evaluate whether pharmacist presence has an impact on time to post-RSI sedative administration. Secondary outcomes include length of stay and mortality. Additionally, the choice of paralytic and the impact that it has on post-RSI sedation selection were examined.

Methods:

This was a retrospective, single center chart review of adult patients who underwent RSI in the ED of a community hospital from January 1 to October 13, 2025. Exclusion criteria include cardiac arrest, cardiopulmonary resuscitation initiated at any time during the clinical encounter, absence of documentation indicating intubation, intubation performed at an outside facility, indication of surgery or procedure, or indication for chemical restraint. An initial dataset was generated through clinical pharmacy monitoring software using predefined criteria. Manual chart review of the electronic medical record was conducted for the collection of baseline characteristics, timing of intubation, timing and type of sedative administered, timing and type of paralytic administered, length of stay, time on mechanical ventilation, and indication of RSI. In the event of missing administration times, documentation of intubation start time by the respiratory therapist was used as a surrogate. Descriptive and comparative analyses were conducted to evaluate sedation timing with and without pharmacist presence.

Results:

Seventy-nine patients met inclusion criteria. There were 27 patients in the pharmacist present group and 52 in the pharmacist not present group. There were no differences in baseline characteristics except for age (70.3 vs 58.3, p=0.007). Time of administration of agents was approximately 8 minutes faster when a pharmacist was present (13.1 vs 21.5 min, p=0.11). Rocuronium was used in 70.4% of cases in the pharmacist present group, while succinylcholine was used in 50% of the pharmacist not present group.

Conclusion:

Administration of post-RSI sedation was found to be faster with a pharmacist present.

Miller, Mary Catherine

Assessing the Correlation of Perinatal Health and Incidence of Preterm Labor Rates in Pregnant Women with Hypertensive Disorders of Pregnancy in a Community Hospital

Miller, Mary Catherine – Author[1]; Crymes, Arianna – Co-Author[2]; Smith, Forrest – Co-Author[2]
[1]Unity Health – White County Medical Center, Searcy, AR; [2]Harding University College of Pharmacy, Searcy, AR

Background and Purpose

Maternal health and outcomes in the South are reportedly worse than nationwide statistics. The most recently published maternal mortality statistics from the Centers for Disease Control and Prevention are from 2022 and show 22.3 deaths per 100,000 live births in the United States. The most recent Arkansas Maternal Mortality Review Committee presented December 2023 for 2018-2020. The committee identifies pregnancy-associated deaths or deaths of women within 365 days at the end of pregnancy. The average maternal mortality for 2018-2020 was 38.3 deaths per 100,000 live births. Hypertensive disorders of pregnancy are one of the leading causes of maternal mortality. From 2017-2019, pregnancy-associated hypertension increased from 10.8% to 13.0%. This study aims to assess the outcomes of perinatal care and the use of antihypertensives in pregnant women with hypertensive disorders of pregnancy admitted as inpatients at Unity Health hospital in Searcy, AR.

Methods

This study is a single-centered, retrospective chart review of electronic medical records from January 1, 2025, to June 30, 2025. This retrospective chart review will identify patients in a rural community hospital who had an accurate diagnosis of hypertensive disorders of pregnancy. Primary outcomes will include preterm labor rates via induction or cesarean, newborn birth weight classification, 30-day readmission rates with preeclampsia, eclampsia or posteclampsia after birth. Secondary outcomes will include use of oral and IV antihypertensives, use of IV magnesium, and use of aspirin 81 mg. Statistical analysis will be conducted using chi square test.

Results

All results are pending and will be described at the time of the presentation.

Conclusion

Conclusions are contingent upon results obtained.

Moffett, Ashley

Short Versus Long Antibiotic Durations for Complicated Urinary Tract Infection in Renal Transplant Recipients

Moffett, Ashley; Calcote, Lelia; Wingler, Mary Joyce; Cretella, David
University of Mississippi Medical Center, Jackson, Mississippi

Background and Purpose

Complicated urinary tract infection (cUTI) is the most common infection affecting renal transplant recipients, but treatment duration is unclear. While there is adequate data to support shorter durations among immunocompetent patients with cUTIs, evidence regarding antibiotic duration in transplant recipients is limited. This study aims to evaluate the rate of treatment failure, recurrence, and associated complications. The purpose of this study is to assess the clinical outcomes of short versus long antibiotic durations for the treatment of cUTI in renal transplant recipients.

Methods

This retrospective observational study included adult renal transplant recipients diagnosed with a cUTI and received at least 5 days of antibiotics between January 1, 2017, and June 30, 2025. Exclusion criteria were multi-organ transplantation, renal abscess, or infections outside of the urinary tract. Patients were categorized in short duration (≤ 15 days) and long duration (>15 days) antibiotic therapy groups. The primary outcome was a composite endpoint of additional clinic or emergency room visits, hospital readmissions, or inpatient mortality within 30 days. Secondary outcomes included the individual components of the primary outcome, recurrence, acute rejection, and graft failure. Subgroup analyses were conducted among the short duration group and to compare the treatment failure rate in the presence of drug-resistance.

Results

A total of 154 patients were included, with 112 patients in the short duration group and 42 patients in the long duration group. Seven patients in the short duration group were diagnosed and treated as an outpatient. There was no significant difference in the rate of treatment failure between the short and long duration groups (15.2% vs 21.4%, $p = 0.356$). The rate of acute rejection and graft failure was similar between the two groups. In the subanalysis of the short duration group, treatment failure occurred in 5.0% (5-10 days) versus 20.8% (11-15 days) of patients ($p= 0.025$).

Conclusions

Short antibiotic durations were not associated with increased rates of treatment failure compared to long durations. Treatment failure was lower in the patients treated for 5-10 days compared with 11-15 days, suggesting the use of shorter durations for the treatment of cUTI in renal transplant recipients.

Moore, Braydon

Effects of Venous Thromboembolism Chemoprophylaxis Timing Around Drain Removal on Development of External Ventricular Drain Related Hemorrhages

Moore, Braydon; Tasaka, Chelsea; Beavers, Jennifer; Jaynes, Megan; Medvecz, Andrew; Kelly, Patrick; Vallejo, Frederic
Vanderbilt University Hospital, Nashville, Tennessee

Background and Purpose

Patients with elevated intracranial pressure often require placement of an external ventricular drain (EVD) for monitoring and management. Device-related hemorrhage is a serious complication; however, there is no guidance regarding timing of venous thromboembolism (VTE) chemoprophylaxis in relation to EVD removal. This study evaluated if the timing of VTE chemoprophylaxis prior to and after removal of an EVD impacts the incidence of device-related hemorrhage.

Methods

This was a single-center, retrospective study of patients admitted to a tertiary academic medical center between January 1, 2018, and July 31, 2025. Eligible patients were $\geq$ 18 years old with a single EVD placed during admission. Patients who received an anticoagulant other than subcutaneous heparin for chemoprophylaxis were excluded. Patients were categorized into early (<4 hours), intermediate (4-12 hours), and delayed (>12 hours) for timing of VTE chemoprophylaxis administration pre- and post-EVD removal. The primary outcome was incidence of device-related hemorrhage within 48 hours of EVD removal. A Fisher–Freeman–Halton exact test was used to assess the effects of chemoprophylaxis timing on developing a device-related hemorrhage. A logistic regression was then conducted to adjust for confounders.

Results

A total of 371 patients were included in the final analysis. There were 14 (3.8%) device-related hemorrhages after EVD removal. Of the patients that had a device-related hemorrhage, chemoprophylaxis administration prior to EVD removal was early, intermediate, and delayed for 3, 5, and 6 patients, respectively. Chemoprophylaxis administration after EVD removal was early, intermediate, and delayed for 7, 4, and 3 patients, respectively. There was no association between timing of chemoprophylaxis administration pre- or post-EVD removal and occurrence of device-related hemorrhages (p=0.33 and p=0.94, respectively). After adjustment for antiplatelet therapy and platelet nadir, timing of VTE chemoprophylaxis prior to and post EVD removal was not independently associated with developing a device-related hemorrhage.

Conclusions

The incidence of device-related hemorrhage was 3.8%. The timing of VTE chemoprophylaxis prior to and after removal of the EVD did not impact the incidence of device-related hemorrhage. Prospective randomized studies would be beneficial to further answer this study question.

Morris, Danielle

Impact of twice-daily dosing of insulin glargine-yfgn on glycemic outcomes in hospitalized, non-critically ill patients

Danielle Morris, B. Tate Cutshall, Haley Watson, Elizabeth Wolfe, Leia Wentzler-Lara, Drew A. Wells
Methodist University Hospital, Memphis, TN

Background and Purpose

Optimal glycemic control in hospitalized patients is associated with improved outcomes**,** including shorter hospitalizations, fewer surgical site infections, and reduced morbidity and mortality. In non-critically ill patients, basal-bolus insulin is recommended to target blood glucose (BG) levels of 100 – 180 mg/dL. Based on insulin glargine-yfgn's 24-hour duration, it is reasonable to consider a once or twice daily regimen without notable differences in glycemic control. The Endocrine Society, American Association of Clinical Endocrinology, and American Diabetes Association all address basal insulin dosing strategies for non-critically ill patients in their guidelines, but neither state the benefit of using once or twice daily basal insulin regimens.

Currently, there are no randomized control trials or systematic reviews favoring either dosing strategy, which has resulted in variability in clinical practice. This study evaluates the efficacy and safety of twice-daily insulin glargine-yfgn in non-critically ill, hospitalized patients with hyperglycemia.

Methods

This is a retrospective chart review of adult patients admitted to Methodist University Hospital from October 10th, 2024, until November 30th, 2025. Adult patients who received insulin glargine-yfgn for at least 48 hours during hospitalization were included. The primary outcome was percentage of BG checks-in-range (70-180 mg/dL). Notable secondary outcomes were percentage of hyperglycemia events, percentage of hypoglycemia events, and length of stay.

Results

A total of 124 patients met inclusion criteria with 62 patients in the twice daily insulin group and 62 patients in the once daily group. For the primary outcome, there was no difference in time within goal BG range between groups (46% [30-62] vs 53% [35-69], p=0.28). There was no difference in hyperglycemia (32 ± 20% vs 28 ± 20%, p=0.22) or hypoglycemia (1.4 ± 3.1% vs 1.5 ± 4.7%, p=0.06). There was no difference in length of stay between groups (8 [5-10] days vs 7 [5-9] days, p=0.41).

Conclusions

Administration of either once daily or twice daily insulin glargine-yfgn has no difference on glycemic outcomes in non-critically ill hospitalized patients. Either dosing strategy could be safely implemented in clinical practice without an increased risk of hypoglycemia. Larger studies are needed to further investigate the clinical benefit of twice daily basal insulin administration.

Mosley, Claire

Impact of Timing of Long-Acting Insulin Administration on Transition Outcomes in Diabetic Ketoacidosis

Mosley, Claire – Author; Wilson, Ashley – Co-Author; Mahon, Madeline - Co-author
UAMS Medical Center, Little Rock, AR

Background/Purpose

Diabetic ketoacidosis (DKA) is a life-threatening complication of diabetes requiring intensive management. A critical step in recovery is the transition from intravenous (IV) insulin to subcutaneous (SC) long-acting insulin, which ideally requires a one-to-two-hour overlap and coordination with oral nutrition to maintain glycemic stability. At UAMS, there is currently no standard protocol regarding the specific timing of this transition. Transitions often occur during overnight or early morning hours when hospital meal trays are unavailable, potentially leading to a mismatch between long-acting insulin action and glucose intake. This study evaluates whether the timing of long-acting insulin administration during DKA transition—overnight into early morning versus daytime—impacts the rate of transition failure, defined as the re-initiation of IV insulin.

Methods

This study is a single-center, retrospective chart review of adult patients (≥18 years) admitted to the intensive care unit at UAMS Medical Center with a primary diagnosis of DKA between July 1, 2023, and July 1, 2025. Patients are included if they are transitioned to SC long-acting insulin glargine. Patients are excluded if they are pregnant, require alternative insulin infusion protocols, or remained NPO throughout their admission. A convenience sample of up to 150 patients is included in our data analysis. Data collected from the electronic health record includes patient demographics, DKA laboratory markers (pH, bicarbonate, potassium, blood glucose, beta-hydroxybutyrate), insulin infusion duration, and the timing of insulin glargine administration relative to meal consumption. The primary outcome is the rate of transition failure, defined as the re-initiation of IV insulin

Results

Results to be described at the time of the presentation.

Conclusions

Conclusions to be described at the time of the presentation.

Moyer, Laura

Impact of Hemoglobin A1c on Rates of Adverse Drug Events in Veterans with Type 2 Diabetes Prescribed SGLT-2 Inhibitors

Moyer, Laura; Sidney Reeves; Sophie Levengood
Lt. Col. Luke Weathers, Jr. VA Medical Center, Memphis, TN

Background and Purpose:

The pharmacodynamic properties of sodium-glucose co-transporter 2 (SGLT2) inhibitors can lead to a number of adverse drug events (ADEs) which each have their own associated risk factors for development. A potential risk factor for these ADEs includes uncontrolled type 2 diabetes. This study was designed to evaluate the correlation between varying A1c levels and incidence of ADEs among patients with type 2 diabetes initiated on empagliflozin.

Methods:

This study is an observational, retrospective, cohort study conducted at the Lt. Col. Luke Weathers, Jr. VA Medical Center. A structured query analysis was performed for patients with an ICD-10 diagnosis code of type 2 diabetes that have been initiated on empagliflozin from January 2023 to March 2025. Patients were categorized into three groups based on A1c at time of empagliflozin initiation: A1c ≤ 8%, A1c >8% to <10%, and A1c ≥ 10%. Exclusion criteria includes a documented history of prior empagliflozin use, noncompliance, those who received <3 months of empagliflozin, those without A1c ≥3 months prior to initiation of empagliflozin, history of ESRD/kidney transplant, history of recurrent urinary tract infections, and patients with chronic foley placement. The primary endpoint was a composite outcome of the total incidence of ADEs within one year of empagliflozin initiation (i.e., genitourinary (GU) mycotic infections, urinary tract infections (UTIs), diabetic ketoacidosis (DKA), acute kidney injury (AKI), acidosis). Secondary endpoints include the incidence rate of each individual ADE, discontinuation rates of SGLT2 inhibitors, and time to ADE.

Results:

Composite ADEs occurred at low rates across all groups (6%, 3%, and 8% respectively). GU mycotic infections were most common, followed by acidosis. UTIs occurred in 1 patient with A1c <8%, and AKI occurred in 1 patient with A1c >10%. No DKA events were reported.

Conclusions:

ADE rates remained consistently low (3-8%) across all A1c categories, suggesting that ADEs with empagliflozin are low overall. A larger sample size may be able to detect more clinically significant findings.

Murff, Laney,

Linezolid vs. Clindamycin for Necrotizing Skin and Soft Tissue Infections

Authors: Laney Murff, Jade Flynn, Kelli Rumbaugh, Ben Ereshefsky
Vanderbilt University Medical Center, Nashville, TN

Background and Purpose

Necrotizing soft tissue infections (NSTIs) are life-threatening infections requiring early surgical debridement and antibiotic therapy. Historically, a combination of clindamycin, a beta-lactam, and vancomycin has been used empirically to reduce mortality in NSTIs. Due to declining clindamycin susceptibility, Vanderbilt University Hospital (VUH) changed it's NSTI protocol from vancomycin, clindamycin, and piperacillin/tazobactam to linezolid plus piperacillin/tazobactam in July 2023. The purpose of this study was to evaluate the efficacy of linezolid in combination with a beta-lactam antibiotic for the treatment of NSTI's compared to a clindamycin-based regimen.

Methods

This single-center retrospective study included adults (≥18 years) admitted to a surgical service with confirmed NSTI who received surgical intervention and at least one dose of linezolid or clindamycin. The primary outcome was a composite of source control within 72 hours, resolution of shock within 72 hours, and survival during admission. Secondary outcomes included time to source control, number of debridement's, antibiotic duration, duration of vasopressor utilization, incidence of Acute Kidney Injury (AKI) and *Clostridium difficile* infection. Categorical variables were analyzed with Chi-Square test and continuous variables were analyzed with Mann-Whitney U test.

Results

A total of 160 patients were included: 104 patients on clindamycin and 56 patients on linezolid. There was no difference in primary outcome between cohorts (clindamycin 26.9 vs linezolid 37.5%; p=0.166). There was also no difference in resolution of shock at 72 hours (71.2 vs 80.4%; p=0.203), source control at 72 hours (42.3 vs 42.9%; p=0.947), or survival during admission (86.5 vs 94.6%; P=0.113). Median number of debridement's was 3 in both groups (P=0.763). Days to source control (4.0 vs 4.0; p=0.870), total antibiotic days (12 vs 10.50; p=0.456), and total vasopressor days (2 vs 0.5; p=.088) were similar between groups. There was no difference in c.diff infections (n=1 vs n=0, p=0.46) or incidence of AKI (14.4 vs 19.6%; p=0.393)

Conclusions

Critically ill surgical patients with NSTI that were administered linezolid for toxin inhibition have similar outcomes as those given clindamycin. Linezolid may be considered as an alternative agent for treatment of NSTI, replacing both vancomycin and clindamycin.

Neese, Ashleigh

Evaluation of Edits Made to Initial Ambient Listening Artificial Intelligence Documentation Notes by Oncology Pharmacists

Neese, Ashleigh; Nelson, Scott; Hopkins, Nick; Butler, Taylor; Cass, Amanda; Gaffney, Keaton
Vanderbilt University Medical Center, Nashville, TN

Background and Purpose

Clinical pharmacists play an essential and expanding role in patient care but experience high rates of burnout, with documentation burden in the electronic health record (EHR) being a significant contributor. Ambient artificial intelligence (AI) tools, such as Dragon Ambient eXperience (DAX) Copilot, generate real-time clinical documentation by passively listening to patient encounters and identifying multiple speakers. Oncology pharmacists within the Vanderbilt Ingram Cancer Center (VICC) conduct complex patient counseling in both in-person and telehealth settings, making them well suited for ambient documentation tools. This study evaluates the types of edits made by oncology pharmacists to DAX Copilot–generated notes prior to final documentation.

Methods

This descriptive observational study was conducted within VICC clinics between July 2025 and March 2026. Oncology pharmacists used DAX Copilot to generate initial documentation drafts during pharmacist-led in-person and telehealth patient encounters. Encounters requiring clinical documentation were eligible for inclusion. AI-generated draft notes were compared with finalized pharmacist notes to identify and classify edits using document comparison tools. Edits were categorized by type and clinical theme, and a thematic analysis was performed to identify common modification patterns. Patient demographics and encounter characteristics were collected via chart review. Secondary outcomes included documentation quality assessed using the Physician Documentation Quality Instrument–9 (PDQI-9), and pharmacist burnout measured pre- and post-implementation using the Mini Z 2.0 Burnout Questionnaire.

Results

To be described at the time of presentation.

Conclusions

To be described at the time of presentation.

Nichols, Emily

Comparison of Continuous versus Intermittent Opioid Treatment in Managing Pediatric Vaso-Occlusive Crises

Nichols, Emily; Ostrenga, Andrew; Stuart, Lindsay[1]
University of Mississippi, Children's of Mississippi; Jackson, MS

Background and Purpose

Vaso-occlusive crises (VOC) account for 65% of hospitalizations in sickle cell disease and affect children's quality of life with impacts on physical, mental, and social wellbeing. Shortening the hospital length of stay could improve quality of life. In 2023, our institution implemented a change from utilizing patient-controlled analgesia (PCA) with continuous opioid treatment to PCA only. The purpose was to determine the opioid usage and efficacy of various opioid dosing strategies for inpatient management of VOC. The primary objective of this study was to evaluate length of stay for admissions with PCA only versus continuous with PCA. Secondary objectives included average daily opioid consumption between groups.

Methods

This was a retrospective, self-controlled cohort study that evaluated 29 patients hospitalized at Children's of Mississippi. The study group included children treated with PCA only from November 1, 2023, through May 31, 2024. These individuals were evaluated for prior admissions with a PCA with continuous during 2021 through 2022 and included in a separate cohort. Patients excluded from this study did not have a PCA with continuous prior to the implementation in 2023 and were younger than five years old.

Results

The average length of stay in the PCA only group was 4 days, and the average length of stay in the PCA with continuous group was 4.07 days ($p = 0.61$). The mean of daily patient-controlled doses was 20.5 in the PCA only group and 16.7 in the PCA with continuous ($p = 0.197$). Morphine milligram equivalents (MMEs) were higher in the PCA with continuous than the PCA only group (347.4 vs. 495.9, $p = 0.323$).

Conclusions

Intermittent opioid PCAs demonstrated no significant difference in length of stay when compared to continuous PCAs. Patients on continuous opioid PCAs were exposed to higher MMEs which could have a higher risk of adverse effects.

Nueva, Katrina

Assessment of Prescription Capture from an External Pediatric and Women's Hospital

Katrina Nueva; Ashley Sidebottom; Lindsay White; Ian Decareaux; Darryl Jones
Baptist Memorial Hospital – Memphis, TN

Background and Purpose

Baptist Memorial Hospital – Memphis (BMHCC) operates an outpatient pharmacy that processes prescriptions from an external pediatric and women's hospital. Plans have begun to open a dedicated pharmacy at the pediatric and women's hospital, which will impact the number of prescriptions captured at BMHCC's outpatient pharmacy. Prescription capture plays a role in not only continuity of care, but also workflow and financial stability of pharmacy operations. Assessing the impact of potential prescription volume changes may help identify operational and fiscal impacts of prescription capture once the new external pharmacy is operational.

Methods

This quality improvement study will analyze prescriptions sent from the external pediatric and women's hospital to BMHCC's outpatient pharmacy between October 1, 2024, and September 30, 2025. Inclusion criteria encompasses all prescriptions received from the external pediatric and women's hospital during the study period. Prescriptions sent from other pharmacies will be excluded. Data variables will include prescription details such as date received and fill status, operational metrics including monthly prescription volume, as well as estimated revenue per prescription. Descriptive statistics will be used to quantify prescription volume, types, and revenue trends. Qualitative analysis will assess operational impacts such as changes in workload or workflow inefficiencies. These findings will inform strategic planning and workflow optimization for Baptist Memorial Hospital – Memphis' outpatient pharmacy.

Results

Results will be described at the time of presentation.

Conclusion

Preliminary results of prescriptions received from the external pediatric and women's hospital presented an approximate 75% prescription fill rate. Unfilled prescriptions were frequently associated with non-preferred insurances, patient never picking up, or cancellations of orders. As data collection continues, further analysis will clarify how the opening of a dedicated pediatric and women's outpatient pharmacy may shift prescription volume, operational aspects, and revenue.

O'Kelley, Kayley

Evaluation of Clinical Outcomes and Protocol Compliance Following Implementation of Extended-Infusion Cefepime and Meropenem

O'Kelley, Kayley; Carter, Sonia
Jackson-Madison County General Hospital, Jackson, TN

Background and Purpose

Cefepime and meropenem are broad-spectrum β-lactam antibiotics commonly used for severe gram-negative infections. Because β-lactams exhibit time-dependent bactericidal activity, clinical efficacy correlates with the time above the minimum inhibitory concentration (MIC). Previous studies have demonstrated improved microbiologic outcomes, reduced ICU length of stay (LOS), and decreased mortality with extended-infusion β-lactams.
At Jackson-Madison County General Hospital, cefepime and meropenem were temporarily administered via intravenous (IV) push during fluid shortages. After restoration of IV fluid availability, an extended-infusion protocol was implemented in the intensive care units (ICUs). This study evaluated patient outcomes following implementation of this protocol.

Methods

This retrospective single-center study evaluated a sample of ICU patients ≥18 years of age who received cefepime or meropenem for suspected or confirmed gram-negative infections. A sample of patients who received at least one dose between November 19, 2024 and February 17, 2025 (pre-implementation IV push) or November 19, 2025 and February 17, 2026 (post-implementation 3-hour extended infusion) were included.
Patients receiving renal replacement therapy, with creatinine clearance <30 mL/min, without appropriate IV access, or who had contraindications to either medication were excluded. Data collected included demographics, renal function, microbiologic culture results, antimicrobial dosing and duration, and clinical outcomes. Outcomes evaluated included hospital LOS, ICU LOS, in-hospital mortality, 30-day readmission, escalation of antimicrobial therapy, and protocol compliance.

Results

A total of 135 patients were included (pre-implementation n=71; post-implementation n=64). ICU LOS was shorter in the pre-implementation group (6.35 vs 9.38 days, p=0.017). No significant differences were observed in hospital LOS (13.92 vs 16.88 days, p=0.120), escalation of antimicrobial therapy (8.5% vs 9.4%, p=0.851), in-hospital mortality (22.5% vs 21.9%, p=0.927), or 30-day readmission (18.3% vs 12.5%, p=0.075). Among patients with gram-negative cultures, no significant differences were observed. Compliance with the extended-infusion protocol, defined as pharmacist-driven conversion within 24 hours, was 85.9%.

Conclusions

Implementation of an extended-infusion cefepime and meropenem protocol did not improve clinical outcomes compared with IV push administration. Increased ICU LOS in the post-implementation group may reflect differences in patient severity or other confounders. Findings are limited by small sample size, lack of severity adjustment, and potential variability in infusion compliance.

Patel, Neil

Medication Sold Rates for Emergency Department Discharge Prescriptions at a Safety-Net Hospital

Patel, Neil[1]; Griner, Justin[1,2]; Veksler, Ben[1]; McGlaughlin, Brent[1]; Lord, Kito[1,3]; Fulwood, Austin[1]; Teixeira, Miranda[1,3]
[1] Regional One Health, Memphis, TN; [2] University of Tennessee Health Science Center College of Pharmacy, Department of Clinical Pharmacy and Translational Science, Memphis, TN:
[3] University of Tennessee Health Science Center College of Medicine, Department of Emergency Medicine, Memphis, TN

Background/Purpose

Studies have shown that between 7% and 35% of patients do not fill their prescribed medications after ED discharge. Among patients discharged from the emergency department (ED), one of the earliest barriers to adherence is failure to obtain a prescribed medication. Regional One Health (ROH), a safety-net hospital with an ED and an onsite outpatient pharmacy, serves a diverse patient population with potential barriers related to insurance status, medication cost, and access. Therefore, this study aims to evaluate the fill rate of ED discharge prescriptions and identify factors associated with prescription fill behavior.

Methods

This single-center retrospective study evaluated adults discharged from the ROH ED with at least one new outpatient prescription electronically sent to the ROH outpatient pharmacy. For this study, prescription fill rate is defined as the proportion of prescriptions that are both filled and picked up by the patient after being written by a provider. The prescribing dataset included prescriptions written from July 1, 2024, through July 31, 2025, with dispensing data extended through August 31, 2025, to capture delayed fills for prescriptions written at the end of the study period. Variables include insurance type, medication class, prescribing time and day, number of prescriptions, estimated medication cost, patient demographics, prescriber type, and fill status. Prescription fill rates were compared across groups to identify trends and barriers to medication access.

Results

Preliminary analysis included 11,007 ED discharge prescriptions. Overall, 5,783 prescriptions (52.5%) were filled and picked up, while 5,224 (47.5%) were not picked up. More than half of prescriptions (52.7%) were written after outpatient pharmacy hours, and 78.4% were written on weekdays. Differences in fill behavior were observed across insurance categories. Prescribers were categorized as midlevel, resident, or attending. These findings suggest that both patient-level and operational factors may contribute to medication nonfill after ED discharge.

Conclusions

In this preliminary single-center analysis, nearly half of ED discharge prescriptions sent to the ROH outpatient pharmacy were not filled and picked up, which is lower than previously reported rates in the literature. After-hour prescribing may represent an important operational barrier to timely medication access and area for future interventions.

Patel, Shreya

Glycemic Monitoring in Sickle Cell Disease: A Comparative Analysis of CGM, HbA1c, and Fructosamine

Patel, Shreya[1], Ogu, Ugochi[2], Armstrong, Drew[1], Weber, Brian[3]
[1]Regional One Health, Department of Pharmacy, Memphis, TN; [2]University of Tennessee Health Science Center, Division of Medical Hematology and Oncology, Memphis, TN;
[3]Christ Community Health Services, Memphis, TN

Background and Purpose

The true prevalence of diabetes in sickle cell disease (SCD) remains uncertain due to the unreliability of traditional glycemic markers in this population. Hemoglobin A1c (HbA1c), the standard glycemic assessment tool, is unreliable in SCD because hemoglobin variants such as HbS interfere with measurement accuracy. The American Diabetes Association recommends alternative monitoring methods for hemoglobinopathies, including continuous glucose monitoring (CGM) and fructosamine; however, fructosamine's reliability in SCD remains debated. CGM technology offers a promising alternative by providing comprehensive assessment of glycemic trends, variability, and metrics such as the Glucose Management Indicator (GMI). The purpose of this study is to perform a comparative analysis of CGM-derived metrics, HbA1c, and fructosamine in patients with SCD to determine the most reliable and accurate measure of glycemic control in this population.

Methods

We conducted a prospective, single-center observational study at the Diggs-Kraus Sickle Cell Clinic at Regional One Health. We enrolled participants between April 2025 and February 2026. We excluded patients who were pregnant, incarcerated, had an acute sickle cell crisis or hospitalization within 30 days, had received a blood transfusion within 30 days, or required a transfusion during the study. We scheduled study visits at baseline, two weeks, and four weeks. At each visit, we collected blood samples to measure HbA1c and fructosamine. Participants wore an unblinded CGM (Dexcom G7) following each visit to collect each patient’s GMI. We chose a sample size of 30 participants to achieve 70–80% power to detect differences in reproducibility and correlations among biomarkers. We assessed reproducibility of HbA1c, fructosamine, and CGM-derived metrics using intraclass correlation coefficients, coefficients of variation, and Bland-Altman analysis across study visits. We evaluated agreement between biomarkers with Spearman’s rank correlation and Deming regression. We compared correlations between each glycemic biomarker and mean glucose using Steiger’s Z-test.

Results

A total of 23 patients have been enrolled to date. The average patient is a 43-year-old black male. 19 patients completed the 1st study follow up visit and 15 patients completed the 2nd study follow up visit.

Additional results as described above will be presented.

Conclusions

Conclusion to be described.

Pell, Sydney

Epidemiology of Postoperative Infections at Unity Health - White County Medical Center

Pell, Sydney - Author[1]; Neal, Lincoln - Co-Author[2]; Turner, Shawn - Co-Author[2]; Smith, Forrest - Co-Author[2]
[1]Unity Health - White County Medical Center, Searcy, AR; [2]Harding University College of Pharmacy, Searcy, AR

Background and Purpose:

Unity Health - White County Medical Center has had an increased rate of postoperative infections within recent years. Surgical site infections are a significant contributing factor to postoperative morbidity and mortality rates, as well as being the primary source of nosocomial infections in patients who have had surgical procedures (NIH, 2024). The purpose of this study is to trend contributing factors to postoperative infections and to determine improvements that could be implemented in the future to help decrease the amount of postoperative infections at Unity Health.

Methods:

This retrospective chart review of electronic medical records from July 1, 2023 to July 31, 2025 will identify patients who have had a postoperative infection after having surgery at Unity Health - White County Medical Center. Patients will be included in the study if they are 18 years or older, if they had a postoperative infection after having a surgical procedure at Unity Health, if they had a readmission within 30 days of their surgery or within 1 year of implantation, and if they had a postoperative infection after a cesarean section. Patients will be excluded if they had a postoperative infection after having a surgical procedure at another hospital, if they had a readmission greater than 30 days after surgery or greater than 1 year after implantation, if they were pregnant and did not have a postoperative infection after a cesarean section, and if they are less than 18 years old. The primary outcome is to describe and determine the epidemiology of postoperative infections in abdominal surgeries. The secondary outcome is to describe and determine the epidemiology of postoperative infections in surgical procedures other than abdominal surgeries. The results of this research will identify potential improvements that could be implemented in the future to help decrease the amount of postoperative infections at Unity Health.

Results:

Results will be submitted within final slides.

Conclusion:

Conclusion will be submitted within final slides.

Phillips, Auston

Emergency Analgesia in Sickle Cell Disease: A Retrospective Study of Multimodal Versus Opioid-Based Therapy

Phillips, Auston G.[1], Farrar, Julie E.[1], Griner, Justin D.[1], Hilty, Paula H.[1], Walker, James R.[2]
[1]Regional One Health, Department of Pharmacy, Memphis, TN
[2]University of Tennessee Health Science Center, College of Medicine, Emergency Medicine, Memphis, TN

Purpose

Sickle cell disease (SCD) is a blood disorder characterized by frequent and painful vaso-occlusive crises (VOCs), which are a leading cause of emergency department (ED) visits in affected patients. Traditionally, opioids are first-line treatment for VOCs due to their rapid onset and potency. However, concerns over dependence, side effects, and the broader opioid epidemic have prompted the research of alternative pain management strategies. This study aims to evaluate the effectiveness and outcomes of multi-modal pain control versus opioid monotherapy in sickle cell patients presenting to the ED, with the goal of supporting safer and more efficient acute pain management.

Methods

This single-center, retrospective cohort study evaluated adult patients presenting to the Regional One Health emergency department with vaso-occlusive crisis between December 31, 2023, and June 30, 2025. Patients were grouped based on receipt of either an opioid-only analgesic regimen or a multimodal pain management regimen during their emergency department course. Outcomes assessed included hospital admission rates, mean pain scores during the emergency department stay, and the incidence of adverse events, with a focus on events requiring acute intervention.

Results

Results to be described.

Conclusions

Conclusions to be described.

Powell, Jenae

Adverse Effect Rates Based on Filgrastim Start Date in Multiple Myeloma

Powell, Jenae - Author; McVinney, Ian - Co-Author[1]
University of Arkansas for Medical Sciences Medical Center, Little Rock, AR

Background and Purpose

Filgrastim is a granulocyte colony stimulating factor (G-CSF) routinely used to support patients with multiple myeloma (MM) following myelosuppressive chemotherapy to accelerate neutrophil production and mitigate neutropenia. While National Comprehensive Cancer Network guidelines recommend initiating filgrastim 1-4 days after chemotherapy for febrile neutropenia prophylaxis, there is a lack of consensus regarding the optimal schedule for filgrastim following autologous stem cell transplant (ASCT) or induction chemotherapy. Previous research regarding the timing of initiation has yielded mixed conclusions, with some studies suggesting early initiation (Day +1) improves engraftment times, while others find delayed, neutropenia-guided strategies to be cost-effective with similar clinical outcomes. The purpose of this study is to evaluate the effect of early versus late initiation of filgrastim support on the rates of adverse effects in patients with MM.

Methods

This study was a single-center, retrospective chart review of adult patients diagnosed with MM who received filgrastim as part of their treatment regimen between January 2023 and December 2024. Patients were included if they were 18 years or older and received either melphalan-based ASCT or VDT-PACE chemotherapy. Patients were excluded if they utilized plerixafor or received treatment in an outpatient setting. The study population was stratified based on the timing of filgrastim initiation: early (Day 1-7 after chemotherapy) or late (Day > 7 after chemotherapy). The primary outcome was a composite measure of adverse effects, defined as febrile neutropenia, mucositis, nausea, vomiting, and diarrhea. Secondary objectives included the assessment of each of the above adverse effects individually, G-CSF side effects (bone pain), length of hospital stay, and time to neutrophil engraftment.

Results

Results to be described.

Conclusions

Conclusions to be described.

Pray, Christina

Short (<24 hours) vs. Prolonged (≥ 24 hours) Course of Intravenous Methylprednisolone in Acute Exacerbation of Chronic Obstructive Pulmonary Disease

Pray, Christina; Wells, Drew; Clark, Kacie; Sakaan, Sami
Methodist University Hospital, Memphis, TN

Background and Purpose

Acute exacerbations of chronic obstructive pulmonary disease (AECOPD) are episodes of worsening dyspnea, cough, or sputum production that exceed normal daily variation. Systemic corticosteroids remain a central component of treatment, supported by evidence showing improved lung function and reduced treatment failure. Intravenous methylprednisolone (IVMP) is frequently used in hospitalized patients despite guidelines favoring oral therapy and studies demonstrating no worse outcomes. This study aims to evaluate outcomes associated with short versus prolonged IVMP use in hospitalized patients with AECOPD, addressing uncertainty around optimal treatment duration and the potential risks linked to extended corticosteroid exposure.

Methods

This was a single-center, retrospective chart review of all adult patients admitted to Methodist University Hospital with AECOPD from October 4, 2024, to November 15, 2025. Patients were divided into two separate groups: those who received IV methylprednisolone for < 24 hours and those who received IV methylprednisolone for ≥ 24 hours. Groups were evaluated for the primary outcome of time to return to baseline oxygen requirements.

Results

Of 254 screened patients, 235 met inclusion criteria. Baseline characteristics were comparable between groups, though more patients in the prolonged IVMP arm were on baseline oxygen at admission (52% vs. 43.1%) and were active smokers (65.3% vs. 55.5%). The short IVMP group (n=137) received a median cumulate steroid dose of 196.3 mg during hospitalization. The prolonged IVMP group (n=98) received 398.8 mg, $p < 0.001$. The median time to baseline O_2 was shorter in the short IVMP group compared to the prolonged IVMP group (9.4 hours vs. 22.1 hours), p=0.008. Median length of stay was shorter in the short IVMP group compared to the prolonged IVMP group (2 days vs. 3 days), $p<0.001$. The average 30-day re-admission rate was higher in the short IVMP compared to the prolonged IVMP group (37.2% vs. 24.7%), p=0.044. On average, the number of patients that required escalated steroid therapy was less in the short IVMP group compared to the prolonged IVMP group (5% vs. 18.4%), p=0.001.

Conclusions

In patients hospitalized with AECOPD, shorter IVMP courses were associated with significantly faster return to baseline oxygen needs, shorter length of stay, and decreased need for escalated steroid therapy. However, there were less re-admissions in the prolonged IVMP group.

Pugh, Mary Tristiana

Characterizing Clinical Pharmacy-Performed Medication Reconciliation as Part of Integrated Medication-Assisted Treatment Visits

Tristiana Pugh, PharmD, MPH[1]; Sara Jones, PharmD, BCACP[1]; Forrest L. Smith, PhD[2]; Elizabeth Underwood, PharmD, BCPS[1]

BACKGROUND AND PURPOSE

Substance use disorder (SUD) is a chronic condition frequently accompanied by medical and psychiatric comorbidities, leading to complex medication regimens and increased risk of adverse drug events. Medication-Assisted Treatment (MAT) is effective but requires coordinated medication management for optimal outcomes. Medication reconciliation is a key safety strategy, yet its implementation in MAT clinics, particularly by clinical pharmacists within interdisciplinary teams, remains underexplored. Existing literature supports pharmacist-led reconciliation in other settings but not specifically during MAT visits or in Federally Qualified Health Centers (FQHCs). This study aims to identify medication discrepancies, describe pharmacist interventions, and evaluate pharmacy integration in SUD care.

METHODS

This retrospective cohort study utilizes electronic health record data between May 2022 and July 2025. Inclusion criteria for this study were adult patients (≥18 years) who completed at least one in-person MAT visit with a clinical pharmacist performing documented medication reconciliation. Data extracted includes demographics, substance use diagnoses, psychiatric and medical comorbidities, prescribed MAT therapies, and the number and type of medications reconciled. Pharmacist interventions will be categorized. The primary outcome is the number and classification of medication discrepancies identified by the pharmacist. Secondary outcomes include the number and types of pharmacist interventions, and any follow-up actions documented by the healthcare team.

RESULTS

While data collection is ongoing, a total of 348 patients were screened, of whom 343 were included in the analysis. The majority of patients were female (60%) and White (90%), with a mean age primarily between 25 and 64 years (88%). Regarding medication burden, 41% of patients were taking more than 10 medications, while 39% were taking between 5 and 9 medications. Co-existing psychiatric conditions were common, with anxiety (69%) and depression (65%) being the most prevalent. Additionally, 69% of patients had at least one comorbid medical condition, most commonly cardiovascular disease (48%) and pain-related conditions (24%). During MAT visits, the most common SUD therapies documented were buprenorphine/naloxone (61.2%), followed by buprenorphine (16%), while 15.2% of patients were not receiving MAT pharmacotherapy.

CONCLUSION

Preliminary results suggest that integrating clinical pharmacy-performed medication reconciliation into MAT visits may enhance patient safety and optimize medication management.

Rana, Priya

Evaluation of Total Antibiotic Duration for Inpatient UTI Management and Post-Discharge Therapy at St. Vincent Infirmary

Rana, Priya; Galiano, Amanda
Institution: CHI St. Vincent Infirmary, Little Rock, AR

Background and Purpose

Urinary tract infections (UTIs) are among the most common infections encountered in both inpatient and outpatient settings and are major drivers of antibiotic prescribing in hospitals. National guidelines, including those from the Infectious Diseases Society of America (IDSA), recommend shorter, targeted durations of therapy based on infection type and severity. Despite these recommendations, prolonged antibiotic therapy is still frequently prescribed in practice, particularly during transitions of care. Excessive antibiotic durations increase the risk of adverse drug events, including *Clostridioides difficile* infection, and contribute to antimicrobial resistance. Because UTIs account for a large proportion of antibiotic use, optimizing treatment duration is an important target for antimicrobial stewardship. This study aims to evaluate institutional prescribing practices at CHI St. Vincent Infirmary (SVI) to determine adherence to current guideline-recommended durations.

Methods

This retrospective chart review included 200 adult inpatients treated for UTIs at a 600 bed, faith-based, not for profit hospital from January 1, 2024 to June 30, 2025. Patients ≥18 years with uncomplicated cystitis, complicated UTI, CAUTI, or pyelonephritis receiving ≥1 systemic antibiotic were included. Exclusions were urosepsis, bacteremia, concurrent infections requiring prolonged antibiotics, pregnancy, in-hospital death, incomplete records, or chronic suppressive therapy. Data collected included demographics, infection type, inpatient and discharge antibiotics, and total duration. The primary endpoint, proportion of guideline-appropriate total antibiotic duration, was assessed with an exact binomial test. The secondary endpoint, related 90-day readmission, was evaluated using a Pearson's chi-square test.

Results

Preliminary results show that among 161 patients with urinary tract infections, 128 (79.5%) had a combined inpatient and post-discharge antibiotic duration that was guideline-appropriate. This proportion was significantly greater than 50% based on an exact binomial test ($p < 0.001$; 95% CI 73.6%–100%). Rates of 90-day related readmission were not significantly different between patients who received guideline-appropriate antibiotic durations and those who did not ($\chi^2(1) = 0.025$, $p = 0.873$).

Conclusion

Most patients with urinary tract infections received guideline-concordant total antibiotic durations across inpatient and post-discharge therapy.

Rawls, Traylor

Incidence of Hypotension with Ketamine versus Etomidate in Rapid Sequence Intubation

Rawls, Traylor - Author[1]; Bailey II, Daniel - Co-Author[2]; Smith, Forrest - Co-Author[2]; Grant, Devahn – Co-Author[2]
[1]Unity Health – White County Medical Center, Searcy, AR; [2]Harding University College of Pharmacy, Searcy, AR

Background and Purpose

Rapid Sequence Intubation (RSI) is an essential procedure performed in emergencies and critical care settings to secure the airway. Ketamine and etomidate are two of the most used induction agents, but both have differing hemodynamic profiles that may influence the risk of post-intubation hypotension. A ketamine-based RSI protocol was recently implemented at Unity Health; however, institution-specific data comparing the incidence of post-induction hypotension between ketamine and other induction agents remain limited. This study aims to compare the incidence of hypotension in patients who received ketamine versus etomidate during RSI at Unity Health facilities (Main Campus, Jacksonville, and Newport).

Methods

A retrospective chart review included patients who underwent RSI with either ketamine or etomidate between January 1st, 2024, to June 30th, 2025, identified through Meditech electronic health record system within the Unity Health facilities. The primary outcome is the incidence of hypotension between ketamine and etomidate. Secondary outcomes include the need for vasopressors within 24 hours after intubation; duration from intubation to extubation and provider selection trends.

Results

All results are pending and will be described at the time of the presentation.

Conclusion

Conclusions are contingent upon results obtained.

Ridgeway, Kacy

Evaluation of Pharmacist Impact on Hemoglobin A1c in a Rural Mid-South Ambulatory Setting

Ridgeway, Kacy; Smith, Terry; Martin, Teaka; Needham, Amanda
Christus Health – Pine Street Texarkana, TX

Background and Purpose

Last November, a new ambulatory pharmacist began at our site who is managing our outpatient diabetic population. Current studies show that pharmacist interventions improve HbA1c and bridge the knowledge gap between physicians and patients. However, these studies do not include southern patient populations. The purpose of this study is to determine how the implementation of pharmacist-led education and medication management affect HbA1c when comparing pre- and post-implementation in rural Mid-South patients with diabetes.

Methods

The objective of this study is to determine the effect of pharmacist interventions and education on HbA1c in a rural Mid-South clinic and evaluate patient compliance to receiving and taking guideline directed medication therapy. This is a retrospective cohort study by chart review up to 12 months prior to pharmacist implementation and 3 months post pharmacist implementation. Criteria for inclusion are individuals 18 years of age or older diagnosed with diabetes that have a pre and post HbA1c. Exclusion criteria includes patients less than 18 years old without a HbA1c within the previous 12 months and patients lost to follow up. The primary endpoint will analyze pre vs. post HbA1c following implementation of pharmacist-led education and medication management. Secondary outcomes will measure patient compliance to taking medication and being prescribed guideline directed therapy, HBA1c at goal pre vs. post implementation, and self-reported hypoglycemia. Data will be collected through Epic chart review, medication refill history through Epic refill history and pharmacies, and self-reported hypoglycemia. Statistical analysis for the primary endpoint will be measured with a paired t-test. For secondary endpoints, descriptive statistics will analyze patient compliance, a two-tailed t-test for HbA1c at goal pre vs. post, and chi-square test to analyze self-reported hypoglycemia.

Results

Results are preliminary and final results will be described at the time of presentation. Of the preliminary results, 32 Individuals met criteria for inclusion with an average age of 57 and HbA1c of 9.55%. Majority of participants are female (65%), 50% of individuals are white, 47% black, 3% Asian, and 100% of patients had type 2 diabetes mellitus (T2DM).

Roe, Anderson

A retrospective analysis on cisatracurium continuous infusion use for the treatment of acute respiratory distress syndrome in critically ill patients

Roe, Anderson[1], Savage, R. Wesley[1], Hill, David[1], Lanfranco Molina, Julio[2]
[1]Regional One Health, Memphis, Tennessee
[2]University of Tennessee Health Science Center, Memphis, Tennessee

Background

Acute respiratory distress syndrome (ARDS) is an acute inflammatory lung injury with a mortality rate of 40-60%. Current guidelines state neuromuscular blockers should be used to reduce patient-ventilator de-synchrony, however prolonged use of neuromuscular blockers has adverse outcomes, including increased risk of mortality. Two large multicenter trials, ACURASYS and ROSE, found differing results when looking at mortality reductions in patients receiving neuromuscular blockers for moderate-severe ARDS. The main difference between ACURASYS and ROSE lies in the level of sedation used. Deeper sedation was acceptable for all patients at the time ACURASYS was studied, but modern standard of care favors light sedation. ROSE introduced a new comparison of deep versus light sedation that was not present in ACURASYS. Both trials discontinued cisatracurium at 48 hours; however, many patients continue treatment past this time period. There is a gap in the literature regarding prolonged use of neuromuscular blockers in patients with ARDS. The goal of this study is to evaluate the outcomes of prolonged cisatracurium use in ARDS, looking at incidence of mortality and adherence to guideline-directed therapies for the treatment of ARDS, in addition to evaluating outcomes of patients with differing levels of sedation.

Methodology

This is a single-center, retrospective study of adult patients admitted to Regional One Health medicine Intensive Care Unit between 1/1/2019 and 7/31/2025 meeting criteria for moderate-severe ARDS not previously initiated on a cisatracurium continuous infusion. Patients were excluded if they tested positive for SARS-COV-2, were pregnant, or less than 18 years old.

Results

The final sample included 35 patients. There were no significant differences in demographics, comorbidities, or SAPS-2 scores ($p= 0.322$). There was no difference in mortality in the group that received ciastricurium for longer than 48 hours compared 48 hours or less ($p= 1.0$). Those in the longer than 48-hour group received significantly more fentanyl and midazolam compared to the control group ($p= 0.01$ and $p= 0.006$, respectively).

Conclusion

Use of cisatricurium for longer than 48 hours did not increase overall mortality compared to 48 hours or less. When combined with guideline-directed therapies, cisatracurium offered no additional mortality benefit.

Rotenberry, Mitchell

Comparison of Early vs. Late Steroid Initiation and its Impact on In-Hospital Mortality in Septic Shock Patients

Rotenberry, Mitchell; Sims, McKenzie; Root, Cheyenne; Jansen, Katie; Null, Cody
Department of Pharmacy, Baptist Health Medical Center, Little Rock, AR

Background and Purpose

Sepsis is defined as life threatening organ dysfunction caused by a dysregulated host response to infection which can progress to septic shock. Current guidelines recommend the use of antibiotics, fluid resuscitation, and vasopressors for the treatment of septic shock. The Surviving Sepsis Campaign suggests using intravenous corticosteroids in patients with ongoing vasopressor requirements to improve cardiovascular function. While corticosteroids have been shown to decrease the time to shock resolution, the optimal dose, duration, and timing of initiation remains uncertain.

Methods

This is a retrospective chart review utilizing the electronic medical record for all patients with septic shock who received IV corticosteroids at Baptist Health Medical Center - Little Rock between January 1, 2024 and December 31, 2024. The primary objective is to assess the difference of in-hospital mortality between early (≤24 hours) and late (>24 hours) initiation of corticosteroids in septic shock. Secondary objectives include comparing time to shock resolution, intensive care unit (ICU) length of stay (LOS), and hospital LOS. Data was analyzed using Fisher's Exact Test, unpaired t-test, or Mann Whitney U tests.

Results

A total of 526 patients were screened for inclusion with a final study population of 54. Of these patients, 31 (57.4%) received early IV corticosteroids and 23 (42.6%) received late steroids. The average age of all patients was 64 years old, and overall baseline characteristics were similar between groups. The primary endpoint of in-hospital mortality occurred in 9 (39.1%) patients in the early group, and in 9 (29.0%) patients in the late group (p=0.561). The secondary endpoints of time to shock resolution (4[2.1 - 6.4] vs 8[5.9-11.3], p=0.001), ICU length of stay (5[3.5-8] vs 9[7-15], p=0.001), and hospital length of stay (10[6.5-19] vs 16[11.5-23], p=0.044) all showed statistical significance.

Conclusions

While the early use of IV corticosteroids did not show a significant difference in the rate of in-hospital mortality, their use did show a shorter ICU LOS, hospital LOS, and resolution of shock, indicating a better overall hospital course.

Rubenstein, Isabella

Evaluation of Cardiovascular Outcomes Between Semaglutide 1mg and 2mg in Veterans with Type 2 Diabetes

Rubenstein, Isabella; Merkel, Joseph; Latendresse, Erin; Binkowski, Riley
Lt. Col. Luke Weathers Jr. Veterans Affairs (VA) Medical Center, Memphis, TN

Background and Purpose

Despite the growing use of semaglutide for the treatment of type 2 diabetes mellitus (T2DM), there is a lack of evidence evaluating cardiovascular outcomes between the 1mg and 2mg doses in diabetic patients with established cardiovascular disease (CVD). A study exploring the incidence of atherosclerotic cardiovascular disease (ASCVD) events in high-risk populations such as US Veterans with T2DM is critical. The purpose of this study is to determine if increasing semaglutide to 2mg results in additional reduction in ASCVD events. This knowledge will help determine if semaglutide should be escalated to 2mg dose regardless of HbA1c control to further reduce the risk of cardiovascular events.

Methods

This is an Institutional Review Board-approved, retrospective, observational, multicenter study of patients receiving care from the VA Midsouth Healthcare Network from March 2022 through July 2025. Patients were enrolled if they were at least 18 years old, diagnosed with T2DM and receiving semaglutide 1mg or 2mg subcutaneously weekly for at least one year, and had established CVD. Patients were excluded if they were followed exclusively by cardiology in the community or if noncompliant to semaglutide. Data collected included ASCVD events prior to starting the target dose of semaglutide, weight and A1c at baseline, 12 months, and 24 months, prior ASCVD events, smoking history, concurrent medications with established cardiovascular benefits and the diabetic regimen prescribed at baseline, 12 months, and 24 months. The primary outcome of this study is comparing the first occurrence of an ASCVD event at 12 months after target dose is achieved between the two groups.

Results

Preliminary results included # patients in the 1mg group and # in the 2mg group. Average age was #. Majority of patients were white, male, and have a history of smoking. Coronary artery disease was the most common baseline ASCVD event, and all patients were on concurrent medications with cardiovascular benefits and other diabetic medications during the study. Five patients experienced an ASCVD event at either 12 or 24 months in the 1mg group and one patients experienced an event in the 2mg group. Data collection is ongoing.

Conclusions

Conclusions are pending completion of data collection and analysis.

Ruiz, Carmela

Evaluation of Emergency Department Antibiotic Ordering in Patients Meeting Systemic Inflammatory Response Syndrome Criteria Without Suspected Bacterial Infection

Authors: Mitchell, Anna, Pharm.D., BCPS; Keller, Jarrod Pharm.D., BCPS, BCGP; Ruiz, Carmela, Pharm.D.
Institution: Lt. Col. Luke Weathers, Jr. (Memphis) Veterans Affairs Medical Center (VAMC), Memphis, TN

Background and Purpose

Sepsis is defined as a life-threatening syndrome caused by a host's dysregulated response to infection which leads to organ dysfunction and carries a high mortality risk if not identified and treated promptly. The Severe Sepsis and Septic Shock Management Bundle Measure (SEP-1) was developed in 2015 to standardize the definition and treatment goals, and to reduce sepsis-related complications and mortality.[1]

SEP-1 defines sepsis as having at least 2 Systemic Inflammatory Response Syndrome (SIRS) criteria with a known or suspected source of infection.[1] SEP-1 has been implemented by many healthcare systems; however, our understanding of sepsis has evolved since its widespread adoption. Both The Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3) and the 2021 Surviving Sepsis Campaign suggest different screening tools, yet both acknowledge the complexity of diagnosis. [2,3] Nevertheless, all current treatment guidelines highlight a reduction in mortality with timely antibiotic administration.

Despite the evolution of our understating of sepsis and its identification, diagnosis remains challenging. While SEP-1 promotes identification standardization, pressure to meet this measure may lead to widespread and potentially inappropriate antibiotic administration, increasing the risk of adverse events.

The primary objective of this study is to quantify the amount of antibiotics ordered in the emergency department (ED) for patients meeting SIRS criteria without a known or suspected infection source.

Methods

This is an Institutional Review Board approved, retrospective, observational, cohort study of patients treated within the Memphis VAMC from January 1st, 2023, to July 1st, 2025. Adult patients meeting SIRS criteria without a known source of infection will be enrolled, then categorized based on antibiotic administration within 3 hours of meeting SIRS criteria. Exclusion criteria include patients with a suspected or known source of infection and patients treated for chronic obstructive pulmonary disease exacerbations. Data collected via chart review will include demographics, vital signs, antibiotics administered, and associated hospitalizations. Secondary outcomes of patients requiring inpatient admission will be performed to determine the 48-hour infection rate, antibiotic duration and associated cost, and adverse drug events within 30 days. IBM SPSS Statistics will be used to perform statistical analysis.

Results

Data collection is ongoing.

Conclusion

Data collection is ongoing.

Shaver, Jacob

Impact of Adjunctive Ketamine on Opioid Utilization in Trauma Patients

Shaver, Jacob; Graham, Tanith; and Herrmann, Brennan
The University of Mississippi Medical Center, Jackson, Mississippi

Background/ Purpose:

Ketamine, an N-methly-D-aspartate (NMDA) receptor antagonist, has demonstrated opioid-sparing effects in critically ill populations; however, evidence supporting its routine use in trauma patients remains limited. This study evaluated the impact of adjunctive ketamine on opioid consumption and clinical outcomes in trauma patients receiving multimodal pain regimens.

Methods:

This single-center retrospective cohort study included adult patients admitted to the trauma service at the University of Mississippi Medical Center between January 1, 2021, and July 31,2025 with or without the addition of continuous ketamine for multimodal analgesia. Patients receiving ketamine for procedural sedation or intubation, receiving ketamine for less than 24 hours, or with traumatic brain injury, seizure history, or psychotic disorders were excluded. The primary outcome was average daily opioid consumption measured as MME per day during hospitalization. Secondary outcomes include hospital and intensive care unit (ICU) length of stay, delirium, rate and quantity of opioids prescribed at discharge, and total inpatient opioid exposure. Continuous variables were analyzed using Man-Whitney U test and categorical variables using chi-square or Fisher's exact tests.

Results:

A total of 109 patients were included with 49 in the treatment and 64 in the control group. Baseline demographics were imbalanced with the treatment group experiencing significantly higher rates of ICU admission, mechanical ventilation, and regional anesthesia. Average daily opioid consumption was similar between treatment and control (72.044 [45.79-117.58] vs. 73.35 [48.94-107.29]; p=0.954). Total inpatient opioid exposure was significantly higher in the ketamine group (1079 [663.4-1804] vs 672.75 [350.6-967.9]; $p < 0.002$). Hospital length of stay, in days, was significantly longer among patients receiving ketamine (12 [9-18] vs 8 [6-14]; $p<0.001$). Rates of delirium, opioid prescriptions at discharge, MME amount discharged, and ICU length of stay were similar.

Conclusion:

Adjunctive ketamine was not associated with reduced daily average opioid use in adult trauma patients. Patients receiving ketamine demonstrated greater total inpatient opioid exposure and longer hospital length of stay; these findings likely reflect a higher baseline injury severity and analgesic requirements in the ketamine group. Further research controlling for baseline injury severity and acuity is warranted to clarify the role of ketamine as an opioid-sparing agent for trauma patients.

Shelton, Kolayah

Renal Dose Adjustment for Piperacillin-Tazobactam in Septic Shock: Evaluating Clinical Outcomes and Dosing Practices

Shelton, Kolayah and Welch, Ron
Baptist Memorial Hospital – Golden Triangle, Columbus, MS

Background and Purpose

The pharmacokinetics of β-lactams in critically ill patients are profoundly altered, resulting in possible subtherapeutic concentrations early in therapy. Studies have shown that in over half of patients with acute kidney injury (AKI) upon admission AKI resolved within 48 hours, raising concern that early dose reductions may inappropriately limit antibiotic exposure during the critical early phase. Collectively, this data suggests that deferring piperacillin-tazobactam renal adjustment until renal function stabilizes may optimize antimicrobial exposure and outcomes in shock. Then, there is the issue of which equation or measure is most appropriate to review for dosing recommendations, The Cockcroft–Gault (C–G) equation or modern eGFR equations (2021 CKD-EPI).

Methods

This study is a single-center, retrospective electronic health record review of piperacillin-tazobactam (Zosyn) dosing in septic shock patients to determine whether provider/pharmacist-led dosing based on CrCl versus eGFR and/or timing of renal dose adjustment influences patient outcomes. Data was collected between September 1, 2023, and September 1, 2025. The study examined the association between early dose reductions of Zosyn and clinical outcomes such as mortality and escalation of therapy in septic shock patients.

Patients included were 18 years of age and older who presented to Baptist Memorial Hospital - Golden Triangle with septic shock (per ICD 10 code or Sepsis-3 definition and received piperacillin-tazobactam (Zosyn) within 24 hours of admission.

The primary outcome of this study was to assess difference in eGFR with CrCl to see which reflects renal function more accurately when renally dosing Zosyn in Septic Shock. The secondary outcomes were to assess the association between early dose reductions of Zosyn and clinical outcomes such as mortality and escalation of therapy in septic patients.

Results

Will be described at the time of the presentation.

Conclusion

Will be described at the time of the presentation.

Shoureshi, Parichehr

Pharmacokinetic Target Attainment of Meropenem in Immunocompromised Pediatric Patients at a Tertiary Care Center

Shoureshi, Parichehr; Cross, Shane; Morton, Ted; Leggas, Mark; Wolf, Jason
St. Jude Children's Research Hospital, Memphis, TN

Background and Purpose

Meropenem, a broad-spectrum β-lactam antibiotic, is frequently used in immunocompromised pediatric patients with serious Gram-negative infections. Pediatric pharmacokinetics are highly variable and influenced by age, renal function, and critical illness, potentially resulting in subtherapeutic or supratherapeutic exposures despite standard dosing strategies. Published data in critically ill children suggest that conventional intermittent infusions may not reliably achieve pharmacodynamic targets. This project aims to implement real-time therapeutic drug monitoring (TDM) to evaluate and optimize pharmacokinetic target attainment of meropenem in an immunocompromised pediatric population at a single specialty center.

Methods

This single-center quality improvement project will be conducted from August 2025 to March 2026. Eligible patients include those receiving meropenem with available TDM data. Pharmacokinetic target attainment is defined as maintaining free drug concentrations above the minimum inhibitory concentration for at least 90% of the dosing interval. Data collection will include demographics, baseline clinical characteristics, renal function, infection details, meropenem dosing regimens, and TDM results. Process measures include frequency of TDM sampling, turnaround time, and provider adherence to recommendations. Outcomes include the proportion of courses achieving pharmacokinetic targets and modifications made based on TDM. Continuous variables will be summarized as mean ± standard deviation, and categorical variables as frequencies and percentages.

Results

Results will be described at the time of the presentation.

Conclusions

Conclusions will be described at the time of the presentation.

Sims, McKenzie

Effect of Oral Alpha/Beta Agonists on Acute Traumatic Spinal Cord Injury in the Neuro Intensive Care Unit at an Academic Medical Center

Sims, McKenzie; Gordon, Cameron; Lirette, Seth; Leon, Kyla; Bhatia, Kunal; Smalley, Zachary; Alambyan, Vilakshan
University of Mississippi Medical Center, Jackson, MS

Background and Purpose

Acute traumatic spinal cord injury (tSCI) is a neurological emergency with significant hemodynamic consequences. Blood pressure management after tSCI varies in targets, duration, and pharmacologic approach. Current practice using oral agents (e.g., midodrine [MID], pseudoephedrine [PSE], or MID+PSE) to reduce intravenous (IV) vasopressor use is limited by a lack of high-quality evidence.

Methods

A retrospective analysis of 70 tSCI patients admitted to the Neuroscience Intensive Care Unit of University of Mississippi Medical Center (Level 1 trauma center) between July 01, 2020 to July 01, 2025. Baseline characteristics were compared with Kruskal-Wallis tests for continuous variables and Fisher's exact tests for categorical. Outcomes were evaluated under a causal inference framework of augmented inverse-probability weighting. Both treatment and outcomes models were adjusted for age, sex, race, BMI, and ASIA scale at ICU admission.

Results

Baseline characteristics did not differ among patients who received MID, PSE, or MID+PSE (all $p>0.010$). A MAP goal of 80 mmHg and a treatment duration of 7 days were most common. Average daily doses were 17.2 mg/day for MID, 147.7 mg/day for PSE, and 24.8 mg/day of MID with 140.4 mg/day of PSE for combination therapy. Norepinephrine (NE) use was common, with higher mean NE requirements in the MID group (3.7 mcg/min, $p=0.007$). Bradycardia was more frequent with MID+PSE (57%, $p=0.011$), and systolic blood pressure (SBP) was also higher with combination therapy (140 mmHg, $p=0.038$). Compared with MID and MID+PSE, PSE was associated with a lower probability of MAP failure on any day of MAP management ($p=0.038$ and $p=0.009$). There were no differences among groups in IV vasopressor duration ($p>0.167$), total time spent in MAP failure ($p>0.523$), ICU length of stay ($p>0.072$), cumulative fluid balance ($p>0.131$), duration of central venous or arterial catheters ($p>0.442$ and $p>0.505$), deep venous thrombosis ($p>0.642$), or ASIA impairment scale at discharge ($p>0.191$).

Conclusions

Time spent in MAP failure may be a useful metric for studying tSCI outcomes. PSE's performance requires validation in larger samples and prospective studies. The increased rate of bradycardia events with MID+PSE, adjusted for heart rate, injury level, and ASIA scale at ICU admission, warrants further evaluation. These results derive from a subset of a larger cohort that is still under analysis.

Singh, Sharan

Evaluation of Pharmacist-Driven Insulin Infusion Transition in the Intensive Care Unit

Singh, Sharan PharmD
Mississippi Baptist Medical Center, Jackson, MS

Background and Purpose

In 2008 Mississippi Baptist Medical Center (MBMC) established an inpatient Diabetes Management Team (DMT) to improve glycemic management in hospitalized patients. This is a consult-driven service that manages patients throughout the hospital. However, limited evidence exists on the impact of this pharmacist-led service on insulin infusion transitions in intensive care units (ICU). Transitioning from an insulin infusion to subcutaneous therapy is a clinically vulnerable period, during which inappropriate timing, dosing errors, or deviations can lead to hyperglycemia or hypoglycemia. The purpose of this review is to evaluate the impact of the DMT service on glycemic outcomes after insulin infusion transitions.

Methods

This retrospective, single-center chart review included adults age 18 years or older admitted to the ICU at MBMC between June 1 and December 31, 2025, with diabetes who were transitioned from intravenous to subcutaneous insulin. Patients undergoing dialysis and pregnant individuals were excluded. The primary outcomes for this study included appropriate transition timing and the incidence of hyper and hypoglycemia within 24 hours of insulin infusion discontinuation. The secondary outcome for this study was insulin infusion resumption within 48 hours. Outcomes were compared between patients whose transitions involved DMT consult versus no DMT consultation.

Results

Using a report from the electronic medical record, 119 patients were initially identified, with 28 exclusions, resulting in 91 patients included in the final analysis. Of the 91 patients evaluated, 63 patients were managed by DMT and 28 by non-DMT providers. Four hypoglycemic events occurred among 3 patients managed in the DMT group, whereas the non-DMT group experienced 6 hypoglycemic events among 5 patients. There were 42 hyperglycemic events in 35% of patients in the DMT-managed group compared to 57 events in 82% of patients in the non-DMT group. Insulin infusions were restarted within 48 hours in 3.3% of non-DMT patients and 0% of DMT patients.

Conclusion

DMT consultation was associated with fewer hypo/hyperglycemic events and more appropriate insulin infusion transitions, compared with non-DMT transitions. These findings suggest pharmacist involvement may enhance the safety and consistency of insulin infusion transitions in the ICU.

Steele, Corinne

Blood Pressure Optimization Following Tenecteplase

Steele, Corinne
Mississippi Baptist Medical Center, Jackson, Mississippi

Background and Purpose

Stroke remains a leading cause of morbidity and mortality in the United States, occurring approximately every 40 seconds. Acute ischemic stroke (AIS) accounts for about 87% of cases and results from acute cerebral arterial occlusion. Rapid reperfusion is critical to minimize neurologic injury. Tenecteplase received approval for AIS and guideline support for use in eligible AIS patients. Following administration, blood pressure should be maintained below 180/105 mmHg for 24 hours to reduce the risk of hemorrhagic transformation; however, no preferred antihypertensive agents are specified. This study evaluated blood pressure control and safety outcomes during the 24 hours following tenecteplase administration in AIS patients at Mississippi Baptist Medical Center (MBMC).

Methods

This retrospective cohort study included all adult patients admitted to MBMC with AIS who received tenecteplase between October 2023 and September 2025. The primary outcome was the incidence of blood pressure excursions exceeding 180/105 mmHg within 24 hours of tenecteplase administration. Secondary outcomes included the proportion of patients receiving intravenous antihypertensives, the time to the first hypertensive event, and the rate of adverse events.

Results

A total of 204 blood pressure excursions occurred in 45 of the 69 patients evaluated. Diastolic-only elevations accounted for 61.3% of excursions. Only seventeen patients (37.8%) received intravenous antihypertensive therapy, most commonly labetalol. The mean time to first hypertensive event was 5.7 hours. Six patients experienced adverse events within 24 hours, most frequently intracranial hemorrhage and hemodynamic instability. Three patients later expired from downstream complications, two of whom had blood pressure excursions. Among patients with excursions, 22.2% experienced an adverse event.

Conclusions

Blood pressure excursions occurred in 65.2% of patients following tenecteplase administration, most commonly due to diastolic hypertension, yet, fewer than 40% received intravenous antihypertensive therapy. Current MBMC as-needed intravenous antihypertensive order sets specify only systolic parameters, representing a potential opprotunity for improvement in post-tenecteplase blood pressure management.

Steele, Nicholas

Prospective Evaluation of Pharmacist-Led Oral Amoxicillin Challenge for Penicillin Allergy Delabeling

Steele, Nicholas; Dong, Minh; Wilson, Dylan
Jackson-Madison County General Hospital, Jackson, TN

Background and Purpose

Penicillin allergies are frequently reported in hospitalized patients; however, most are not true IgE-mediated reactions. Inaccurate penicillin allergy labels are associated with suboptimal antimicrobial prescribing, antimicrobial resistance, and prolonged hospital stays. Over 95% of patients labeled as penicillin-allergic tolerate beta-lactam antibiotics upon formal evaluation. Direct oral challenge has emerged as a safe alternative to traditional skin testing followed by oral challenge for patients with low-risk allergy histories. This study aimed to evaluate the safety and feasibility of a pharmacist-led direct oral amoxicillin challenge for hospitalized patients with low-risk penicillin allergy.

Methodology

This prospective, single-center interventional study was conducted at Jackson-Madison County General Hospital between December 1st, 2025, and February 28th, 2026. Hospitalized patients with a documented penicillin allergy were screened. Risk stratification was performed using the PEN-FAST rule, with scores less than 3 considered low-risk. Eligible patients were to undergo an oral amoxicillin challenge with monitoring for allergic reaction. Due to lack of eligible patients during the study period, additional data were collected during screening. If prior tolerance to a penicillin antibiotic was documented in the medical record, the allergy label was removed. Reported adverse effects inconsistent with true allergy were reclassified as intolerances. Cephalosporin tolerance was documented in allergy comments when applicable. Antibiotic regimens before and after allergy assessment were evaluated.

Results

A total of 152 patients were screened, with 113 patients excluded due to various criteria. Nineteen patients had their allergy reclassified as an intolerance based on reported reaction history, and 20 had their allergy label removed due to documented prior tolerance to penicillin. Among 46 patients who received antibiotics before and after allergy assessment, 14 (30.4%) had their penicillin allergy label removed. Of these, 3 patients underwent antibiotic de-escalation to a beta-lactam, whereas none of the 32 patients without allergy removal experienced de-escalation (p=0.024).

Conclusion

Although no patients underwent a direct oral amoxicillin challenge during the study period, systematic pharmacist-led allergy assessment resulted in clinically meaningful penicillin allergy delabeling, leading to increased antibiotic de-escalation. These findings highlight the potential impact of structured allergy evaluation on antimicrobial stewardship and support continued implementation and expansion of pharmacist-led penicillin allergy delabeling initiatives.

Suber, Hannah

Impact of Intravenous Tubing on Total Dose Vancomycin Received and Predictive Pharmacokinetic Monitoring

Suber, Hannah; Harlan, Sarah; Mills, Elizabeth; Mabie, Kelsea
Baptist Memorial Hospital – Memphis, Tennessee

Background/Purpose:

Primary and secondary intravenous (IV) infusion tubing are used in the administration of small volume parenteral medications. Varying amounts of active medication can remain in IV tubing following drug administration. Pharmacokinetic monitoring, including AUC guided monitoring, relies heavily on accurate data input for predictive calculations. Lower-than-expected concentrations may be observed in the setting of incomplete medication administration. The purpose of this study was to quantify the volume of residual parenteral vancomycin in primary versus secondary IV tubing following standard administration. Additionally, this study evaluated the impact of incomplete vancomycin administration on accuracy of predictive pharmacokinetic modeling.

Methods:

This prospective, single-center observational study assessed adult patients admitted September 1st, 2025 to May 31st, 2026 who received at least one dose of IV vancomycin. Patients were excluded for acute kidney injury, renal replacement therapy, or discontinuation of vancomycin prior to first random level. The primary outcome was quantified residual volume in primary versus secondary IV tubing after vancomycin administration. Secondary outcomes included incidence of calculated AUC and trough concentration within 10% of predicted, incidence of subtherapeutic or supratherapeutic AUC after first random level, and percent loss of intended dose.

Results:

Seventeen patients were included and 11 received vancomycin via primary tubing. No significant difference in quantified residual volume between tubing type was observed (primary 45 mL vs secondary 22.5 mL, p=0.097). A statistically significant increase in percent of total dose lost was observed with primary tubing (9.2% primary vs 7.2% secondary, p=0.039). No significant difference in incidence of calculated AUC or trough values within 10% of predicted was observed between groups. Additionally, no difference in incidence of subtherapeutic (p=0.878) or supratheraputic (p=0.94) AUC was observed. A significant percent difference in calculated trough (6.1% primary vs 3% secondary, p=0.039) and AUC (4.8% primary vs 1.87% secondary, p=0.044) was observed.

Conclusion:

No difference in quantified residual volume was found between tubing types, however a significantly increased percent of total dose lost was observed with primary tubing. Additionally, tubing type did not significantly impact predictive kinetic modeling. Findings highlight the need for standardized post administration flushing protocols to prevent dose loss.

Taylor, Emily

Cockcroft-Gault versus CKD-EPI Equations for Estimating Renal Function During Medication Dosing: An Analysis of Dosing Strategies in a Community Teaching Hospital

Kaderabek ,Emily; Garey, Karmen; Montgomery, Natalie; Jenkins, Anastasia; Crumby, Trey
[1]Baptist Memorial Hospital – North Mississippi, Oxford, MS; [2]University of Mississippi School of Pharmacy, University, MS

Background and Purpose

Accurate renal dose adjustment is essential to optimize medication safety and efficacy. The Cockcroft-Gault creatinine clearance (C-G CrCl) equation has long been the standard for guiding renal dosing; however, it has several limitations. These limitations include limited validation across diverse patient populations, sensitivity to body weight, and lack of standardization to modern isotope dilution mass spectrometry (IDMS) creatinine assays. These limitations lead to less accurate estimation of kidney function. The 2021 Chronic Kidney Disease Epidemiology estimated glomerular filtration rate (CKD-EPI) was developed to provide a more accurate measure of kidney function. CKD-EPI was designed to be used with standardized creatinine assays and included diverse populations in its development. Recent FDA (2024) and National Kidney Foundation recommendations endorse CKD-EPI eGFR over C-G CrCl for medication-related decision-making due to its improved accuracy, reduced bias across patient populations, and better estimation of kidney function. The purpose of our research is to determine the variance of renal dose adjustments in hospitalized patients when adjusting medications based on the CG-Equation versus the 2021 CKD-EPI equation.

Methods

This retrospective observational study will review all renally adjusted medications prescribed from January–June 2025. Data collected for analysis will include medications that were renally dose adjusted, patient's eGFR using 2021 CKD-EPI equation, patients CrCl using CG-CrCl, and patient variables that could influence patient's eGFR or CrCl such as age and weight. Each renal dose adjustment guided by C-G CrCl will be compared with the corresponding recommendation using CKD-EPI eGFR. The primary endpoint is the proportion of dose adjustments that differ between equations. Secondary endpoints include identifying medications and patient characteristics most frequently associated with discrepancies in renal dose adjustments when using C-G CrCl versus 2021 CKD-EPI.

Results

Results will be described at the time of presentation.

Conclusions

Results will clarify the clinical impact of selecting C-G CrCl versus CKD-EPI eGFR for renal dose adjustments and may inform future institutional dosing policies.

Thai, Linh

Impact of a National Fluid Shortage on the Use of Methicillin-resistant *Staphylococcus aureus* (MRSA)-Active Agents

Thai, Linh[1]; Wingler, Mary Joyce[1]; Cretella, David[1]; Stover, Kayla[1,2]
1 University of Mississippi Medical Center, Jackson, MS
2 University of Mississippi School of Pharmacy, Jackson, MS

Background and Purpose

In September 2024, a Baxter manufacturing facility closure led to a nationwide IV fluid shortage. At the University of Mississippi Medical Center (UMMC), linezolid indications were expanded to offset the impact of the fluid shortage on IV vancomycin. During the fluid crisis, the Antimicrobial Stewardship Program anecdotally observed slower discontinuation for MRSA-active agents, despite continued use of the MRSA nasal polymerase chain reaction (PCR) test. The purpose of this study is to evaluate the impact of a fluid shortage on MRSA-active antibiotic durations of therapy.

Methods

This retrospective, observational study evaluated vancomycin and linezolid use before and after the fluid shortage at a single academic medical center. Encounters from February 1, 2024, to May 31, 2025, were included if patients were at least 18 years old, admitted to UMMC, and received vancomycin or linezolid for at least 48 hours. A key exclusion criterion was confirmed gram-positive infections where vancomycin or linezolid were definitive therapies. The primary outcome was total days of therapy (DOT) for MRSA-active agents. Secondary outcomes included agent-specific DOT, MRSA-active agent Standardized Antibiotic Administration Ratio (SAAR), length of stay (LOS), inpatient mortality, 30-day readmission, and the incidence of adverse effects between patients receiving vancomycin versus linezolid.

Results

One thousand encounters were screened to include 134 patients: 67 patients in the pre-group, and 67 patients in the post-group. The median age of patients was 60 years old. Most patients received MRSA-active agents for either sepsis of unknown origin, skin and soft tissue infections, or pneumonia. The median total MRSA-active agent DOT was 4 days in the pre-group versus 5 days in the post-group ($p = 0.130$). There was no significant difference in secondary outcomes between groups, including incidence of adverse effects. In the post-group, linezolid was the predominant MRSA-active agent used and was only discontinued within 48 hours of a negative MRSA PCR result in 4.3% of patients.

Conclusions

Although not statistically significant, MRSA-active antibiotic durations were numerically higher during the IV fluid shortage. These results highlight an opportunity for targeted stewardship intervention, including education on rapid discontinuation in the setting of a negative MRSA PCR.

Tierce, Carson

Efficacy and Safety of Rasburicase Dosing Strategies (3 mg vs 6 mg vs Repeat Dosing) in Preventing and Managing Tumor Lysis Syndrome

Carson Tierce, Seth Hinkle, Matthew Zakhari, Kelsey Peña
Ascension Saint Thomas Hospital Midtown

Background and Purpose

Tumor lysis syndrome (TLS) is an oncologic emergency characterized by the rapid release of intracellular contents following tumor cell lysis which results in significant metabolic disturbances, including hyperuricemia. If untreated, acute kidney injury, cardiac arrhythmias, seizures, and even death can occur. Rasburicase is a recombinant urate oxidase enzyme that is FDA-approved for prevention and treatment of TLS with weight-based dosing at 0.2 mg/kg daily for up to five days. However, fixed-dose strategies using 3 mg or 6 mg doses have gained attention due to potential cost savings, simplified administration, and emerging evidence supporting comparable efficacy. Studies comparing fixed doses of 3 mg versus 6 mg have shown both doses effectively reduce uric acid levels, but direct comparative data remains limited.

Methods

This retrospective chart review was completed to elucidate whether fixed 3 mg, 6 mg, or repeat dosing of rasburicase offers superiority for TLS management in chemotherapy patients. Patients at least 18 years of age with a documented administration of rasburicase among local Ascension hospitals from January 2020 through September 2025 with a diagnosis of malignancy, baseline hyperuricemia, and recorded uric acid levels were eligible for inclusion. The primary endpoint was the proportion of patients achieving serum uric acid < 7.5 mg/dL within 24 hours of initial rasburicase dose with secondary endpoints focusing on other uric acid trends. Safety endpoints included incidence of adverse drug reactions and TLS-related mortality.

Results

In progress. Results will be presented at time of the presentation.

Conclusions

In progress. Results will be presented at time of the presentation.

Tran, Jennifer

Small Patients, Big Pressures: Evaluating the Efficacy and Safety of Antihypertensive Agents in Pediatrics

Tran, Jennifer; Marsh, Allyson; Phan, Ha; Barber, Katie
The University of Mississippi School of Pharmacy, Jackson, MS

Background/Purpose

Although hypertension management is well-established in adults, there remains a lack of clear, evidence-based guidance for pediatric populations. This project aims to address these gaps by evaluating the effectiveness and safety of various antihypertensive medications in the pediatric population.

Methods

This project was a single-center, single-site, retrospective cohort study including patients aged 13 to 18 years between 2014-2024. Inclusion criteria included documented diagnosis of primary hypertension, receipt of a single antihypertensive medication at diagnosis, and at least one follow-up blood pressure measurement within 12 months of initial start of medication. Preliminary data was collected by the hospital's Center for Informatics and Analytics and managed using REDCap. Data analysis will be performed using quantitative statistics.

Results

Preliminary data sample included 807 patient charts with 358 patients excluded due to having no follow-up data. A sample of the first 207 patients based on MRN were taken for analysis, which was then further excluded based on inclusion criteria. After chart review, a total of 85 patients were analyzed. The average age was 15 years old, and 64% of the population were male. Eighty-four percent were Black or African American, and 92% had a family history of hypertension. Average baseline BP was 140/85 mm Hg. Amlodipine and lisinopril were the most commonly prescribed anti-hypertensive agent.

Average change in SBP and DBP was -3.8 and -2.4 mm Hg, respectively. Thirty-three patients (39%) achieved BP control (<130/80 mmHg) within 1 year of pharmacotherapy initiation. An additional 16 patients achieved BP control during the study period but had an elevated BP reading at subsequent visits during the trial period. Upon chart review, there were mentions of nonadherence for varying amounts of time, undefined pain, knee pain, menstrual cramping, white coat hypertension, and behavioral issues contributing to treatment failure.

Conclusion

The conclusion will be described at the time of presentation.

Vaden, Marshia

Use of a Clinical Surveillance Tool (CST) to Deprescribe Beers Criteria Medications in Underserved Older Adults: A Prospective Pilot Study

Vaden, Marshia; Armstrong, Drew; Parganas, Chris
Regional One Health, Memphis, TN

Background/Purpose

Polypharmacy is increasingly common in older adults and is associated with adverse drug events, falls, hospitalizations, and increased health care costs. Potentially inappropriate medications (PIMs), identified by the Beers Criteria, remain widely prescribed despite strong evidence linking them to preventable harm. Deprescribing has emerged as an important strategy to improve medication safety in older adults. Shared decision-making (SDM) is a key component of successful deprescribing. Despite this, deprescribing has not been widely implemented in primary care serving underserved populations, where polypharmacy and PIM use are common. A Clinical Surveillance Tool (CST) is software that reviews electronic medical records to detect certain medical data in real-time. CSTs may help to improve patient outcomes by identifying PIMs in an older patient population. The primary objective of this study was to evaluate the feasibility and effectiveness of pharmacist-led (SDM) deprescribing, utilizing a CST, in an underserved outpatient Internal Medicine clinic.

Methods

This prospective study utilized a CST to identify patients ≥ 65 years old prescribed ≥1 Beers Criteria medication seen in the Internal Medicine clinic between 11/1/2025 through 2/28/2026. Electronic medical records were used to collect patient specific demographics, laboratory data, medications, and duration of therapy.

Results

A total of 17 patients were identified that met inclusion criteria. The average patient was a 73 year old black female with 13 ± 5 comorbid conditions and were prescribed 11 ± 4 scheduled medications and 1 ± 1 PRN medications. The most common class of PIMs was proton-pump inhibitors with 11 patients prescribed one of these medications. The 2nd most common PIM was aspirin with 3 patients prescribed this medication. A majority of the identified PIMs were discontinued (53%).

Conclusions

Utilization of a CST combined with SDM, led to 53% of identified patients being deprescribed a PIM.

Vadlapudi, Sankalp

Impact of a Pharmacist-Led Diabetes Education Program on Patient Self-Efficacy and Clinical Outcomes

Sankalp Vadlapudi & Justin Kirby
Lipscomb University ,Nashville, TN

Background and Purpose

The purpose of this study is to evaluate the impact of an Association of Diabetes Care and Education Specialists (ADCES)-accredited Diabetes Self-Management Education and Support (DSMES) program on diabetes knowledge and clinical outcomes. This study is being conducted in an underserved rural community with a higher than average diabetes prevalence compared to state and national levels. It aims to identify and address gaps in health literacy, access to resources, and self-management education among participants with diabetes.

Methods

Participants were recruited based on inclusion and exclusion criteria and grouped by learning preference (virtual or in-person). At baseline, participants attend an initial session where demographic and clinical data are collected, and a diabetes knowledge pre-test was administered. Follow-up assessments, including self-care behaviors, social determinants of health, and biometric measures (A1C, weight, lipid panel), are collected at 3 and 6 months. A post-test will be administered at program completion. Data will be analyzed to evaluate changes in knowledge and clinical outcomes.

Results

A total of 9 participants enrolled in the pharmacist-led DSMES program, with 7 regularly attending sessions. Preliminary findings demonstrate trends toward improved glycemic control, including a mean A1C reduction of 0.3%. Improvements in weight, blood glucose, and lipid profiles were also observed. Participants reported positive lifestyle changes, including increased physical activity, improved diet, and better medication adherence. Common barriers shared among participants included limited motivation and time constraints.

Conclusions

These findings support the feasibility and potential impact of a pharmacist-led DSMES program in improving access, engagement, and clinical outcomes in underserved populations.

Vasquez, Alexa

Post Coronary Artery Bypass Graft (CABG) Glucose Control in a Mid-South Community Teaching Hospital: Are We Reaching Our Goals?

Vasquez, Alexa; Palmore, Shelby; Smith, Terry; Needham, Amanda
Christus Health – Pine St, Texarkana, Texas

Background and Purpose

Postoperative hyperglycemia occurs in many patients and can lead to an increased risk of adverse outcomes including poor wound healing, extended intensive care unit stays, and other complications. This study will determine if there are concerns associated with the current insulin infusion protocol and to assess if an intervention is required. The intervention will aim to assess the impact of stricter glycemic control, postoperative complications, and overall clinical outcomes. The purpose of this study is to determine if pharmacist driven education and intervention of the current protocol affect the achievement of glycemic control within 24 hours.

Methods

This study is a single-center longitudinal initiative evaluating insulin infusion management in adult patients' post-CABG. . This study will include patients 18 years or older who underwent CABG surgery and required blood glucose correction postoperatively. Data was collected retrospectively and prospectively across multiple time points, including baseline (pre-implementation) and post-intervention phases to assess effectiveness and compliance. Data will include the time it took glucose to reach <150 mg/dL, glucose checks hourly to determine time in range, medical administration record for amount of insulin administered, and electronic health record for complications related to glycemic control. My primary outcome is achieving glycemic control within 24 hours, defined as <150 mg/dL. My secondary outcomes include the amount of time it took to reach 150 mg/dL, compliance to protocol, rates of hypoglycemia, complications, and intensive care unit length of stay.

Results

Preliminary results show that adherence to the insulin infusion protocol allowed for appropriate glycemic control, supporting its effectiveness. Variability in outcomes was observed in cases where protocol adherence was inconsistent. These findings suggested that suboptimal glycemic control was due to gaps in protocol compliance rather than deficiencies in the protocol design. The intervention was focused on targeted re-education of the protocol to improve overall consistency and patient outcomes.

Conclusion

Based on preliminary data, the standardized insulin infusion protocol appears to effectively achieve target glycemic control when utilized appropriately in post-CABG patients. These results will be compared to post intervention data presented at the time of presentation.

Virostek, Margaret

Pain Points: Comparing Opioid-Sparing Effects of Zynrelef® and Exparel® in Knee and Hip Arthroplasty

Virostek, Margaret, Twilla, Jennifer , Greer, Samuel C , Mattox, Chance, and Henderson, Anna
Methodist University Hospital- Memphis, TN

Background and Purpose

Multimodal analgesia is essential for optimizing postoperative pain control while minimizing opioid requirements. Liposomal bupivacaine (Exparel®) and the combination bupivacaine/meloxicam product Zynrelef® are two long-acting local anesthetic formulations increasingly used to reduce postoperative opioid exposure. However, real world comparative data on their effectiveness, safety, and opioid sparing potential remain limited. The purpose of this study was to compare postoperative opioid utilization and pain outcomes between Exparel® and Zynrelef®.

Methods

This single–health system, multisite, retrospective cohort study included adult patients who received intraoperative Exparel® or Zynrelef® during unilateral total knee arthroplasty (TKA) or total hip arthroplasty (THA) between January 1, 2023, and September 30, 2025. The primary outcome was mean morphine milligram equivalents (MME) required from operating room (OR) case end to 24 hours (±4 hours) postoperatively. Secondary outcomes included MME requirements from OR end to 48 and 72 hours (±4 hours), changes in patient reported pain scores, and time to first opioid administration.

Results

At 24 hours post OR end time, mean MME use was 42.9 (95% CI 34.8–51.0) in the Zynrelef® group and 36.0 (95% CI 28.7–43.5) in the Exparel® group ($p = 0.211$). At 48 hours, mean MME was 71.5 (95% CI 55.6–87.4) with Zynrelef® and 58.9 (95% CI 45.9–70.8) with Exparel® ($p = 0.192$). Notably, 18 Zynrelef® patients and 5 Exparel® patients were discharged before 24 hours. At 72 hours, mean MME was 107.2 (95% CI 80.8–133.5) for Zynrelef® and 81.5 (95% CI 62.9–100.3) for Exparel® ($p = 0.106$), with 30 Zynrelef® patients and 6 Exparel® patients discharged prior to this time point. There were no statistical differences between pain score at any point post operatively. The mean time to first opioid was 334 minutes in the Zynrelef® group and 468 minutes in the Exparel® group ($p=0.239$). The most common opioid first used was IV hydromorphone.

Conclusion

There was no statistically significant or clinically meaningful difference in postoperative opioid consumption between patients receiving Exparel® and those receiving Zynrelef® following TKA or THA.

Waddell, Madison

Fixed vs. Weight-based Prothrombin Complex Concentrate for the Reversal of Direct Oral Anticoagulants in Patients with Intracranial Hemorrhage

Madison Waddell, Bayar Haji, Megan Robbins Laux , Kelsey Pena (Ascension Saint Thomas Midtown, Nashville TN), Elizabeth Overmiller (Ascension Via Cristi Hospital Saint Francis), Erica N Presnell (Ascension Via Cristi Hospital Saint Francis), Hailey Sullivan (Ascension Via Cristi Hospital Saint Francis), Leah Lofquist, Angela Zivkovic, Samiha Badwan (Ascension All Saints Hospital), Kaelin Randle, Katie E Dalton, Kendall Brickel (Dell Seton Medical Center), Emilia Szczesniak-Lagowski, Monika Obstoj Natalia Fijas (Ascension Alexian Brothers Elk Grove Village), Stacie Kroboth (Ascension Data Science Institute)

Background and Purpose

Intracranial hemorrhage (ICH) is a life-threatening neurologic emergency associated with high morbidity and mortality. Timely pharmacological intervention reduces hematoma expansion and improves clinical outcomes. The use of four-factor prothrombin complex concentrate (4F-PCC) is recommended for the reversal of direct oral anticoagulants (DOACs), specifically factor Xa inhibitors (FXaI), in cases of life-threatening bleeding when andexanet alfa is unavailable. Historically, 4F-PCC dosing has followed weight-based strategies for DOAC-related bleeding from the FDA-approved use in warfarin reversal at 25 to 50 units/kg. However, weight-based dosing can lead to an increased risk of dosing errors, delays in administration, and the use of larger doses. Additionally, there is lacking evidence supporting the use of fixed-dose (2000 units) 4F-PCC in those with DOAC related ICH. As a result, 4F-PCC dosing strategies vary across institutions. Few studies have addressed the effectiveness, safety, and appropriateness of dose selection for 4F-PCC in those with ICH. The purpose of this study is to compare hemostatic efficacy rates in those with ICH who received fixed versus weight-based dose 4F-PCC for FXaI reversal.

Methods

This was a multi-center, retrospective chart review of adult patients hospitalized with ICH who received weight-based ($\geq$ 2300 units) or fixed-dose (1750-2299 units) 4F-PCC for the reversal of DOACs.

Results

Of the total population assessed, 586 patients met inclusion criteria. For the primary endpoint, non-inferiority was met. 171 patients (68.4%) achieved effective hemostasis in the fixed group while 201 patients (59.8%) achieved effective hemostasis in the weight-based group. Two of the secondary outcomes including ICU length of stay and in-hospital mortality met statistical significance. ICU length of stay was 2 days in the fixed groups versus 3 days in the weight-based group while in-hospital mortality occurred in 76 patients (30.4%) in the fixed group and 144 patients (42.9%) in the weight-based group.

Conclusions

Fixed-dose 4F-PCC was found to be non-inferior to weight-based dosing. These findings have potential to inform guideline recommendations and standardize 4F-PCC dosing strategies for FxaI associated ICH. Based on these results, institutions may be able to simplify reversal protocols, reduce time to administration, decrease overall medication waste and costs.

Wallace, Meagan

Area Under the Curve Compared to Trough-Based Vancomycin Monitoring in a Children's Hospital

Wallace Meagan[1,2];Vance, Mary Kathryn[1];McMinn, Caleb[1];Curry, Brent [1];Elchynski, Amanda[1]
Arkansas Children's Hospital, Little Rock, AR[1], University of Arkansas for Medical Sciences, Little Rock, AR[2]

Background and Purpose

The 2020 vancomycin consensus guidelines recommend targeting an area under the curve (AUC) of 400 mcg*hr/mL for severe pediatric infections over trough-based monitoring given similar efficacy and reduced toxicity. In February 2025, Arkansas Children's Hospital (ACH) switched from using trough levels to using Bayesian AUC software for vancomycin monitoring in most patients. The purpose of this study was to evaluate safety, efficacy, and overall impact of AUC-based vs trough-based monitoring at our institution.

Methods

We performed a retrospective chart review of ACH patients aged 1 month to 18 years initiated on vancomycin therapy during April-July 2024 (trough) and April-July 2025 (AUC). Eligible patients had at least 2 appropriately drawn vancomycin levels. Exclusion criteria included: central nervous system infection, renal dysfunction at vancomycin initiation, postmenstrual age < 44 weeks, or receiving continuous vancomycin infusion. Target AUC was 400-600 mcg*hr/mL. Trough goal was 10-15 mcg/mL or 15-20 mcg/mL depending on indication. The primary outcome was proportion of patients achieving therapeutic vancomycin levels. Secondary outcomes included proportion of target attainment by the second level, time to therapeutic goal, 30 and 90-day all-cause mortality, number of dose adjustments, number of levels collected, proportion of appropriately obtained levels, and incidence of acute kidney injury (AKI). Statistical significance was defined as a p-value < 0.05.

Results

A total of 86 patients were included, 49 in the AUC group (mean age 5 years, 61.2% male, 40.8% white) and 37 in the trough group (mean age 5 years, 45.9% male, 70.3% white). Target attainment was significantly higher in the AUC group (95.9% vs. 51.4%, p <0.001). The AUC group had a lower final vancomycin dose (53.4 mg/kg/day vs. 70.1 mg/kg/day, p <0.001). The AUC group also had fewer dose adjustments (p=0.004), levels obtained (p=0.02), and subtherapeutic levels (p=0.02). Incidence of AKI did not differ between groups.

Conclusion

AUC monitoring was associated with reduced final vancomycin dose requirements while achieving a higher percentage of therapeutic goal attainment compared to trough. It was also associated with fewer levels drawn, dosage adjustments, and inappropriately obtained levels. Rate of AKI did not differ between the groups. These findings support using AUC monitoring in pediatric patients.

Ware, Morgan

Impact of Pharmacist-led Patient Education on Diabetes-Associated Hospital Readmission Rates

Ware, Morgan - Author[1]; Carter, Jessica - Co-Author[2]; Carter, Barrett - Co-Author[2]
[1]Unity Health - White County Medical Center, Searcy, AR; [2]Harding University College of Pharmacy, Searcy, AR

Background and Purpose

Diabetic ketoacidosis (DKA) and hyperosmolar hyperglycemic state (HHS) are potentially life-threatening disease states requiring hospitalization in patients with type 1 and type 2 diabetes mellitus (DM). Inpatient diabetes education allows for healthcare professionals to address and correct deficiencies in patient understanding and adherence to antidiabetic medications. There is limited evidence available on the impact of diabetes education performed by pharmacists on clinical outcomes such as hyperglycemic emergency readmission rates. This study aims to determine if education by pharmacists in a rural hospital setting makes a significant difference in diabetes-associated readmissions.

Methods

A clinical pharmacist in a small rural hospital created a consultation service for pharmacists to complete diabetes education due to a lack of diabetes educators at this practice site. This retrospective case control study was conducted to evaluate the impact of pharmacist-led inpatient diabetes education on hospital readmission rates. Review of electronic medical records was performed to identify adult patients admitted with DKA or HHS between January 1 and June 30, 2025. Patients were divided into an intervention group that received diabetes education and a control group that received no pharmacist-led education. The primary outcome is the rate of diabetes-associated hospital readmissions within 30 days of discharge. Secondary outcomes include diabetes-associated readmissions within 90 days and 6 months, as well as all-cause hospital readmissions within 6 months.

Results

A total of 38 patients were analyzed, including 13 patients who received diabetes education and 25 patients without education. The primary outcome of 30 day readmissions occurred in 23.1% of educated patients and 8.0% of non-educated patients ($p = 0.31$). Of those who had a history of DKA or HHS, 38.5% were readmitted, while patients with no history of DKA or HHS had no readmissions ($p = 0.016$). Secondary endpoints were not statistically significant.

Conclusion

While there was no significant difference in readmission rates between the two groups, it was determined that education consults were placed more frequently for patients at higher risk, such as young patients with Type 1 DM. Further research is needed to optimize the consultation service and evaluate risk factors for diabetes-associated readmissions.

Wescoat, Elaine

Evaluation of Current Treatment in Alcohol Withdrawal Syndrome Management in ICU Patients: A Retrospective Cohort Study

Wescoat, Elaine[1]; Alejandro, Tricia[1]; Montgomery, Natalie[1,2]; Clark, Teri[1]; Jenkins, Anastasia[1,2]
[1]Baptist Memorial Hospital – North Mississippi, Oxford, MS; [2]University of Mississippi School of Pharmacy, University, MS

Background and Purpose

Alcohol withdrawal syndrome (AWS) is a potentially life-threatening condition that affects individuals with alcohol use disorder who suddenly cease alcohol intake. Severe AWS manifestations, including delirium tremens (DTs), carry high morbidity and mortality. Standard treatment with benzodiazepines effectively controls symptoms but poses risks such as oversedation, respiratory depression, and prolonged ICU stays. Emerging adjunct therapies, including dexmedetomidine (an alpha-2 adrenergic agonist) and phenobarbital (a long-acting barbiturate), may reduce benzodiazepine requirements and improve outcomes. Phenobarbital could be a promising treatment in controlling severe AWS symptoms, with fewer doses necessary over time and its dual acting mechanism that mimics that of alcohol. However, safety concerns, lack of large-scale studies, and insufficient data hinder widespread adoption. Given the critical need for optimizing AWS in ICU settings, this research aims to evaluate current treatment regimens, specifically comparing outcomes associated with benzodiazepines, dexmedetomidine, and phenobarbital. The purpose of this study is to evaluate the current protocol used in AWS patients in the ICU.

Methods

This retrospective cohort study will utilize electronic health records (EHR) data from Baptist Memorial Hospital – North Mississippi for adult ICU patients diagnosed with AWS between September 1, 2024 and September 1, 2025. Eligible patients (CIWA-Ar > 10, documented AWS diagnosis, and complete medical records) will be grouped based on treatment received: benzodiazepines alone, benzodiazepines plus dexmedetomidine, or phenobarbital-containing therapy. Data collected will include demographics, medication dosing and timing, severity scores (CIWA-Ar, RASS), clinical symptoms, and complications. Outcomes such as ICU/hospital length of stay, medication use, and adverse events will be analyzed and evaluated across the selected patient population.

Results

Results will be described.

Conclusions

Conclusions are pending the completion of data analysis and will be described.

White, Kaci

Impact of the Bicillin L-A Shortage on Syphilis Treatment: A Comparison of Outcomes with Doxycycline and Penicillin

White, Kaci; Stover, Kayla R.; Wingler, Mary Joyce; Barber, Katie; Cretella, David
University of Mississippi Medical Center, Jackson, MS

Background and Purpose

Syphilis (*Treponema pallidum*) is a sexually transmitted infection of growing public health concern that can lead to severe neurologic and systemic issues if left untreated. Benzathine penicillin G is the preferred treatment choice; however, national shortages have necessitated the use of alternative agents, like doxycycline. The purpose of this study is to assess the management of, and outcomes associated with syphilis during the drug shortage.

Methods

This multi-site, single entity retrospective observational cohort study evaluated patient encounters at UMMC medical units, emergency departments, and associated clinics between 1/1/2021 - 4/26/2023 (group 1; pre-shortage) and 4/27/2023 - 8/1/2025 (group 2; during shortage). Adult patients were included if they had a reactive syphilis antibody and reflective rapid plasma reagin (RPR) titer who received treatment with either doxycycline or benzathine penicillin G. The primary endpoint was the rate of appropriate serologic response, defined as a four-fold decline in RPR titer without new infection, within 12 months following treatment. Secondary endpoints include changes in prescribing patterns during the shortage and rate of follow-up visits with repeat RPR titers.

Results

A total of 1543 positive titers from 503 individuals were reviewed for inclusion with 150 treated titers included in both groups. The mean age of patients was 36.2 years of age, and majority of patients were black males (82%). Benzathine penicillin G use decreased from 83.7% in group 1 to 66.7% in group 2, with a corresponding increase in doxycycline use from 12.7% to 33.3% ($p<0.001$). Most patients attended a follow-up visit with repeat titers (70.6% vs. 66.7%), and appropriate serologic response was similar between groups (62% vs 51.3%; $p=0.083$). There was limited serologic and clinical relapse within 3 months (1.3% vs. 0%) or disease progression (2% vs. 1.3%).

Conclusions

Appropriate serologic responses occurred at similar rates before and during the shortage period, potentially reflecting continued availability of benzathine penicillin G at select clinics. This study highlighted some areas for improvement in the management of syphilis, including education regarding appropriate documentation, follow-up, and antibiotic selection during a shortage.

Whitis, Nicole

Impact of Insulin Dosing Support Software Implementation on Inpatient Glycemic Management

Whitis, Nicole; McIntyre, Chasity; Madison, Laura
Baptist Health Paducah, Paducah, Kentucky

Background/Purpose

Glycemic management in the inpatient setting is a continuous challenge often requiring efforts to reduce patient's blood glucose fluctuations in a high stress environment. Glucommander® is a computer-based glycemic management system capable of integrating into electronic health records to guide insulin therapy. Unlike traditional sliding-scale insulin regimens that rely on reactive dose adjustments, this software provides proactive dosing adjustments based on real-time glucose values and patient-specific parameters. The purpose of this study is to evaluate whether the implementation of Glucommander® improved inpatient glycemic management.

Methods

This is a single-center, retrospective study utilizing a pre-post intervention design to evaluate the efficacy of Glucommander® in improving inpatient glycemic management. Data on patients with insulin glargine orders was collected from May through July 2025 for the pre-intervention period. In January 2026, the software was implemented hospital-wide for subcutaneous insulin management. Data on patients with insulin glargine orders from January through March 2026 were collected for the post-intervention period. The primary outcome will be the difference between admission and discharge blood glucose levels. Secondary outcomes include number of patients on subcutaneous Glucommander®, the number of hypoglycemic events hospital-wide, the number of patients and instances with severe hypoglycemia (blood glucose <40 mg/dL) and severe hyperglycemia (blood glucose > 300 mg/dL) hospital-wide, the percentage of hypoglycemic (blood glucose <70 mg/dL) and hyperglycemic (blood glucose >180 mg/dL) patient days for patients managed with Glucommander®.

Results

Pre-intervention data has been collected and preliminarily analyzed. From May through July 2025, 319 patients were reviewed. Some patients had multiple encounters during this period resulting in 363 total encounters included in the analysis. The mean hemoglobin A1C among these patients was 8.5%. The mean admission blood glucose was 257 mg/dL, the mean discharge blood glucose was 187 mg/dL, corresponding to a mean reduction of 70 mg/dL. Preliminary analysis of two months of post-intervention data demonstrated a mean A1C of 8.3%. The mean admission blood glucose was 240 mg/dL, the mean discharge blood glucose was 177 mg/dL, corresponding to a mean reduction of 63 mg/dL.

Conclusions

Conclusions are pending one additional month of post-intervention data collection.

Williams, Abel

Experience and Perceptions of CGM Use, Availability, and Access at a Federally Qualified Health Center

Williams, Abel[1]; Brown, Meagan[1,2]; Gaddis, Kira[1]; Barber, Katie[1]; Garrett, Mieyah[1]
University of Mississippi School of Pharmacy, Jackson, MS[1]; G.A. Carmichael Family Health Center, Canton, MS[2]

Background and Purpose

Continuous glucose monitoring (CGM) is a key diabetes technology shown to improve glycemic outcomes in patients with type 1 and type 2 diabetes, due to its ability to provide real-time glucose trends and reduce reliance on frequent fingerstick testing. Federally qualified health centers (FQHCs) serve a disproportionately high number of patients with diabetes, yet emerging evidence suggests CGM may be underutilized in these settings. Understanding provider and staff perceptions in this study may help identify barriers to CGM adoption and inform pharmacist-led interventions.

Methods

The study is a survey-based design to providers or medical staff managing or assisting with the management of diabetes at a federally qualified health center in Mississippi. Inclusion criteria consists of being age 18 years or older, physician or midlevel practitioner, healthcare professionals or staff who manages or assists with diabetes care within the clinic. Individuals are excluded if they are under 18 years old and healthcare professionals or individuals who do not manage or interact with patients with diabetes.

Results

Eighteen healthcare professionals completed the survey, including physicians (17%), nurse practitioners (33%), nurses (11%), and other healthcare staff (39%). The most commonly perceived barriers to CGM use were cost and insurance coverage (89%), lack of patient understanding (83%), limited access to devices (44%), and technical difficulties (39%). Participants indicated that provider education and training sessions (88%), improved insurance coverage (88%), patient education materials (76%), and decision support tools (65%) would increase CGM utilization.

Conclusion

CGM use at FQHCs may be increased through targeted support addressing financial, educational, and workflow-related barriers. Pharmacists are well positioned to expand CGM utilization by assisting with insurance navigation, providing patient education, and leading staff training on CGM interpretation. Pharmacist-led interventions may improve equitable access to CGM and enhance diabetes management in underserved populations.

Wills, Breauna

Comparison of Normal Saline versus Lactated Ringer's in Time to Resolution of Diabetic Ketoacidosis

Wills, Breauna; Smith, Claudia; Bailey, Clara
Baptist Memorial Hospital – DeSoto, Southaven, MS

Background and Purpose

Diabetic ketoacidosis is a complication of diabetes mellitus characterized by hyperglycemia, metabolic acidosis, and ketonemia. Normal saline has been the traditional fluid for DKA, but its high chloride content could lead to hyperchloremia. Balanced crystalloids may offer benefits in managing acid base balance and improving outcomes. The Baptist Memorial Healthcare system updated their DKA protocol to reflect new guidelines published in December 2024 putting an emphasis on using balanced crystalloids. The purpose of this study is to compare the time to resolution of DKA with normal saline versus Lactated Ringer's, measured by anion gap closure and normal bicarbonate levels.

Methods

This is a retrospective cohort study conducted at Baptist Memorial Hospital – Desoto. Inclusion criteria consisted of adult patients admitted to the intensive care unit that met diagnostic criteria for diabetic ketoacidosis from May 2025 to February 2026. Exclusion criteria included patients transferred from non – Baptist facilities, as well as those who did not receive insulin infusion or IV fluids. The primary outcome is the time to resolution of DKA with normal saline versus Lactated Ringer's, as measured by anion gap closure and normal bicarbonate levels. Secondary outcomes include ICU length of stay and time to resolution of DKA will be assessed differently by treatment group. In the normal saline group, resolution is define by anion gap closure and bicarbonate normalization, whereas in the Lactated Ringer's group, it is defined by beta – hydroxybutyrate and bicarbonate normalization. Descriptive and inferential methods will be utilized to compare the outcomes between the groups. Statistical analysis was performed using chi-squared and Mann-Whitney U tests.

Results

To be described at time of presentation.

Conclusions

To be described at time of presentation.

Wiseman, Jacob

Pharmacist Impact on Improving Medication Administration Times During an Acute Stroke

Wiseman, Jacob; Jantz, John
Highpoint Health with Ascension Saint Thomas | Gallatin, TN

Background and Purpose

Stroke is the 4th leading cause of death and disability in the United States.1 Approximately 87% of all strokes are acute ischemic strokes (AIS). One of the primary pharmacologic interventions for AIS is intravenous thrombolytic therapy (IVT). One such thrombolytic is tenectaplase (TNK). TNK has become increasingly popular due to its ease of administration, helping to reduce door-to-needle (DTN) times. Improving DTN times is of paramount importance due to its direct impact on mortality, morbidity, and readmissions. Since this is a modifiable variable, there is an emphasis placed on team members to be able to know their role and the processes in place for AIS. Multiple studies have demonstrated pharmacist (RPh) presence in the emergency department (ED) can reduce DTN by 7 to 20 minutes. The primary purpose of this study is to evaluate the impact RPhs have on reducing DTN by responding to inpatient and ER stroke alerts at a suburban community hospital.

Methods

This was a retrospective, single-center, cohort study of patients who were diagnosed with AIS was conducted at a 167-bed hospital to compare DTN times with or without RPh involvement. Data points collected between September 2nd, 2025, and December 1st, 2025. Patients met the inclusion criteria if they were $\geq$18 years old in the emergency department (ED) or currently admitted with a new diagnosis of acute ischemic stroke and administered TNK.

Results

41 patients were evaluated with only 5 meeting inclusion criteria. All 5 patients were in the non-RPh arm of the study. Patients in the non-RPH group had an average DTN of 58.4 minutes (range 41-78 minutes) with no significant difference between the in-house neurologist and telehealth neurologist.

Conclusion

RPh benefit was unable to be assessed due to lower than anticipated utilization of TNK.

Wu, Hanting

Evaluation of Congestive Heart Failure Patient Readmission Rate With Pharmacy Intervention

Hanting Wu; Caitlin Corker Relph; Preston Wright; Pinak Patel
Magnolia Regional Health Center, Corinth, Mississippi

Background and Purpose:

Congestive heart failure (CHF) is a chronic condition that long term medication management plays an important role in achieving mortality benefit[1]. However, patients with CHF are at increased risk for readmissions, particularly during periods of acute exacerbation[2]. Pharmacists are uniquely poised, as medication experts, to evaluate appropriate use of guideline-directed medical therapy (GDMT) and provide medication counseling to patients. It is well-documented that pharmacists provided medication counseling reduces readmission rates[3]. Therefore, the purpose of this study is to determine whether the readmission rate of CHF patients due to acute heart failure exacerbation will be affected with pharmacist intervention.

Methods:

This study will be a prospective interventional study evaluating the impact of pharmacy intervention on CHF readmission rates. Providers will enter the medication order through a CHF order set which will automatically trigger pharmacy consult. The clinical pharmacist will provide providers with recommendations regarding appropriate GDMT for each patient as well as provide the CHF medication consultation for the patient. Patient demographics, patient readmission rates, medication history and appropriateness of GDMT will be collected for this study. All data will be recorded without patient identifiers and maintained confidentially.

Results:

Results are not yet available, but will be described.

Conclusion:

Conclusions will be described once results become available.

Yarbrough, Nicholas

Comparing Incidences of Acute Kidney Injury with Vancomycin and Piperacillin/Tazobactam to Vancomycin and Cefepime in the Veteran Population

Yarbrough, Nicholas and Otting, Kristin
G.V. (Sonny) Montgomery VA Medical Center, Jackson, Mississippi

Background and Purpose

Literature suggests that the use of vancomycin and piperacillin/tazobactam (VPT) increases the risk of acute kidney injury (AKI). Other studies claim this interaction does not occur. Few studies have assessed VPT-associated AKI in Veterans, with variable results. We aimed to investigate the incidences of AKI in Veterans who received VPT or vancomycin and cefepime (VC) over a 10-year period.

Methods

This retrospective cohort study included Veterans receiving VPT or VC for at least 72 hours from June 2015 to June 2025. Exclusion criteria included no collection of a vancomycin trough; steady-state vancomycin troughs not being within the 10-20 mcg/mL range; AKI, CrCl below 20 mL/min, or dialysis at the initiation of antibiotic therapy; history of kidney transplant; VPT and VC administration during the same admission; or inadequate information from chart review. The primary objective compared incidences of AKI. The secondary objectives evaluated the time to the development of AKI, incidences of AKI based on the Veterans' location, and incidences of AKI based on the use of additional nephrotoxic agents.

Results

A total of 119 Veterans were included in this study, with 90 Veterans receiving VPT and 29 Veterans receiving VC. Eighteen percent of the VPT group and 10% of the VC group developed AKI (p=0.34). Of those who developed AKI, timing was variable in the VPT group with 56% being within 0-3 days, 38% being within 4-7 days, and 6% being greater than 7 days while 100% were within 0-3 days in the VC group (p=0.15); no Veteran receiving VC developed AKI after 3 days (p = 0.20 and 0.66, respectively). Twenty-five percent of the VPT group and 67% of the VC group developed AKI in the intensive care unit or step-down unit (p=0.15). Veterans were receiving another nephrotoxic agent at the time of developing AKI in 69% of the VPT group and 100% of the VC group (p=0.26).

Conclusions

Similar incidences of AKI were observed in Veterans receiving VPT and VC. This study further questions VPT-associated AKI in clinical practice and adds to the growing literature in the Veteran population.

Yonis, Eman

Assessment of Meds to Beds Prescription Flow in a Hospital Outpatient Retail Pharmacy: Optimizing Service Hours and Staffing Models

Yonis, Eman; White, Lindsay; Sidebottom, Ashley; Decareaux, Ian; Jones, Darryl
Baptist Memorial Hospital – Memphis, TN

Background and Purpose

Hospital readmissions often result from medication-related barriers such as poor adherence, delays in filling prescriptions, and limited access to discharge medications. Meds to Beds (MTB) programs address these issues by providing bedside delivery, improving adherence, and supporting care transitions. While prior studies at Baptist Memorial Hospital Memphis demonstrated a reduction in 30-day readmissions with MTB services, operational efficiency factors such as service hours and staffing structures have not been systematically evaluated. This project aims to assess prescription flow relative to pharmacy operating hours and discharge patterns to identify opportunities for optimizing MTB service hours and staffing models.

Methods

This quality improvement study will analyze prescription capture rates, discharge timing, and workflow trends in the MTB program at Baptist Memorial Hospital–Memphis. Data from October 1, 2024, to September 30, 2025, will be collected from the outpatient retail pharmacy. Variables include time of prescription or order entry, processing, delivery, discharge, and reasons for non-capture. Descriptive statistics will summarize prescription volume, turnaround times, and discharge timing patterns. Scenario modeling will be used to evaluate the potential impact of extended service hours and alternative staffing structures on prescription capture and workflow efficiency. Findings will inform recommendations for optimizing program operations and improving transitions of care.

Results

Results will be described at the time of the presentation.

Conclusions

Conclusions will be described at the time of the presentation.

Young, Gabriella

Midodrine Use in the Intensive Care Unit to Liberate Vasopressors

Young, Gabriella; Bright, Bradley; Childress, McKenna
Tristar Skyline Medical Center Nashville, Tennessee

Background and Purpose

Hypotension requiring intravenous (IV) vasopressors is one main reason for ICU admission and a common barrier for discharge which increases ICU length of stay. Identifying efficacious adjunctive oral agents is a strategy being explored to tackle this barrier. Midodrine is an agent of interest due to it being known to raise blood pressure, specifically orthostatic hypotension. Recently, it has had prolific use off-label as an adjunctive agent for patients with difficulty weaning off vasopressors. This study aims to determine if adjunctive midodrine has a direct effect on vasopressor therapy duration.

Methods

In this retrospective observational chart review, the electronic medical record and clinical surveillance platform was used to identify patients that have been initiated on midodrine during their admission at a 283-bed, level 1 trauma center, within a large hospital organization in either the medical, neuro, or trauma ICUs while on vasopressors from January 2024 to January 2025. Patients <18 years old, pregnant, on midodrine long-term outpatient, and reinitiation of vasopressor within 24 hours despite midodrine will be excluded. The primary outcome included the number of days spent on vasopressors. Secondary outcomes included length of stay in the ICU, continuation of midodrine post ICU discharge, and midodrine dosing.

Results

A total of 119 patients were included in analysis with 78 (65.6%) in medical ICU, 31 (26%) in neuro ICU, and 10 (8.4%) in trauma ICU. The main type of shock state seen was septic shock (47.1%). The primary outcome of days on vasopressors was a mean 4.7 days (p=0.28) which was not statistically significant. Additionally, there was no statistically significant difference in ICU length 11.2 days (p=0.47). Phenylephrine mean dose observed with midodrine was statistically significant (p=0.03). Midodrine was observed continuing upon discharge from the ICU 45.4% of the time.

Conclusions

Midodrine was not associated with a reduction in the number of days spent on vasopressors in an ICU setting. Among individual vasopressors, midodrine could possibly help decrease the requirement of phenylephrine but could be due to sample size. Further research needs to be done to evaluate dosing variability due to midodrine doses ranging across the study population.

Zimmerman, Allie

Comparison of Day 3 versus Day 4 Granulocyte Colony-Stimulating Factor Administration in Patients Receiving 5-Fluorouracil-Based Regimens

Zimmerman, Allie; Marjoncu, Dennis; Holman, Kori; Lyons, Tiffany
Methodist University Hospital, Memphis, TN

Background and Purpose

Continuous infusion 5-fluorouracil (5-FU)–containing chemotherapy regimens remain central in treating gastrointestinal malignancies but carry risk for neutropenia. Current guidelines recommend administering granulocyte colony-stimulating factor (G-CSF) at least 24 hours after chemotherapy completion. To reduce patient visit-burden, our institution may give G-CSF on the day of 5-FU pump removal (day 3). Evidence directly comparing day 3 versus day 4 G-CSF administration in this setting is limited.

Objectives

To evaluate whether G-CSF administration on day 3 is non-inferior to day 4 in preventing neutropenia among patients receiving continuous infusion 5-FU–containing chemotherapy.

Methods

This retrospective, single-center cohort study included adults with gastrointestinal cancers treated with 46-hour continuous infusion 5-FU and who received G-CSF on either day 3 or day 4 between January 1, 2023, and September 3, 2025. Baseline demographics, chemotherapy details, neutropenia episodes, hospitalizations, and laboratory values were collected. The primary endpoint was incidence of neutropenia; secondary outcomes included severe neutropenia, febrile neutropenia, dose delays, and dose reductions. Non-inferiority was defined as an upper bound of the 95% confidence interval ≤1.15 for the odds ratio of neutropenia between day 3 and day 4.

Results

A total of 49 patients were included (Day 3: n=248 cycles; Day 4: n=58 cycles). Median WBC (8.80 vs 5.55 $\times 10^3/\mu L$) and ANC (6.12 vs 3.55 $\times 10^3/\mu L$) following G-CSF administration were higher in day 3 compared with day 4 cycles ($p<0.001$). The adjusted odds ratio of neutropenia between day 3 and day 4 was 0.316 (95% CI 0.094-1.065), meeting the pre-specified margin for non-inferiority.

Conclusions

In this analysis, day 3 G-CSF administration showed non-inferiority to day 4 in preventing neutropenia among patients receiving continuous-infusion 5-FU–based regimens. This validates the flexible clinical practice of administering G-CSF on pump removal day to reduce patient burden without compromising their safety.