Poster Competition Abstract Booklet

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Category: Practitioner - Administrative/Practice Management

A-01: Utilization of Robotic-assisted Video Conferencing to Extend Pharmacists' Presence on Patient Care Floors to Provide Transition-of-Care Clinical Services in a Newly Opened Community Hospital

M Nguyen, R Xu, K Emerson, K Rathmann
Houston Methodist The Woodlands Hospital, Conroe, Texas

Background: In newly opened hospitals, the pharmacy practice model is primarily centralized to allow the optimization of operational and clinical workflows. Consequently, the lack of the pharmacists' presence on patient care floors poses unique challenges to provide clinical services and improve patient care, especially during transition of care. In this prospective observational study, the pharmacy staff utilizes a robotic-assisted video conferencing (RVC) device on patient care floors to provide virtual pharmacy services including discharge counseling and addressing patients' medication questions.

Objective(s): The goal of this study is to assess patients' acceptance towards the virtual interaction with pharmacy staff through the RVC interface by conducting anonymous internal patient surveys.

Method(s): The RVC device is used to conduct two-way video conferencing to provide medication education and perform discharge counseling. After each RVC encounter, four survey questions are presented to the patients to assess whether the interaction was smooth, easy to use, the purpose of the medications is understood, and the side effects of the medications are understood. Descriptive statistical analyses were performed.

Result(s): Among the patients surveyed, 75% were 50 years or older. Nearly all patients agreed or strongly agreed to the four questions designed to assess patient acceptance to the RVC encounters for medication counseling.

Conclusion(s): This study demonstrated general acceptance, interest, and appreciation of the virtual clinical services. Furthermore, patient's age was not shown as a barrier for implementing a novel technology for pharmacy services. Future studies should focus on additional outcomes such as the impact on HCAHPS survey scores.

Disclosure(s): Ran Xu received Chester A. Bond (CAB) Memorial Grant for this project from Texas Society of Health-System Pharmacists.

VIEW POSTER

A-02: Leading and Managing Drug Shortages

TPalmer, LJCohen, TPham
University of North Texas System College of Pharmacy

Background: Evidence supports drug product shortage supply issues require the pharmacist leader to communicate with all members of the healthcare team to educate them regarding the complex supply chain and to provide updates on what is being done to manage these issues (ASHP, 2018). Our research supports contemporary evidence relative to the attributes of transparent communication as a key component to the successful management of drug product supply shortages. We believe this initial research and results, fostered by the interest in the topic posted on TSHP Interact, will begin a ground swell of future collaboration among Texas Society of Health-System Pharmacists (TSHP) members working together to manage drug shortage issues and lead the health care team.

Objective(s): Management of the ongoing supply chain, addressing patient drug procurement challenges, and leading the health care team in the resolution of drug shortage issues.

Method(s): The qualitative method was chosen for this study because of this method has the ability to assist in gaining insight into and or understanding of opinions, attitudes, and experiences (Rowley, 2012). This study randomly sampled members of TSHP (n=150). Cumulatively, these respondents possess extensive experiences with the challenges of managing complex drug shortages. The respondents answered a single semi structured open ended survey question. The PY4 student compiled data from the participant's interview transcripts, coded the resultant analysis, and identified themes.

Result(s): Data analysis consisted of reduction of information to significant statements or quotes and then information into significant themes. Four significant themes emerged from the interview transcripts data and aligned with the interview question: 1. Alternative medications. 2. Being proactive. 3. Importance of effective communications. 4. Secondary supplier.

Conclusion(s): The results of this study will contribute to the existing body of knowledge about managing drug shortages and resultant issues. The student accelerated and expanded their professional analysis techniques reviewing the participant responses, coding the responses, and defining the four themes. The experiences from the study enhanced the PY4 students desire to pursue the research and design of feasible and sustainable methods to manage drug shortages and resultant issues.

Disclosure(s): TPalmer is an adjunct associate professor in the Department of Pharmacotherapy in the University of North Texas System College of Pharmacy. LCohen is a tenured professor in the Department of Pharmacotherapy in the University of North Texas System College of Pharmacy. TPham is a fourth professional year students at the University of North Texas System College of Pharmacy.

VIEW POSTER

Category: Practitioner - Clinical

C-01: Overuse of Proton Pump Inhibitors in Cardiovascular Intermediate Care Units

LJ Krustchinsky, MS Allen
Memorial Hermann – Texas Medical Center, Houston, Texas

Background: Proton pump inhibitors (PPIs) are frequently prescribed in hospitalized patients. Most are not reviewed for appropriate discontinuation when patient conditions no longer warrant therapy. Long term use of PPIs is associated with an increased risk of adverse effects such as electrolyte abnormalities, *Clostridium difficile* infection, bone fractures, kidney disease, pneumonia, and dementia.

Objective(s): Assess the use of PPIs in hospitalized patients without documented indication and evaluate the pharmacist's role in their discontinuation.

Method(s): Patients age 18 years or older admitted to the cardiovascular surgery or heart failure intermediate care unit (IMU) were assessed daily by a pharmacist from April 2018 to August 2018 for use of PPIs by medication profile review. Medical records were evaluated for documented indications and prior to admission (PTA) use and if not, providers were asked to discontinue the medication.

Result(s): Of 429 charts reviewed, 168 (39%) were receiving PPIs. 92 (55%) had no documented indication, 71 (42%) were listed as PTA medications, and 94 (56%) were deemed inappropriate. 91 (97%) were successfully discontinued by pharmacists.

Conclusion(s): Pharmacists play a vital role in discontinuing inappropriately prescribed PPIs during transition of care when no indication exists. Continuous evaluation and review of medication profiles can prevent adverse events and potential drug-drug interactions of PPIs.

Disclosure(s): The presenter has nothing to disclose.

VIEW POSTER

C-02: Pharmacist Impact on Antibiotic Use in Asymptomatic Bacteriuria

AP Mitchell, CP Shu, S Patel, S Loughlin, S Edwards
Memorial Hermann

Background: Asymptomatic bacteriuria (ASB) refers to the presence of bacteria in urine without signs or symptoms of a urinary tract infection. Treatment of ASB with antibiotics is associated with patient harm, including increased antibiotic adverse effects, selection of multi-drug resistant organisms, *C. difficile* risk, and treatment cost. Additionally, while treatment of ASB has increased bacteriological cure, prevention of future urinary tract infections or improvement in morbidity and mortality has not been demonstrated.

Objective(s): To demonstrate the impact of pharmacists in reducing inappropriate antibiotic use for treatment of asymptomatic bacteriuria and collection of unnecessary urine cultures in asymptomatic patients.

Method(s): This quality improvement project was a joint learning collaborative between the Houston Health Department (HHD) and Houston area hospitals with 5 participating Memorial Hermann sites, including Katy, Greater Heights, Southwest, TIRR, and Rehabilitation Hospital-Katy. During a one-month pre-intervention period, data was collected on antibiotic use for ASB at local sites, including emergency department, general medicine/surgery, brain injury units, and inpatient rehabilitation. Active intervention included coordinated physician education via medical staff/department meeting presentations, ASB education handout with project goals, pocket cards on symptomatic urinary tract infection (UTI) versus ASB, and case presentations. Pharmacists provided directed feedback to ordering providers to discourage use of inappropriate antibiotics and unnecessary urine culture collection during a three-month post-intervention period.

Result(s): Multi-modal education of providers in both inpatient and outpatient settings combined with directed pharmacist intervention decreased inappropriate treatment of ASB across multiple inpatient and outpatient clinical settings (pre- vs. post-intervention, 52.5% vs. 39.9%, P=0.01). Unnecessary urine culture collection decreased by 34%. Evaluation of UA reflex criteria appropriateness resulted in a recommended change to reflect the presence of pyuria (WBC >10) as a positive UA. Implementation of this change has resulted in a 37% decrease in urine culture volume across Memorial Hermann Health System.

Conclusion(s): Pharmacist intervention led to significant reduction in inappropriate treatment of asymptomatic bacteriuria across a variety of clinical settings within a health-care system. Distinguishing ASB vs. UTI requires assessment of patient symptoms and re-evaluation of provider preconceptions of urinalysis (UA) significance.

Disclosure(s): AP Mitchell serves on the TSHP Communications Council. CP Su, S Patel, S Loughlin, and S Edwards have no disclosures.

VIEW POSTER

C-03: The Impact of a Transitional Care Management Pharmacist on Medication-Related Readmissions

L Paul, M De La Garza, S Le, K Purcell
Baptist Health System, San Antonio, TX

Background: Ineffective transitions of care lead to poor patient outcomes, increased expenses, and higher hospital readmission rates. Baptist Health System implemented a transitional care management (TCM) program to prevent future readmissions. A TCM pharmacist was added to focus on reducing medication-related readmissions.

Objective(s): The primary objective was to evaluate the impact of the TCM pharmacist on medication-related readmissions. The secondary objective was to evaluate the overall impact of pharmacist interventions on patient outcomes.

Method(s): A retrospective evaluation was conducted on all patients who were consulted by the TCM pharmacist from April 1 to December 31, 2018 for the 6 Baptist hospitals in the San Antonio market of Tenet Healthcare.

Result(s): The TCM pharmacist was able to identify discrepancies on 47% of the discharge medication lists. The most common discrepancies were incomplete medication reconciliation due to missing frequency (46%), medication omission (16%), incorrect dose (14%), and duplication of therapy (14%). Approximately 200 interventions were made during the day 3 post-discharge follow-up phone calls. The most common interventions included patient education on new and discontinued medications, non-medication related issues such as scheduling a follow-up appointment with primary care or specialist physicians, and communication with hospital case managers on problems encountered. The medication-related readmission rate was reduced by 80% when the TCM pharmacist was involved.

Conclusion(s): The TCM pharmacist was able to improve transitions of care and reduce medication-related readmissions by 80% through making post-discharge follow-up phone calls, identifying and resolving discrepancies on the discharge medication list, and intervening on medication-related issues.

Disclosure(s): The authors have nothing to disclose.

VIEW POSTER

C-04: Impact of Antimicrobial Stewardship Initiatives on Fluoroquinolone Usage and Antibiotic Drug Spend

MM Radigan, Y Jasti, TG Ledbetter, LD Thurman, KK Starr
Baylor Scott & White Medical Center – Waxahachie, Waxahachie, TX

Background: In 2016, the U.S. Food and Drug Administration (FDA) released a safety announcement advising that the side effects associated with fluoroquinolone antibiotics outweigh the benefits for patients with uncomplicated infections. The Waxahachie (WAX) Antimicrobial Stewardship Committee identified an opportunity to target the reduction of fluoroquinolone usage based on FDA warnings and high utilization at WAX.

Objective(s): The objective of this study was to determine if the implementation of antimicrobial stewardship initiatives would decrease the rate of inappropriate fluoroquinolone prescribing.

Method(s): The WAX Antimicrobial Stewardship Committee developed fluoroquinolone appropriate use criteria and provided education to pharmacists and prescribers. Pharmacists evaluated the appropriateness of fluoroquinolone orders upon order verification and reassessed existing orders during 48-hour antibiotic timeouts. Clinical decision support software was used to collect data on fluoroquinolone usage at WAX each month, measured in days of therapy per 1000 days at risk (DOT/1000DAR). Cost savings were calculated using antibiotic drug spend per pharmacy adjusted patient days.

Result(s): Average monthly fluoroquinolone usage decreased from 75.2 DOT/1000DAR in Calendar Year (CY) 2017 to 13.3 DOT/1000DAR in Calendar Year 2018, resulting in an 82% reduction between the two time periods. Total

antibiotic usage decreased by 24% during the same time period. Total antibiotic drug spend per Rx adjusted patient days decreased by 29%, from $5.59 in CY 2017 to $3.98 in CY 2018.

Conclusion(s): The implementation of antimicrobial stewardship initiatives had a positive impact on the reduction of fluoroquinolone usage and total antibiotic drug spend at our facility.

Disclosure(s): MM Radigan has nothing to disclose. Y Jasti has nothing to disclose. TG Ledbetter has nothing to disclose. LD Thurman has nothing to disclose. KK Starr has nothing to disclose.

VIEW POSTER

C-05: Evaluation of a Pharmacist-driven Review of Urine and Genital Cultures in a Pediatric Emergency Department

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Children's Health, Dallas, Texas

Background: The review of positive culture results by clinical pharmacists in pediatric patients discharged from the ED has not been described.

Objective(s): To describe changes in review and notification times for positive cultures in a pre-post observational study by clinical pharmacists in an academic pediatric ED.

Method(s): Clinical pharmacists began review of positive cultures on January 30, 2011. A retrospective review of charts was done on patients 0-18 years who presented to the ED and had positive culture results in the pre-period, January 1, 2010 to December 31, 2010, and the post-period, February 1, 2011 to January 31, 2012. Patients who were admitted were not included in the study.

Result(s): A total of 16,581 positives cultures were reviewed, including 3,446 urine, 256 genital, and other types of cultures.

Interventions in both pre/post periods were similar for urine cultures: 352/1,714 (20.54%) and 352/1,732 (20.32%), respectively. Interventions for genital cultures were 81/125 (64.8%) and 91/131 (69.45%) in the pre/post periods. The mean time (hours) to first review decreased for both urine and genital cultures from the pre to post periods: 18.0 vs 16.9 (p=0.019) for urine and 18.4 vs 17.4 (p=0.732) for genital cultures. Similarly, the mean time (hours) to notification for both urine and genital cultures decreased from the pre to post periods: 66.4 vs 46.4 (p=0.043) and 22.7 vs 21.7 (p=0.732), respectively.

Conclusion(s): Clinical pharmacists have a positive effect in decreasing review and notification times of certain cultures in a pediatric ED.

Disclosure(s): None

VIEW POSTER

Category: Practitioner - Education

E-01: Introductory Pharmacy Practice Experience Transition

JT Copeland, JC Fazio-Gosser
University of the Incarnate Word, Feik School of Pharmacy, San Antonio, Texas

Background: Historically, Community Introductory Pharmacy Practice Experience (IPPE) was completed at the end of P2 and Institutional IPPE at the end of P3. Based upon feedback (student, faculty, stakeholder), IPPEs were moving forward a year in the curriculum (Community after P1; Institutional after P2).

Objective(s): The objectives were to provide experiences earlier in the curriculum and improve student ability to identify a desired career pathway earlier.

Method(s): The curriculum implementation plan was to occur over two years due to class size and limited Institutional IPPE sites. For the first time, three classes (P1, P2, P3) would participate in experiential education simultaneously. During the first transition year, P1 students will participate in Community, P3 students in Institutional, and P2 students would be split in half with 50% in Community and 50% in Institution. During the second and final transition year, three classes would again simultaneously participate in IPPE with P1 students in Community, P2 in Institution, and 50% of P3 in Community and the other 50% in Institution. Travel stipends were offered for out of area Institutional IPPEs.

Result(s): The IPPE Institution transition will be completed in 2019 which is one year ahead of schedule. The final IPPE Community transition will be completed in 2020 which is on schedule.

Conclusion(s): The IPPE transition is one strategy that Experiential Offices can implement to improve the student's ability to choose a career pathway earlier. Generous preceptor support, diligent site recruitment, and creativity are essential to a successful transition.

Disclosure(s): None

VIEW POSTER

E-02: Experiential Education's Role in a Successful Residency Interview

JT Copeland, JC Fazio-Gosser, CM Long
University of the Incarnate Word, Feik School of Pharmacy, San Antonio, Texas

Background: Completion of a pharmacy residency continues preparation for practice by providing opportunities to apply knowledge learned in school to various patients while enhancing essential career skills. The value of these training programs has prompted an employment advantage and, consequently, acquiring a residency position has become increasingly competitive.

Objective(s): The Experiential Education (EE) department at the Feik School of Pharmacy (FSOP) is making efforts to provide residency-seeking students with rotations that will improve their success as a residency applicant.

Method(s): EE has worked to optimize the timing and availability of direct patient care advanced pharmacy practice experiences (APPEs) for students interested in residency. It is our hope that completion of these rotations prior to the American Society of Health-System Pharmacists Midyear Clinical Meeting will enhance interview performance as a result of strengthened clinical knowledge as well as an improved capacity to discuss their experiences providing patient care and being a healthcare team member.

Result(s): Longitudinal APPE (LAPPE) programs at local hospitals were developed with priority given to residency-seeking students in order to provide additional direct patient care experiences and to provide them earlier in the year. These programs will enable 13 (15%) P3 students at FSOP pursuing residency to complete direct patient care rotations and possibly longitudinal projects prior to recruiting events, thus strengthening their residency candidacy.

Conclusion(s): The development of LAPPE programs is one strategy EE departments can implement to improve the ability for students pursuing residency to obtain learning experiences critical to successful residency interviews.

Disclosure(s): None.

VIEW POSTER

E-03: Maximizing the Pharmacy Student Learning Experience and Reducing Preceptor Burnout

NA John, CE Sutton, JK Light, JA Mathew
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Background: A pharmacy preceptor's responsibility is to ensure pharmacy students are equally well prepared when completing the rotation. The challenge has been the vast variation in students' baseline knowledge and their clinical confidence. The preceptor must meet the individual needs of multiple students' learning capabilities which creates additional strain to both the student and the preceptor.

Objective(s): The goal of this study is to increase the students' clinical knowledge, skills, and confidence by at least 25% at the beginning of the rotation compared to the end of the rotation. The secondary goal is to decrease preceptor burnout every rotation by 25%.

Method(s): Clinical skills includes recommendations during rounds and patient work ups with preparedness assessed through patient presentations and drug information questions. Clinical knowledge includes focus on non-rounding days for mandatory topic discussions, journal clubs, and patient presentations. Clinical confidence includes "Fantastic Fifteen" where 15 minutes a day are dedicated to student self-reflection on concepts they learned, a positive encounter and an opportunity for improvement. Decreasing preceptor burnout includes modified schedule from daily rounds to targeted rounds 3 days per week with standardized communication procedures between preceptors on student progression.

Result(s): A survey was administered at the rotation end to assess outcomes. Based on the results, all measures improved by at least 25%. The changes demonstrated a positive improvement in overall rotation experiences. In addition, preceptor burnout decreased by 45% which validated greater morale.

Conclusion(s): Rotation modifications increased student proficiency and decreased preceptor burnout.

Disclosure(s): Authors have nothing to disclose.

VIEW POSTER

E-04: Striving to Meet the ASHP Residency Accreditation Standards for Preceptor Development

K Purcell, L Paul, K Uriarte
Baptist Health System, San Antonio, TX

Background: The ASHP accreditation standards for a PGY1 residency require ongoing preceptor appointment, assessment, and development (4.4.c, d, e). Many programs get cited related to this aspect of the standards, as was our program.

Objective(s): To provide targeted preceptor education programs on a consistent basis.

Method(s): A preceptor needs assessment survey was emailed to all preceptors on April 19, 2018. It included a question regarding preceptor education program topics of interest.

Result(s): The results of the preceptor needs assessment survey along with the findings of a residency accreditation site survey on April 17-18, 2018 were used to create a preceptor development plan for the 2018-2019 residency year. The decision was made to start each quarterly Residency Advisory Council (RAC) meeting with a brief preceptor education program (PEP). Topics addressed so far include: (1) giving feedback and completing evaluations on time, (2) using and navigating PharmAcademic, (3) meeting the ASHP preceptor requirements and filling out the ASHP academic and professional record, (4) teaching critical thinking and problem-solving skills, and (5) managing burnout, resiliency, and well-being. The next PEP will be on increasing the rigor of rotations. Handouts were created that provided the core information for preceptors that were unable to attend the RAC meetings. Additionally, the RAC minutes and PEP handouts were emailed and posted on PharmAcademic for documentation purposes.

Conclusion(s): Making the commitment to do a PEP at the beginning of each RAC meeting has been well received by preceptors and is helping us to meet the accreditation standard.

Disclosure(s): The author has nothing to disclose.

VIEW POSTER

Category: Student

S-01: Effect of Diet on A1c Reduction in Pediatric Patients with Type 2 Diabetes

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Texas A&M Irma Lerma Rangel College of Pharmacy - College Station, Texas

Background: Diabetes is a risk factor for cardiovascular disease, the leading cause of death in the United States. The recent rise in childhood obesity correlates with a likelihood of developing pediatric type 2 diabetes. Several studies have been evaluated to analyze the impact of non-pharmacologic diet recommendations on achieving A1c goals.

Objective(s): The objectives of this literature review are to analyze different diets that facilitate weight management in relation to achieving A1c goals in pediatric population with Type 2 Diabetes Mellitus.

Method(s): Initial literature sources were identified via MEDLINE search of MESH using “very-low calorie diet,” “glycemic index,” “DASH,” “T2DM,” “intermittent fasting,” “A1c reduction,” and “pediatric.” Search was limited to within 10 years, English only, and humans only.

Result(s): Four diets were studied that showed beneficial results. Glycemic index diet shown to reduce waist circumference. Very low-calorie energy diet, with 800 kcal/day, illustrated 6-15 kg weight loss over 3 to 12 weeks. However, further assessment of nutritional adequacies posed a limiting factor. Intermittent fasting has been shown to reduce weight by 3-7% and body fat by 3-5.5 kg. DASH diet consisted of weight management through dietary intake. Projected A1c reduction for GI, VLED, Intermittent fasting, and DASH are 0.43%, 0.39%, 0.52%, and 0.38% after 12 months, respectively.

Conclusion(s): The increase in childhood obesity increases the risk of developing T2DM and further complications. Furthermore, intermittent fasting shown the greatest baseline A1c reduction compared to other diets. Limitations to diets are adequate nutritional intake for growth in pediatrics.

VIEW POSTER

S-02: Bridging the Gaps of Communication Between Inpatient and Community Pharmacists to Improve Medication Adherence Post-discharge

NV Anyagaligbo, K Xu
Palm Beach Atlantic University, West Palm Beach, Florida

Background: Lack of communication between inpatient and community pharmacists during care transitions exists. Although medication changes in hospital are communicated to patients, adherence to new medication regimen varies. Nearly 3 out of 4 patients do not take their medications as prescribed, leading to adverse health outcomes and higher healthcare costs. Inpatient and community pharmacists should communicate patient's discharge medications to improve medication adherence and decrease adverse drug events.

Objective(s): To identify collaborative strategies between inpatient and community pharmacists to improve medication use, and minimize discrepancies during care transitions and to assess medication adherence in recently discharged patients and timely pick up of medications through a follow-up call post discharge by a pharmacy student

Method(s): Five community pharmacists in Belle Glade, FL were interviewed to assess challenges and opportunities for improving patients' medication use post-discharge. Follow-up phone call was conducted by pharmacy students to discharged patients with any of the following admission diagnosis: heart failure, chronic obstructive pulmonary disease, pneumonia, myocardial infarction, and diabetes. Medication discrepancies and factors influencing medication adherence post-discharge were identified. This pilot study is IRB-approved.

Result(s): 40% of community pharmacists interviewed are aware of newly discharged patients. All of the community pharmacists interviewed indicated that medication instructions upon discharge lacked clarity. 33% of patients interviewed were completely adherent to medication instructions upon discharge.

Conclusion(s): Communication between hospital and community pharmacists would lead to improvements in medication safety and adherence post-discharge.

Disclosure(s): Neither primary nor secondary authors have any conflicts of interest to disclose.

VIEW POSTER

S-03: Antibiotic Utilization Patterns Associated with Treating Urinary Tract Infections in Pediatric Patients

AM Coleman, KL Rascati
UT College of Pharmacy, Austin, Texas

Background: Traditionally, the first-line treatment for pediatric UTIs was amoxicillin. However, emerging resistance of urinary pathogens to amoxicillin have led to other treatment options being utilized in practice. Antibiotic prescribing practices may differ amongst practice settings due to differences in male and female urinary tract anatomy and differences in institutional protocols.

Objective(s): 1) To describe the utilization patterns for treating initial UTI in Texas Medicaid patients under 1 year of age. 2) To assess whether treatment practices differ between place of service or by gender.

Method(s): The inclusion criteria included patients who presented to the emergency department, physician's office or inpatient hospital with an initial UTI episode. The exclusion criteria included patients with abnormal genitourinary tract anatomy, multiple co-morbidities, and inpatient treatment of UTI.

Result(s): 5929 patients were included in the analysis, 3791 of the patients were female (63.9%) and 2138 were male (36.1%). A chi-square analysis shows a significant relationship between gender and antibiotics prescribed (X2 =62.85,

p<.001). For females, cefdinir and amoxicillin were utilized at similar rates (34.7% and 34.8%, respectively). For males, amoxicillin was utilized more than cefdinir (39.1% and 30.8%, respectively). A second chi-square analysis shows a significant relationship between place of service and antibiotics prescribed (X2 =62.85, p<.001). In the emergency department cefdinir is more often prescribed while amoxicillin is preferred in the physician's office and inpatient settings.

Conclusion(s): Cefdinir was the most commonly used antibiotic as a first-line treatment for UTIs. Antibiotic utilization differed significantly between males and females and amongst place of service.

Disclosure(s): None

VIEW POSTER

S-04: Public Impact: The Diverse Approaches to Community Service Among Student Sections

P Funderburk, A Ramirez, L Kim, C Cruz, E Dominguez, N Eapen, D Giang, LH Girgis, G Harb, K Kennedy, B Lennon, A Nava, C Nguyen, J Ontiveros, S Osman, D Pierce, H Razzack, S Spurgers, C Tran, A Urueta, N Zafar
Student Section Executive Committee (SSEC), Texas Society of Health-System Pharmacists (TSHP), Round Rock, TX

Background: Pharmacists are one of the most affordable and accessible health care professionals to the general public and have gained in increased role with in the healthcare industry. In coordination with American Society of Health-System Pharmacists (ASHP) statement of support in the incorporation of the services of pharmacists for meeting primary care needs of patients, student pharmacist have been developing a multitude of community service events to demonstrate the availability and impact pharmacists can have before they completely join the profession. However, it is questionable if student pharmacists, as a state cohort, are participating in events while portraying the impact that pharmacist has on its patients.

Objective(s): The objective of this poster is to demonstrate the diversity of community service events and their utilization in reaching different cohorts of the community and representing the roles that pharmacists fill.

Method(s): The Student Society of Health-System Pharmacists (SSHP) chapters within Texas dedicated various events in giving back to the community as student pharmacists. The events hosted by each chapter varied from health screenings, drug take back, vaccination clinics, card making, food distributions, advocating for the profession and health education.

Result(s): Not applicable

Conclusion(s): The Student Society of Health-System Pharmacists (SSHP) Chapter-hosted community service events reached diverse patient populations and demonstrated the variety of roles pharmacists play in patient outcomes. These student-driven SSHP service events allowed out chapters to advocate for the profession and patient health outcomes as they prepare to enter the profession.

Disclosure(s): Nothing to disclose

VIEW POSTER

S-05: Lab Values Don’t Lie: Pharmacist’s Role in Medication Safety

TL Furney, T Dasher
Feik School of Pharmacy, University of the Incarnate Word, San Antonio, Texas

Background: Medical error prevention is an essential role of pharmacy practice. The pharmacist's role as a consultant in the long-term care (LTC) setting illustrates this crucial aspect of patient care, ensuring safe and effective therapy.

Objective(s): This project serves to educate pharmacy practitioners and other health care professionals on the value of a pharmacist's monthly medication regimen review. It demonstrates the consultant pharmacist's ability to improve patient outcomes and increase patient safety.

Method(s): Between May 2018 and July 2018, a consultant pharmacist performing monthly medication regimen reviews in an LTC facility detected an abnormal trend in elevated thyroid stimulating hormone (TSH) and decreased free thyroxine (FT4) lab values. This led to an investigation of practices within the facility, where it was discovered that a night nurse was not administering medications during her shift. One of these medications was levothyroxine and this error of omission resulted in the abnormal values that alerted the consultant pharmacist. After this error was corrected, patient's charts continued to be monitored to ensure their lab values returned to normal range. One representative patient's chart was selected to demonstrate the results of this omission and their response to appropriate dosing.

Result(s): Not applicable.

Conclusion(s): In showing this patient's case we hope to convey the value of a consultant pharmacist's monthly medication regiment review. Something as seemingly minor as reviewing non-emergent lab values and medication dosing can have a major impact on provision of safe and effective patient care.

Disclosure(s): Nothing to disclose.

VIEW POSTER

S-06: Students' Perspective on Medical Disaster Preparedness Course

M Keys, A Le, S Tunstall, K Dankert, C Nguyen, M Garber
Feik School of Pharmacy, San Antonio, Texas

Background: Texas has had more declared disasters than any other state, with at least one declared every year. Texas has issued 255 disaster declarations since 1953. There were 154 disasters caused by wildfires, 36 by flooding and 21 by hurricanes. [1] Health care providers are an important entity in the management and relief of disaster events. Pharmacists both in the community and clinical setting could be assets in disaster preparedness and response. Pharmacists can be utilized in patient assessment, screening, distribution of medications, management of emergency supplies, and administration of vaccinations. As mentioned in *Disaster Medicine and Public Health Preparedness*, "We are fortunate to have a number of pharmacists working for and with public health departments to develop response plans, recruit and prepare pharmacists, and coordinate the engagement of pharmacists to best serve their communities." [2] Medical disaster preparedness is not traditionally offered as a focus for future pharmacists. In an effort to give students the opportunity to learn how, when, and where to volunteer or employment in this small niche of pharmacy; this elective was formed. As the pilot class at Feik School of Pharmacy, we chose to evaluate the course and its need in pharmacy education.

Objective(s): The purpose of this research is to present perspective of students on having an emergency preparedness course in pharmacy school, to provide reasoning behind the need for emergency preparedness courses, and to describe structure, events, and training requirements for a pharmacy-based emergency preparedness course.

Method(s): The Medical Disaster Preparedness course was an optional, introductory elective for P2-P3 students that took place in the spring semester and is 2 semester credit hours. After enrollment in the course, each student was

required to complete online preparation training for: Federal Emergency Management Agency (FEMA) certification, Strategic National Stockpile Training, and Emergency

Preparedness: The Role of the Pharmacist Training. Each class session was designed to target core professional outcomes with specific objectives to learn the role of medical providers during disasters. Objectives of the course include: to become familiar with the major types of disasters, resources, and how pharmacists could provide service to our community, to provide an opportunity for students to engage in specialized study of medical roles during disasters, and to understand the leadership responsibilities to prepare for disasters. Student participated in in-class training and lectures with topics such as Medical Disaster Preparedness, Biologics, Stop the Bleed Training from Bexar County Medical Reserve Corps, Continuity of Operations Plans, and Mass Casualty Response. The students of this course also participated in on-site tours to the Emergency Operations Center of San Antonio, Texas and H-E-B Mobile Pharmacy.

Result(s): Introduction to Medical Preparedness was a unique opportunity for students to explore a different perspective that is not offered in the traditional curriculum of pharmacy school. The opportunity to learn and to be trained in medical emergencies created a new potential for aspiring pharmacy students to assist with local preparation and response. This elective empowered us to pursue and participate in organizations such as MRC (Medical Reserve Corp) and be better prepared for leadership positions in emergency preparedness initiatives.

Conclusion(s): It is strongly recommended that pharmacy schools implement a related elective into their pharmacy program to allow students to venture into lesser known but essential roles of pharmacy.

Disclosure(s): None of the authors' have anything to disclose

Reference(s):

1. FEMA Disaster Declarations Web site. https://www.fema.gov/disasters Updated 2019. Accessed 2/2019
2. Ford, H., Dallas, C., & Harris, C. (2013). Examining Roles Pharmacists Assume in Disasters: A Content Analytic Approach. Disaster

VIEW POSTER

S-07: Mental Health First Aid Training Increases Capacity to Handle Mental Health Crises

DV Giang, AL Jusino-Acosta, HT Mucha, TM Patek, S Sadrameli, AG Yap, SR Saklad
The University of Texas at Austin College of Pharmacy & The University of Texas Health San Antonio (UTHSA)

Background: Mental Health First Aid (MHFA) training provides education and techniques to identify and address a potential mental health crisis.

Objective(s): The objective was to improve the knowledge and comfort level of attendees with patients experiencing a mental health crisis.

Method(s): An eight-hour MHFA training was held in October of 2018 for interested participants in San Antonio, Texas. Each participant received a pre- and post-survey in order to measure their knowledge, confidence, and perception of mental illness at baseline and post-training. Individuals will be surveyed six-months after completion and will be asked to report any interventions made.

Results(s): Fourteen individuals were trained from various health professional fields. Thirteen pre-surveys, nine post-surveys, and one intervention report were collected. Before training, participants felt that it was important to be trained in MHFA with an average score of 9 out of 10. They also were only partially confident in their ability to offer aid during a mental health crisis with an average score of 5.8 out of 10. After training, attendees found the MHFA

training beneficial with an average score of 8.8 out of 10 as well as one report of intervention for a patient with depression.

Conclusion(s): Participants appreciated the training and requested another session focusing on the adolescent population. A major challenge is getting participants due to the eight-hour time commitment. Additional MHFA trainings plan to be held for other disciplines such as students of medicine, dentistry, and more to further raise awareness of the importance of MHFA.

Disclosure(s): The authors have nothing to disclose.

VIEW POSTER

S-08: Effectiveness of Pharmacist-Driven Nursing Education on Nimodipine Administration in Aneurysmal Subarachnoid Hemorrhage Patients and Associated Clinical Impact

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Methodist Hospital, San Antonio, Texas

Background: Aneurysmal subarachnoid hemorrhage (aSAH) is a common neurologic life-threating emergency characterized by acute severe headache and neurological dysfunction. Patients presenting with SAH related to aneurysm are at increased risk of worsening ischemic deficits owing to cerebral vasospasm. Nimodipine, a cerebral vasculature specific calcium channel blocker, is the only FDA – approved therapy for vasospasm prevention. Requiring around the clock administration, the opportunity for administration non-compliance is large.

Objective(s): Elucidate the impact of pharmacist education to neurocritical care nursing staff on the importance of nimodipine dosing adherence and its associated clinical impact.

Method(s): Data was retrospectively collected through monthly EMAR and patient chart audits utilizing Vigilanz (Pharmacy surveillance software). Pharmacist education was provided in various formats: daily - during multidisciplinary rounds, monthly - through formal education sessions and incorporated into the nursing onboarding curriculum. All nimodipine doses given during the study period (2017 to 2018) were averaged, analyzed and compared to the baseline cohort (2016).

Result(s): Average time to administration was significantly reduced after pharmacist education (24.4 min in 2016 versus 12.3 min in 2018; $p<0.01$). Both standard dosing frequencies of nimodipine (Q2H/Q4H) were significantly reduced in the post intervention group. No time to administration difference was observed between nimodipine capsules and Nymalize® suspension.

Conclusion(s): Nimodipine is the only agent that has been shown to improve outcomes in patients with aSAH. The role of pharmacist education for nursing staff reinforces the importance of being fully compliant with nimodipine administration and how it can impact clinical outcomes.

Disclosure(s): The authors of this presentation have no conflicts concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

VIEW POSTER

S-09: The Effectiveness of the Intervention to Promote Poison Prevention with Pre-K Children and Parents

E Jeong, D Gu, A Hicks, T Tomasino, T Jou, P Patel
Texas A&M Irma Lerma Rangel College of Pharmacy, College Station, Texas & Texas A&M University College of Architecture, College Station, Texas

Background: The WHO reported poison exposure caused 13 % of deaths in children aged 0-4. Annually, non-intentional poison ingestion results in 63,000 emergency department visits in the 0-5 age group. Although poison control centers have educational programs for each age group, there is a lack of materials for student-led poison prevention education for Pre-K children.

Objective(s): This research aims to evaluate the effect of poison prevention educational tool for Pre-K children aged 4 and their parents at Becky Gates Children's Center (BGCC) of Texas A&M University (TAMU).

Method(s): The educational tools for children and their parents were developed for a pharmacy school student-led education for Pre-K children at BGCC. Three main approaches to develop educational tools are 1) to engage the children and parents to identify the poisons, 2) to learn how to prevent the exposure to the poisons, and 3) to spread awareness of the poison control center number "1-800-222-1222". The developed educational materials were approved by Texas A&M Irma Lerma Rangel College of Pharmacy. Parents from each of the four classes (Seahorses, Dolphins, Jaguars, and Tigers) complete a written survey or an online-based survey both before and after the education. The survey is designed to evaluate knowledge about poison prevention, perception about poison prevention, and perception about a pharmacy school student-led education.

Result: TAMU IRB submission is in the review process. Pre-/post-intervention survey data may capture improvement across domains utilized in the questionnaire.

Conclusion(s): Poison prevention education for children and parents may raise awareness and preparedness of poison prevention practice.

Disclosure(s): The authors of this presentation have nothing to disclose.

VIEW POSTER

S-10: Group Education Benefiting Veterans with Heart Failure

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University of Texas at Austin College of Pharmacy (UTCOP)[1], UT Health San Antonio (UTHSA)[2], South Texas Veterans Health Care System (STVHCS)[3]

Background: For Veterans with heart failure (HF), patient self-care behaviors and health system factors play an important role in patient health status and hospitalization risk.1 Education after discharge may lead to fewer hospitalizations for acute decompensated HF (ADHF) and improved outcomes.2 At STVHCS, pharmacists spearheaded interdisciplinary HF education classes with goal of reducing readmission and increasing patient motivation to taking an active role in their health.

Objective(s): Improve the health status of and decrease re-hospitalizations for veterans, provide education to patients recently admitted for ADHF, and determine if participation in HF education class improves patient outcomes.

Method(s): Patients admitted for HF exacerbation within the previous 3 months are invited to attend a single two-hour HF education class. Patients who attend complete a pre-survey. Pre-survey is used to collect qualitative data regarding baseline understanding of the disease, symptoms, remedies and overall confidence to prevent symptoms

of an exacerbation. The team developed an interactive presentation which patients attend. Post-survey is administered 30 days following class attendance during follow-up call.

Findings/Result(s): Preliminary results indicate a significant decrease when comparing 90 days prior to class attendance to 90 days after as 100% to 21%. Pre- and post- survey results show an increase in patient HF self-care practices and confidence to mitigate HF symptoms following class attendance.

Conclusion(s): The results of this project will be used to continue improving the quality of patient care for veterans with HF. Additionally, results will be used to assess the efficacy of a multidisciplinary team approach in a group setting to manage HF.

Disclosure(s): None of the authors of this presentation have anything to disclose concerning possible financial or personal relationships with entities that may have a direct or indirect conflict of interest in the subject matter of this presentation.

Reference(s):

1. Group Medical Visits in Heart failure for Post-Hospitalization Follow-Up. HSR&D, Principal investigator: Wen-ChihHank Wu MD.
2. Clyde W. Yancy, MD, et al. 2013 ACCF/AHA Guideline for the Management of Heart Failure. doi: 10.1161/CIR.0b013e31829e8776

VIEW POSTER

S-11: Medication Reconciliation Post-Discharge Pilot in A Large Healthcare System

MT Young, MR Green, I Rangel
Texas Southern University, Houston, TX

Background: Medication reconciliation is the process of creating the most accurate list possible of all medications a patient is taking. It is an important element of patient safety and can significantly reduce errors that are common and occur when transferring from one health-care setting to another.

Objective(s): The purpose of this pilot was to create a process for medication reconciliation for discharged patients in order to comply with the 2018 HEDIS measures.

Method(s): A discharge list of Medicare Advantage patients within a specific health plan was provided to the pharmacist. The pharmacist (or pharmacist intern if available) was responsible for reviewing the patient's discharge medications, contacting the patient, and documenting the recommended interventions.

Result(s): Twenty-five interventions were made out of the 100 patients that were contacted. Recommended interventions included medication changes due to drug-drug interactions, over-the-counter medication recommendations, lifestyle modifications, and contacting the physician for dose clarifications

Conclusion(s): Based on the pilot completed by pharmacy, the health plan is considering hiring additional pharmacy resources and utilizing the tools created in order to meet the 2018 HEDIS measure that are now mandatory for CMS Star Ratings.

Disclosure(s): The authors of this presentation have no disclosures regarding possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

VIEW POSTER

S-12: Retrospective Study of the Impact of Pharmacy Summer Camp on High School Students' Career Decisions

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University of Houston College of Pharmacy, Houston, Texas

Background: The University of Houston College of Pharmacy (UHCOP) has hosted an annual Pharmacy Summer Camp for high school students since 2013. In 2018, a retrospective survey was done to gauge the overall influence of the camp on the students' career choices.

Objective(s): The aim is to determine the impact the UHCOP summer camp had on participant's career choice.

Method(s): A 24-item anonymous questionnaire using Qualtrics was developed by summer camp coordinators and a faculty member. It was sent once to all pharmacy summer camp participants from 2013 - 2018 via email on October 5th, 2018.

Result(s): The computerized questionnaire was sent to 144 students that previously participated in UHCOP summer camps and 39 responded (27% response rate). After participation in the designed summer camp curriculum, 97% of responders agree that participation in the UHCOP summer camp influenced their career decision. Among the responders, 87% are currently pursuing or plan to pursue a career specifically in the healthcare field. When asked about which area in healthcare they were most interested in pursuing, nearly 72% chose pharmacy as their top career choice. The next ranked were medicine and nursing with about 16% and 6%, respectively.

Conclusion(s): This study demonstrated that an educational program focused on pharmacy practice can influence a student's career choice. It was found that the majority of past student responders have decided to continue on a career in pharmacy or other healthcare fields. The highest ranked healthcare career choice was pharmacy, followed by medicine and nursing.

Disclosure(s): LT Le is a past participant in the summer camp and responded to the survey. All other authors have nothing to disclose.

VIEW POSTER

S-13: Optimization of Automated Dispensing Cabinets to Decrease Stockouts and Improve Efficiency of Medication Dispensing

A Luu, N Zafar, N Daniel
University of Houston College of Pharmacy, Houston, TX & HCA Houston Healthcare West, Houston, TX

Background: Automated dispensing cabinets (ADCs) are widely used for distribution of maintenance dose medications in hospitals. Implementation of ADCs improves efficiency of medication dispensing by allowing certain medications to be readily available on patient floors, leading to improved patient outcomes. A high medication stockout percentage of ADCs over the past year led to an optimization initiative.

Objective(s): The primary objective is to reduce the overall stockout percentage of the hospital. The secondary objectives are to reduce the stockout percentages of the top five ADCs, reduce the number of stockouts of the top ten most-used medications, and increase the vend:fill ratio.

Method(s): The intervention was conducted over a 2-week period. Five ADCs with the highest stockout percentages were analyzed using reports of current par levels, stockouts and refills from the past 90 days. ADCs were prepared and optimized by adjustment of par levels, removal of unused medications and reallocation appropriately by quantity and space.

Result(s): The overall stockout percentage was reduced from 1.24% to 1.04% after optimization. The vend:fill ratio increased from 9.55 to 10.59 in the months of April and September, respectively. Stockout events decreased by 22% for the top ten most-used medications in April.

Conclusion(s): Interventions performed on the five ADCs had a significant impact on the overall stockout percentage of the hospital, improving availability of medications and decreasing refills by pharmacy technicians. Future directions include incorporation of a sustainable optimization process in the pharmacy workflow to prevent fluctuation in stockout percentages.

Disclosure(s): A Luu, N Zafar and N Daniel have nothing to disclose.

VIEW POSTER

S-14: Analysis of Parks Prescription Programs within the United States: Tools for Implementation in Austin, Texas

EA Meszaros, JA Orendain, SM Hill-Keane, SM Pistilli, KN Dziersk, BM Varughese, VS Young, CA Latiolais
University of Texas at Austin College of Pharmacy, Austin, TX

Background: In the past decade, rates of obesity and chronic diseases have increased dramatically with a decline in physical activity. The healthcare community underutilizes resources available to patients to increase exercise. In 2010, The Golden Gate National Parks Conservancy introduced the Parks Prescription movement, aimed at strengthening the connection between healthcare systems and the outdoors.

Objective(s): The purpose of this project is to analyze current Parks Prescription Programs in the United States and create a plan to best implement the Austin Parks and Recreation Department (PARD) Prescription Program.

Method(s) or Procedure(s): A standard questionnaire was developed for the purpose of interviewing six existing Parks Prescription Programs within the United States. This questionnaire included: program's primary goal, target population, budgeting, research, barriers, successes, partnerships, and outcome measures. Parks prescription programs in California, Colorado, Maryland, North Carolina, Pennsylvania, and Washington were interviewed.

Result(s): Preliminary results from the interviews highlighted the intention to connect patients to outdoor experiences. Common barriers included community awareness and provider advocacy. Establishing local partnerships with key organizations, as well as media coverage has helped break some of these boundaries. In continuing to provide such service, surveys are key indicators used to monitor progress.

Conclusion(s): Obtained results have provided a template to proceed with the redevelopment of the PARD Prescription Program. A community needs assessment survey will be conducted to determine barriers in Austin, TX: seeking out green spaces, recreation centers, and transportation. It will be distributed to residents at a local grocery store and will be analyzed to determine resource gaps of current PARD resources.

Disclosure(s): EA Meszaros, JA Orendain, SM Hill-Keane, SM Pistilli, KN Dziersk, BM Varughese, VS Young, CA Latiolais have no conflicts of interest to disclose.

VIEW POSTER

S-15: Cost Savings from Using Oral Versus Intravenous Linezolid in Patients Tolerating Medications by Mouth in a Comprehensive Cancer Center

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University of Texas MD Anderson Cancer Center, Houston, Texas

Background: Linezolid is a broad-spectrum antibiotic indicated for the treatment of gram-positive bacterial infections and has a 100% absolute bioavailability following both oral (PO) and intravenous (IV) administration. At University of Texas MD Anderson Cancer Center (UTMDACC), the electronic health record (EHR), Epic, prompts providers in the Emergency Center (EC) with antibiotic formulation options from a preferred antibiotic list. An assessment of all the current options revealed that only IV linezolid formulation was available. Based on the knowledge of similar pharmacokinetic profiles, pharmacy sought to investigate the results of adding an option for PO linezolid to the list.

Objective(s): To assess the cost savings of a shift in prescribing practices from IV to PO linezolid in patients tolerating medications by mouth admitted to the Emergency Center.

Method(s): Linezolid oral tablets were added to the UTMDACC preferred antibiotic list within Epic. Data collection commenced over a period of 10 months via a retrospective chart review within Epic. The primary and secondary endpoints were defined as the change in drug spend and change in total PO linezolid orders post-intervention, respectively.

Result(s): Post intervention of PO linezolid identified a total cost saving of $5252.74. Subsequently, orders for the IV formulation decreased by 17.2% followed by a 620% increase in orders for PO linezolid.

Conclusion(s): The results of this data demonstrated cost saving opportunities achieved from the addition of PO linezolid to the preferred antibiotic list. Findings from this study will be deployed to optimize future antibiotic cost within the institution.

Disclosure(s): No authors of this presentation have any financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

VIEW POSTER

S-16: Development of a Patient-Oriented Framework by Pharmacy Students to Prevent Diabetic Foot Complications in Metabolic Syndrome

LT Nguyen, KG Fischer, JF Castro
Texas A&M Irma Rangel College of Pharmacy, Kingsville, TX

Background: The prevalence of diabetes worldwide has progressively risen within the last few decades. With a majority of lower extremity amputations occurring in patients with diabetes acquiring foot disease, it is now more crucial than ever for pharmacists to take proactive measures in promoting health literacy about proper foot care to prevent complications.

Objective(s): The purpose of this project is to improve patient health proficiency in primary care settings, promote health literacy in patients with lower education, and optimize self-management of metabolic diseases through educational and visual tools while reinforcing communication and direct-patient counseling skills in pharmacy students.

Method(s): Education and visual tools including patient-friendly handouts with English and Spanish translations, anatomical models, along with student instructional and patient-oriented videos were generated to support the cultivation of health literacy. These components led to greater comprehension during patient education, provide an interactive patient experience, and allow integration of electronic tools to increase patient education efficiency in primary care settings.

Result: Assessment of these tools through data collection is encouraged to adequately conclude the length of impact on patient health outcomes. The implementation of these tools has been reinforced in previous literature to assist in making health information more understandable to fully convey healthcare messages to patients.

Conclusion(s): Fulfilling a gap in patient knowledge by strengthening the patient education process has served as a key component in transforming students into effective health care professionals. The launch of this project has provided valuable insight for pharmacy students to further expand health literacy improvement opportunities in different disease states.

Disclosure(s): LTN, KGF, JFC: Nothing to disclose

VIEW POSTER

S-17: Risk Stratification Models for QTc Prolongation: A Literature Review

VQ Nguyen, DM Patel, BN Palasik, S Elrod
University of North Texas System College of Pharmacy, Fort Worth, Texas

Background: Prolongation of the QTc interval can lead to life-threatening arrhythmias such as ventricular fibrillation and Torsade de Pointes (TdP). Predicting QTc prolongation risk is difficult since it is often multifactorial, so scoring systems have been created to help with risk stratifying. The American Heart Association provides guidelines for electrographic monitoring and prevention of TdP. However, these guidelines fail to identify specific risk stratification models to monitor patients at risk for QTc prolongation.

Objective(s): The objective of this study is to identify risk stratification models for assessment of QTc prolongation risk.

Method(s): A literature search was performed using PubMed, MEDLINE Complete, CINAHL Complete, and ClinicalKey. Key terms included “QT prolongation”, “QTc prolongation”, “long QT syndrome”, “risk stratification”, “risk score”, and “alert”. Articles were included if they described a risk score model to stratify risk for QTc prolongation and included medication-induced QTc prolongation. Studies were excluded if they were not available in English, focused on animals, or assessed only one medication or medication class. The risk score composition and efficacy of each model were compared.

Result(s): This literature search located 276 articles, with three meeting inclusion and exclusion criteria. Each article presented a risk stratification model that included common risk factors of gender, electrolyte disturbances, and high-risk cardiology conditions. All models were specific to inpatient monitoring, and their efficacy assessments varied from measurements of sensitivity and specificity to mortality.

Conclusion(s): Risk stratification models for QTc prolongation include similar components but focus primarily on monitoring within the inpatient setting.

Disclosure(s): The authors have nothing to disclose.

VIEW POSTER

S-18: Medication Use Evaluation of Vaginal Misoprostol vs Intravaginal Dinoprostone Insert for Labor Induction

S Nim, H Christian, A Graves
Memorial Hermann The Woodlands Medical Center, The Woodlands, Texas

Background: Labor induction rate has doubled over the past three decades to about one in five births. Even though dinoprostone is FDA approved for labor induction, misoprostol is still used as a lower cost alternative. Per American Congress of Obstetricians (ACOG), there are currently no strong recommendations to choose one agent over the other.

Objective(s): To evaluate the efficacy of utilizing vaginal misoprostol versus intravaginal dinoprostone insert as cervical ripening agents, their differences in safety, and cost savings potential at Memorial Hermann The Woodlands Medical Center.

Method(s): This will be a single-center retrospective chart review of pregnant patients receiving vaginal misoprostol or intravaginal dinoprostone for labor induction from January 2016 to September 2018.

Result(s): Data from present up to 2016 shows 872 eligible patient chart documenting 341 vaginal misoprostol and 531 dinoprostone use. Maternal and neonatal characteristics were nonsignificant. Delivery within 24 hours were %62.1 (95%CI 57.0-67.3) and %55.2 (95%CI 50.9-59.4) for misoprostol and dinoprostone respectively. This is a difference of 7.0% (0.3 to ∞, 97.5% non-inferiority CI). Other significant findings were increase rate of tachysystole in misoprostol, %29.6 (95%CI 24.7-34.5), versus dinoprostone, %21.8 (95%CI 18.3-25.4) and subsequent terbutaline use. There was no significance in birth-related complications.

Conclusion(s): Vaginal misoprostol is non-inferior to dinoprostone with similar safety profiles with an exception to increase tachysystole and terbutaline use. Annually, $217,780.64 of resource can be allocated to other areas of the hospital if a major switch to misoprostol is made.

Disclosure(s): The authors of this presentation have no disclosures concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

VIEW POSTER

S-19: Chemical Synthesis of Flexible Antitumor Agents Using 1H imidazole-4-carbonnitrile

JI Nnani, IB Nwolisa, HI Ali
Texas A&M Irma Lerma Rangel College of Pharmacy, Kingsville, TX

Background: Cancer is a group of diseases characterized by the uncontrolled growth and spread of abnormal cells. Cancer is the second most common cause of death in the US exceeded only by heart disease. In 2018, the FDA approved over 100 new cancer drugs. 20% of these were kinase inhibitors which try to provide more targeted cancer therapy. However, there is still a challenge of constant mutation of cancer cells which creates resistance.

Objective(s): This research was aimed at synthesizing a flexible kinase inhibitor antitumor agent. Our role is to carry out the initial stages of the chemical synthesis using 1H imidazole-4-carbonitrile.

Method(s): We identified a hypothetically suitable imidazole analogue and functionalized it using NaOMe and NH4Cl. The compound was then cyclized and chlorinated. The expected final product would be a flexible imatinib analogue capable of adjusting its conformation within a kinase receptor in order to deliver more targeted cancer cell therapy and reduce resistance issues from cancer cell mutation.

Result: Our yield has been successful up to the cyclization stage but has not produced the expected result at the chlorination stage. Future synthesis will build on the steps completed successfully and vary some parameters in the next step of synthesis.

Conclusion(s): The 5-year relative survival rate of all cancers combined has improved due largely to advances in treatment. Creating a flexible kinase inhibitor antitumor agent will further improve survival by delivering targeted cancer cell therapy and circumventing cancer cell resistance due to gene/receptor site mutation.

Disclosure(s): JIN, IBN and HIA. Nothing to disclose.

VIEW POSTER

S-20: Putting Humanity Back into Alcohol (and other Substance) Use Disorder - A Case for Al-Anon

IB Nwolisa, BC Watzak
Texas A&M Irma Lerma Rangel College of Pharmacy, Kingsville, TX

Background: Alcohol and other substance use disorders (SUD) are believed to be the number one health problem facing America by many behavioral scientists. SAMHSA defines SUD as recurrent use of alcohols and/or other drugs which causes clinically significant impairments. They report that in 2014, about 21 million Americans over the age of 12 were classified with a SUD and 2.6 million of those struggled with both alcohol and other substances.

Objective(s): This project aims to highlight the success of the Al-Anon model in helping people affected by alcohol use disorder and suggest that pharmacists could play a major role in creating a ripple effect of their success in our communities.

Method(s): The Al-Anon model of operation and a theoretical model of dehumanization in severe alcohol-use disorder by Fontesse S et al are introduced to highlight how current stigmatization cultures worsen substance use disorders in our community and how Al-Anon uses a more humane approach to reduce the crisis.

Result: The success of Al-Anon is attributed to its ability acknowledge people with these disorders as people deserving of care and help, thereby making them more receptive to seeking help.

Conclusion(s): Alcoholism and SUD is a major health problem in America. There is a lot of stigma still associated with this disorder which prevents people from seeking help. Al-Anon has been able to get many people on the road to recovery by creating a humane culture. Pharmacists can help ripple the success of their model by putting more humanity in their patient interactions into our community

Disclosure(s): JIN, IBN and HIA. Nothing to disclose.

VIEW POSTER

S-21: Medication Adherence of Oral Endocrine Therapy in Breast Cancer Patients in A Large Academic Medical Center

C Opsomer[1,2], K Lu[1,2], U Abajue[1,3], G Hwang[1], H Zaghloul[1], S Abughosh[2], M Trivedi[2]
[1]Houston Methodist Hospital, Houston, TX; [2]University of Houston College of Pharmacy; [3]Texas Southern University College of Pharmacy

Background: Oral endocrine therapy for hormone receptor positive breast cancer (HR+ BC), shows maximum benefit achieved with treatment followed for five to ten years. Despite these outcomes, over half of patients are not adherent (< 80% adherence rate).

Objective(s): To evaluate 6 and 12 month medication adherence rate of HR+ BC patients based on their Houston Methodist Hospital (HMH) electronic medical records (EMRs).

Method(s): This study is a single-center, retrospective, observational, descriptive study. EMRs were collected for patients with oral endocrine medication prescriptions under the HMH Outpatient Center from May through December 2018 based on the following inclusion criteria: patients at least 18 years old, followed at HMH Outpatient Center, diagnosed with HR+BC, with at least one dispense record in their EMRs within 6 months, including medication dosing and frequency. Primary endpoints are adherence rate at 6 months and 12 months, secondary endpoints include the association between 12-month adherence rate and independent variables such as age, ethnicity, cancer stage, type of endocrine therapy, duration of therapy, and switch of therapy.

Result(s): Primary endpoints: 81.7% patients were adherent at 6 months and of 75.51% were adherent at 12 months. Secondary endpoints: none of the variables show a significant association with adherence rate.

Conclusion(s): Adherence rates have decreased from 6 months to 12 months and further analysis for adherence rates are required in patients on longer duration of therapy (>1 year). Secondary endpoints did not show a significant difference due to the small sample size and high adherence rate.

Disclosure(s): Authors of this presentation have no disclosures regarding possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

VIEW POSTER

S-22: Everything's Big in Texas Including the Number of Uninsured Residents

TPalmer, DPatel
University of North Texas System College of Pharmacy

Background: "Texas can't brag about health care rankings because the state is #1 with highest percentage of uninsured residents".[1] These uninsured residents are having to go to emergency rooms just to get a prescription for insulin which overall increases medical costs for the hospital because of the time and resources that are being used to help those that could easily get medical care at a clinic. Over 700,000 in our North Texas community have no health insurance coverage, and over 1 million have household incomes below 200% of the Federal Poverty Line. Many people are unable to afford health-sustaining prescription medications like asthma inhalers, blood pressure medicine and insulin. Paying for these medicines might mean they can't pay for rent, utilities or food for their families. St. Vincent de Paul helps our neighbors sustain their health while they work towards a better life.[2] St. Vincent de Paul opened its doors on September 25, 2018. The staff consists of volunteer pharmacists and technicians and the medications are donated from various vendors.

Objective(s): The objective of this poster is to educate attendees of the substantial population of uninsured located in the Dallas metroplex, by providing solutions to sustainable no cost medication access with the introduction of the St. Vincent de Paul Pharmacy thus supporting alternative access other than hospital emergency departments.

Method(s): Information from the pharmacy operations manager and the pharmacist-in-charge at St. Vincent de Paul Pharmacy in addition to observing the site.

Result(s): Study in progress.

Conclusion(s): By providing access to healthcare to uninsured residents, we assume overall healthcare costs would decrease. Future research will address the Texas Prescription Drug Donation Program in which approved entities can donate unused prescription medications to St. Vincent de Paul Pharmacy. St. Vincent de Paul Pharmacy is very interested in collaborating with nursing homes who would donate unused prescription medications to dispense to the uninsured, lower-income population served at the pharmacy. Currently there are nursing homes that are interested in donating unused prescription medications to the pharmacy through the Prescription Drug Donation Program, but they are asking for assurances from the Department of State Health Services that they can participate

in the program within compliance of all the rules and regulations that a nursing home operates under. Thus far, no assurances have been received.

Disclosure(s): TPalmer is an adjunct associate professor in the Department of Pharmacotherapy at the University of North Texas System College of Pharmacy. DPatel is a third-year professional student at the University of North Texas System College of Pharmacy and the School of Public Health.

Reference(s):

1. Jayson, S. (2018). Texas can't brag about health care rankings. Dallas Morning News, p.10D.
2. St. Vincent de Paul Pharmacy. St. Vincent de Paul - Dallas. https://svdpdallas.org/how-we-help/changing-lives/st-vincent-de-paul-pharmacy. Accessed February 23, 2019.

VIEW POSTER

S-23: The Prevalence of Acanthosis Nigricans among Adolescent Children in the Rio Grande Valley during the 2017-2018 School Year

JA Pena, KA Lawson
The University of Texas at Austin College of Pharmacy, Austin, Texas

Background: Acanthosis nigricans (AN), a dermatological condition, is a marker for insulin resistance. Legislation passed in 2001 allowed for type 2 diabetes screenings in students attending schools in Texas Education Agency Regional Education Service Center areas. Students were also screened for AN during scoliosis screenings and relevant data were collected by The University of Texas-Rio Grande Valley Border Health Office (UTRGV-BHO). Further assessment of children with AN included body mass index (BMI), BMI percentile, and blood pressure.

Objective(s): This study aimed to determine the prevalence of AN and relevant risk factors (obesity and hypertension) among students using UTRGV-BHO data.

Method(s): This retrospective, cross-sectional analysis used Texas Risk Assessment for Type 2 Diabetes in Children data. Subjects included 1st, 3rd, 5th, and 7th graders with AN in Texas schools during the 2017-2018 school year. Statistical analyses included percentages of students by condition, school district, and Texas region.

Result(s): Of the 106,709 students screened, 10,141 students (9.5%) had AN. Among students with AN, 89% were obese, 7.6% were overweight, 17% had prehypertension, and 27% had hypertension (mean percentages for RGV school districts). The proportion of students with AN is higher in the RGV region than in other Texas regions.

Conclusion(s): The presence of AN in school-aged children is highest in the RGV. A substantial portion of children are obese or overweight and have pre-hypertension or hypertension. This group of children may benefit from follow-up through school-based intervention studies that assess the results of early treatment of diabetes or other conditions.

VIEW POSTER

S-24: Understanding Tetanus Vaccination Knowledge in Texas A&M College of Pharmacy Preceptors

S. Prabhu, J. A. Rodriguez, P. H. Patel
Texas A&M Irma Lerma Rangel College of Pharmacy, Kingsville, Texas

Background: Texas, a state that contains four of fourteen anti-vaccine hotspots in the United States, has one of the highest vaccination exemption rates. In the 2017-2018 school year, 387,981 children enrolled in kindergarten have reported exemptions from one or more vaccines. Tetanus, an infection caused by the Clostridium tetani bacteria,

has four vaccines (DT, DTaP, Td, and Tdap) to prevent the disease. With decreased DTaP vaccination rates, pharmacists can educate and motivate patients to get vaccinated.

Objective(s): The purpose of this study is to assess pharmacist's knowledge on the various tetanus dosing schedules, appropriate populations, and different vaccines available.

Method(s): An anonymous Qualtrics survey will be sent to Texas A&M College of Pharmacy preceptors in various practice settings. The survey is sixteen questions lasting no longer than ten minutes. Pharmacist's contact information will be obtained through the college's Experiential Education Office. However, no identifying information will be collected during the survey process. Surveys will be weighted and graded for accuracy and compiled to identify areas of weakness.

Result(s): Study in progress; IRB submission in process.

Conclusion(s): With an increase in the use of vaccination exemption forms, there's been a corresponding decrease in tetanus vaccination rates from 2016-2017. In hopes to combat this, continuing education tools will be developed from survey data for preceptors and other pharmacists.

Disclosure(s): The authors have nothing to disclose.

VIEW POSTER

S-25: Public Health Emergency Preparedness: The Texan Pharmacist's Role

AA Ramirez, MJ Miller
Texas A&M Rangel College of Pharmacy, Kingsville, TX

Background: The National Association of Boards of Pharmacy (NABP) has drafted eight recommended rules for public health emergencies (RPHE). Texas, complying with only 4 of 8 RPHE, does not seem prepared to expedite an effective pharmaceutical response during a public health emergency. Therefore, it is imperative to begin adoption of the RPHE and the building of a framework for defining the roles of pharmacy personnel in disaster response and emergency preparedness.

Objective(s): To estimate pharmaceutical emergency preparedness of Texas pharmacies and to identify a framework for defining the roles of pharmacy personnel in disaster response.

Method(s): A framework was developed in 3 phases: identification of core capabilities in general emergency response for pharmacy personnel, development of a classification scheme for pharmacy personnel, and defining roles and responsibilities, or role-mapping. Each assigned role can then execute their responsibilities related to general emergency preparedness and response. Through the use of focused survey to assess baseline procedures each setting has in place for emergency preparedness, the formal framework could then be implemented along with practitioner education and training.

Result(s): Not applicable.

Conclusion(s): Because this framework is broadly applicable, it can be implemented across the full spectrum of practice settings, including institutional, community, and outpatient clinics. This framework will enable pharmacy personnel working in diverse practice settings to identify and undertake essential actions that are necessary to ensure an effective emergency response and will promote better collaboration between pharmacy team members during actual disaster situations.

Disclosure(s): The author(s) have nothing to disclose.

VIEW POSTER

S-26: Examining the Extension of GARDASIL®9 vaccine to ages 27-45 years

Z Abidogun, S Rasheed
Texas A&m Irma Lerma Rangel College of Pharmacy, College Station, TX

Background: According to the Center for Disease Control, approximately 14 million Americans are infected with the Human Papillomavirus (HPV) every year. Subsequently, the CDC recommended the GARDASIL®9 vaccine for males and females ages 9 through 26 years.[3] As of 2018, however, GARDASIL®9 has been approved for adults aged 27 through 45 years.[5]

Objective(s): Educate healthcare professionals about the expansion HPV vaccination to older adults.

Method(s): Utilized google search of "GARDASIL®9 extension cdc" to find CDC PowerPoint. Used references from CDC PowerPoint and FDA press release on GARDASIL®9 extension to find original trial. Utilized PubMed and searched MeSH terms "Papillomavirus Infection/immunology" and "Middle aged" and "Vaccination". Custom publication date ranges from 2010-2014 were applied. Additionally, utilized PubMed search to find clinical trial on males using MeSH "150 men" and "HPV vaccine" and "27-45".

Result(s): Castellsagué et. al trial was conducted on approximately 3,200 women between the ages of 27-45, who were administered GARDASIL®9 and followed for 4 years.[1] Results showed Gardasil®9 was 88.7% effective in preventing HPV related illness. Data from Pinto et. al clinical trial in which 150 men between the ages of 27-45 years received a 3-dose series of Gardasil®9 over 6 months was used as a rationale to extend approval of Gardasil®9 to men between the ages of 27-45.[8] The results of these studies were used to infer the efficacy of Gardasil®9 on these age groups.

Conclusion(s): Healthcare professionals should expect future guidelines for HPV administration.

VIEW POSTER

S-27: An Analysis of Pharmacy Curriculum Coverage Regarding Transgender Patient Care and Gender Affirming Therapy

JL Robertson, SD Swank, MT Tran, JS Lipscomb, AS Oliver
The University of Texas at Austin College of Pharmacy, Austin, Texas

Background: Many of the 1.4 million transgender people currently living in the United States require specialized treatment known as gender affirming therapy (GAT). A previous study has shown that there are gaps in pharmacy education regarding LGBT populations. However, there is a lack of information regarding availability of education specifically for GAT in transgender patient populations.

Objective(s): The purpose of this study it to describe the current state of GAT education provided in Pharm.D. curriculums around the nation.

Method(s): A seven question Likert-scale survey will be distributed to 152 pharmacy programs to assess curriculum coverage regarding the care of transgender patients. Respondents will be asked questions regarding the duration and content of required and elective coursework. Participation in the survey was both anonymous and voluntary. Results from the survey will be analyzed using descriptive statistics.

Result(s): We hypothesize that the majority of pharmacy school curriculums in the United States do not offer required or elective education on GAT. We also hypothesize that most of the current required curriculum will

primarily consist of cultural competency and sensitivity training rather than pharmacotherapy education. Further results are pending.

Conclusion(s): Pharm.D. curriculums continue to adapt to changes in the landscape of healthcare and should prepare students to manage diverse populations, including transgender individuals. This study has the potential to highlight the gaps in education in current curriculums across the nation as it pertains to the management of GAT in transgender patients.

Disclosure(s): The authors have nothing to disclose.

VIEW POSTER

S-28: The Role of Supplemental Educational Material in Community Pharmacist Counseling

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Texas A&M Irma Lerma Rangel College of Pharmacy, College Station, TX

Background: Patient counseling remains a vital role of the community pharmacist. Community pharmacists are increasingly regarded as the first port of call for patients to seek help with the management of chronic disease; they are local and accessible. A study conducted in 1994 reported that pharmacists had insufficient time to communicate with and counsel patients while still fulfilling other responsibilities. As workload for community pharmacists continues to increase, time spent counseling patients on new therapies is increasingly limited.

Objective(s): This study aims to assess the usefulness of written, supplemental material in addition to verbal counseling to patients on new diabetes medication therapy.

Method(s): An educational pamphlet was created for distribution with new diabetes prescriptions at community pharmacies in Bryan/College Station. This pamphlet includes information about questions for pharmacists, diet/exercise recommendations, and steps to correct low blood sugar. A survey was created to be distributed to these same patients when they pick up the next refill on their diabetes medication. The 6-question survey aims to assess the helpfulness of the pamphlet from the patient's perspective. Topic to be submitted to Texas A&M IRB for approval.

Result(s): Data collection is required to evaluate the impact of the pamphlet content on patients with new diabetes medication therapy.

Conclusion(s): Distributing the educational pamphlet to patients on new diabetes therapy may be helpful in empowering patients to take a proactive approach to their disease and to use pharmacists as a resource to address concerns about medications or disease progression.

Disclosure(s): Authors have nothing to disclose.

VIEW POSTER

S-29: Evaluation of Medication Therapy Management Efficacy in Reducing Emergency Department and Hospital Admissions

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Background: In the past 10 years, there has been an 18.4% increase in annual Emergency Department (ED) visits among US acute care hospitals. According to the National Emergency Department Survey, the proportion of ED visits

by patients older than 50 years, with Medicare or Medicaid insurance, with 1 or more comorbid Elixhauser conditions, and from lower income areas has increased. Value-based payment programs have focused on decreasing avoidable ED visits and hospitalizations. Know Your Medicine (KYM) is a student-led initiative at the University of Texas at Austin College of Pharmacy that provides Medication Therapy Management (MTM) reviews to individuals, including those who have financial restrictions.

Objective(s): Our objectives are to (1) assess the rate of ED/hospital admissions (2) identify contributing factors of those who had been in the ED/hospital in the past 6 months and (3) evaluate the efficacy of medication therapy management in reducing ED/hospital admissions.

Method(s): The University of Texas College of Pharmacy students conducted MTMs and collected patient's demographic information, blood pressure, blood cholesterol, and blood glucose, medications, and chronic conditions using the Qualtrics survey platform. A pre- and post-survey was administered to patients and follow-up calls were completed at 1 month, 3 months and 6 months to establish the longevity of medication adherence and use.

Result(s): Preliminary 2018 data indicated that 35.7% of the 51 MTM patients had been admitted to the ED/hospital within the last 6 months, however, research is still in progress.

Conclusion(s): Research in progress.

Disclosure(s): The authors have nothing to disclose.

VIEW POSTER

S-30: Student Pharmacists Preparedness and Perceptions Regarding Gender Affirming Therapy

SD Swank, MT Tran, JL Robertson, JS Lipscomb, AS Oliver
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Background: Transgender patients who choose to undergo hormone replacement as part of their gender affirming therapy (GAT) require education on their medication regimens and managing side effects. However, previous studies indicated poor coverage of LGBT topics in Pharm.D. curriculums.

Objective(s): The purpose of this study is to assess current student pharmacists' preparation and attitudes in caring for transgender patients.

Method(s): An eight question Likert-scale survey was distributed to student pharmacists to access their access to education and perceptions about GAT on a scale from 1 to 5 (1 being "not important", 5 being "very important"). Student on Advanced Pharmacy Practice Experience (APPE) rotations were asked two additional questions to assess comfort level in providing recommendations for and counseling patients on GAT. Participation in the survey was both anonymous and voluntary. No written consent was required. Results were analyzed using descriptive statistics.

Result(s): A total of 107 students completed the survey. Preliminary results show that they rated the importance of understanding GAT as 4.52 on average. Despite this, only 16.8% reported having access to formal GAT education at their institution. Seventeen P4 students on APPE rotations rated their preparedness to provide recommendations on GAT as 2.06 on average and their preparedness to counsel transgender patients initiating GAT as 2.12.

Conclusion(s): Our assessment suggests that new pharmacy graduates are not prepared by their curriculum to provide recommendations or counsel patients about gender affirming hormone therapy.

Disclosure(s): The authors have nothing to disclose.

VIEW POSTER

S-31: Assessment of Pharmacists' Confidence and Knowledge of Pediatric Asthma and a PCI Reimbursement Program through Targeted Point-of-Sale Intervention Training

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Texas A&M Irma Lerma Rangel College of Pharmacy, College Station, TX

Background: Asthma involves an array of incurable symptoms. However, it may be controlled through the utilization of medical treatment and patient education. The Pharmaceutical Care Incentive (PCI) program was created by Navitus Health Solutions, Driscoll Health Plan's (DHP) pharmacy benefit manager (PBM), to encourage pharmacists in the TX Managed Medicaid/CHIP network to provide point-of-sale education to pediatric patients with asthma and their respective caregiver(s). An initial assessment was performed to compare the knowledge and confidence of community pharmacists within the DHP network regarding a targeted asthma education counseling intervention utilizing the PCI implementation programs, before and after the intervention.

Objective(s): The objective of this poster is to educate conference attendees on the effect of a workshop targeting pharmacists' knowledge and confidence in pediatric asthma targeted intervention at point-of-sale utilizing pre-/post- survey data.

Method(s) or Procedure(s): The intervention training consisted of an educational workshop targeting pharmacists' knowledge and confidence in pediatric asthma counseling at point-of-sale and the usage of PBM PCI codes for reimbursement.

Result(s): At the time of the CE intervention, 22 pharmacists representing 11 distinct pharmacies in the DHP network were in attendance. Pre-/post- intervention survey data marks improvement across three targeted domains: pharmacists' confidence in pediatric asthma, standing knowledge about pediatric asthma, and understanding of the PCI program.

Conclusion(s): The DHP network covers some of the densest pediatric asthma admission rate counties in the state. Informing pharmacists in the network on PCI program utilization will likely reduce admission rates and cut affiliated healthcare costs for the plan.

Disclosure(s): Global Institute for Hispanic Health: Grant number M1803961; Driscoll Health Plan, DCH IRB #00001244

VIEW POSTER

S-32: Pharmacists Preparedness and Perceptions Regarding Gender Affirming Therapy

MT Tran, SD Swank, JL Robertson, JS Lipscomb, AS Oliver
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Background: It is essential that pharmacists are aware of how to appropriately care for the growing and vulnerable population of transgender individuals in the United States. However, it is unclear if pharmacists are adequately equipped to provide quality care for this population.

Objective(s): The purpose of this study is to describe practicing pharmacists' preparedness in caring for transgender patients.

Method(s): An eleven question Likert-scale survey was distributed to practicing pharmacists to assess knowledge and comfort level regarding gender affirming therapy (GAT). Participants were asked to rate their preparedness on a scale from 1 to 5 (1 being "not prepared", 5 being "very prepared"). Participants were also asked for demographic information and if they received GAT education during or after graduating from pharmacy school. Participation in the survey was anonymous and voluntary. Results from the survey were analyzed using descriptive statistics.

Result(s): A total of 92 pharmacists completed the survey. Preliminary results show that 92.4% did not receive GAT education while in pharmacy school. On average, pharmacists rated themselves at 2.14 and 2.20 in providing recommendations and counseling transgender patients on GAT, respectively. The pharmacists that received continuing education in GAT rated themselves at an average of 2.93 and 3.07 in providing recommendations and counseling transgender patients on GAT, respectively.

Conclusion(s): The results of this study show the importance of including GAT education in pharmacy curriculums. Moreover, providing continuing education to practicing pharmacists increases their ability and confidence in providing care for transgender patients.

Disclosure(s): The authors have nothing to disclose.

VIEW POSTER

S-33: Emerging trend in biosimilars from a cost perspective: A narrative review of Zarxio®(filgrastim-sndz)

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Background: Biosimilars have been evolving rapidly in development, regulations, and market due to approaching expiration dates of multiple biologics in the US. While there are incentives to expand biosimilar use from cost perspectives, their uptake has been slow.

Objective(s): This narrative literature review aims to inform healthcare practitioners and managers about the current landscape of biosimilars. The review focuses on Zarxio®(filgrastim-sndz) as a case study to assess potential benefits in terms of cost when using biosimilars in comparison to its reference product.

Method(s) or Procedure(s): Literature searches were limited within the last 5 years. Major sources comprise of articles from PUBMED, the Journal of Managed Care and Specialty Pharmacy, FDA, European Medical Journal, RAND, and IQVIA. Publications in English pertaining to US biosimilars and current formulary data from health insurance companies were obtained.

Result(s): The number of FDA-approved biosimilars has increased as many biologic patents have now expired. However, only 7 biosimilar products have launched. Biosimilar market share for Zarxio®has increased steadily since 2015. Zarxio®is now on most major health insurance formularies. Three US cost analysis studies addressing the cost benefit of Zarxio were identified. Collectively, studies demonstrated that Zarxio®is more cost-efficient than its reference product.

Conclusion(s): Biosimilars' approval and market share in the US increased gradually, offering potential cost savings due to lower launch prices. Recent rapidly changing landscape in healthcare supports the growth of biosimilars. Pharmacoeconomic assessments are limited due to the delayed launch. Zarxio®consistently demonstrated cost-

saving benefits in comparison to the reference product. Additional evaluation of indirect cost should be considered in the US.

Disclosure(s): We have nothing to disclose.

VIEW POSTER

S-34: Management of Cellulitis and Abscess in Pediatric Patients at Baptist Children's Hospital

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Baptist Health System, San Antonio, TX

Background: Physicians sometimes prescribe broader antibiotic coverage than is needed based on the etiology of infections.

Objective(s): To evaluate how pediatric cellulitis and abscess cases were managed and identify any potential opportunities to optimize treatment from an antimicrobial stewardship perspective.

Method(s): A list of all pediatric patients discharged with a diagnosis of cellulitis or abscess between January 1, 2018 and October 31, 2018 was obtained. Medical records were reviewed. Data collected included diagnosis, empiric antibiotic therapy, prescriber, and organism.

Result(s): Clindamycin and ceftriaxone were prescribed in 11 of 33 (33%) children with cellulitis and abscess of the trunk, limbs, and face whereas clindamycin alone was prescribed in 20 of 23 (61%) children. The most common organisms identified were MRSA (13), MSSA (8), and Strep pyogenes (3). Clindamycin and ceftriaxone were prescribed in 10 of 12 (83%) children with orbital and periorbital cellulitis. The most common organisms identified were MSSA and Strep pyogenes, but the literature mentions that gram negative aerobic bacteria and anaerobic bacteria may be present. Clindamycin and ceftriaxone were prescribed in 6 of 8 (75%) children with retropharyngeal abscess. The most common organisms identified were Bacteroides, Prevotella, MSSA, and Strep pyogenes, but the literature mentions that H influenza may be present. Clindamycin resistance was seen in 15% of the MRSA isolates.

Conclusion(s): For simple cases of cellulitis and abscess there is no need to use dual antibiotic therapy with clindamycin and ceftriaxone as only gram positive aerobic bacterial coverage is required and clindamycin typically covers MRSA, MSSA, and Strep pyogenes.

Disclosure(s): The authors have nothing to disclose.

VIEW POSTER

S-35: Prophylactic and Empiric Antifungal Therapy for Preterm Neonates

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Baptist Health System, San Antonio, Texas

Background: Inconclusive recommendations from current consensus guidelines regarding neonatal antifungal prophylaxis and empiric therapy can result in inconsistent practice.

Objective(s): To evaluate antifungal use in neonates at Baptist Health System (BHS) and recommend appropriate algorithms for prophylactic and empiric antifungal therapy in order to promote evidence-based practice.

Method(s): NICU antifungal use and fungal and bacterial cultures at North Central Baptist Hospital (NCBH) and St. Luke's Baptist Hospital (SLBH) were reviewed from January 1, 2017 to September 30, 2018. Algorithms for prophylactic and empiric antifungal therapy for NICU patients were developed based on primary literature evidence.

Result(s): Based on a review of culture results, the rate of fungal infections was less than 1% of all infections in these level III/IV NICUs at BHS. Fluconazole days of therapy per 1,000 NICU days for babies with birthweight < 1,500 g at NCBH was 59 days whereas at SLBH it was 7 days. Prophylaxis was the indication for fluconazole at NCBH and SLBH, 46% and 12% of the time, respectively. Empiric coverage was a common indication at both NCBH and SLBH, 38% and 21% of the time, respectively.

Conclusion(s): Fungal infections are very rare at SLBH and NCBH. A large difference in fluconazole use between NCBH and SLBH may reflect physician practice variation since the patient populations are similar. Adhering to these algorithms for when to initiate antifungal prophylaxis and empiric therapy could standardize physician practice system-wide. Given the extremely low rate of fungal infections, even stricter criteria for fluconazole use could be implemented, particularly regarding prophylaxis.

Disclosure(s): The authors have nothing to disclose.

VIEW POSTER

S-36: Analysis of Double Anaerobic Coverage Therapy

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Baptist Health System, San Antonio, Texas

Background: Inappropriate anti-anaerobic antibiotic use is a prevalent problem, including redundant antimicrobial coverage with double anaerobic coverage therapy (DACT).

Objective(s): The objective of this study was to find common indications in which DACT was used at Baptist facilities and the top services that commonly prescribed DACT in order to identify potential pharmacist-led interventions to promote improved antimicrobial stewardship.

Method(s): Retrospective data review of patients on metronidazole at Mission Trail Baptist (MTBH) and Baptist Medical Center (BMC) from January 1, 2018 to June 30, 2018. Patients needed to have more than 3 doses of metronidazole and a second antibiotic prescribed with anti-anaerobic coverage during the same time period as metronidazole.

Result(s): Redundant coverage made up 98% of DACT cases at MTBH and 90% at BMC. Intraabdominal infection was the top indication for DACT at MTBH and BMC, 73% and 46% respectively. Piperacillin-tazobactam was the most commonly used antibiotic in addition to metronidazole. Surgery and internal medicine were identified to be the top prescribing services utilizing DACT.

Conclusion(s): DACT is not needed for any single indication, but this practice was found to be significant at both MTBH and BMC. A pharmacist-led promotion of improved antimicrobial stewardship, including avoidance of unnecessary antibiotic use and dual therapy, could reduce the number of DACT cases seen. Sharing the prevalence of the problem through education targeting the top services identified may reduce the number of DACT cases. Comprehensive
review of patient profiles should be strongly encouraged, especially during order entry and verification.

Disclosure(s): The authors have nothing to disclose.

VIEW POSTER

S-37: Impact of Submuscular Continuous Ropivacaine Sternal Block on Opioid Utilization Following Cardiac Surgery

MF Wilcox, R Xu, KD Emerson, KL Rathmann
Houston Methodist The Woodlands Hospital, The Woodlands, TX

Background: Due to the traumatic nature of cardiac surgeries and subsequent manipulations, postoperative pain control is essential for improving patient recovery and preventing postoperative complications. Standard postoperative pain management typically involves opioids. However, the use of a multimodal, narcotic-reducing approach to postoperative pain management has been shown to be superior.

Objective(s): To evaluate the impact of submuscular continuous infusion of ropivacaine sternal block on opioid utilization and time to extubation in patients post cardiac surgeries.

Method(s) or Procedure(s): This is a retrospective, pre vs. post-implementation comparison study performed at a community hospital. Patients were categorized into two groups, with or without ropivacaine block. Patients were assessed for opioid usage in milligram morphine equivalency (MME) from postoperative day (POD) 0 to 4 and the time to extubation. Data were collected from electronic medical records. Descriptive statistical analyses were performed. Student t-test was utilized to analyze continuous data. P-values less than 0.05 were considered statistically significant.

Result(s): There were no significant differences regarding total opioid usage from POD 0 to 4 (median 72.0 vs 78.5 MME) and times to extubation (median 243 vs 220 minutes); However, there was a significant difference between the opioid usage on POD 1 (median 15 vs 28 MME), comparing the group with ropivacaine block versus the one without ropivacaine, respectively.

Conclusion(s): The implementation of submuscular continuous infusion of ropivacaine sternal block significantly decreased the opioid usage on POD 1, but did not decrease the total opioid usage from POD 0 to 4, nor the time to extubation.

Disclosure(s): All authors have nothing to disclose.

VIEW POSTER

S-38: Impact of The Supplemental Nutrition Assistance Program on Pharmacy Students' Understanding of Food Insecurity

WD Yang, DV Giang, SD Swank, QT Nguyen, A Abraham
The University of Texas at Austin College of Pharmacy, Austin, TX
UT College of Pharmacy: Student Society of Health-System Pharmacists and Student National Pharmaceutical Association

Background: Those living with food insecurity have limited access to adequate amounts of nutritious food due to a lack of money and resources. In Texas, about one in seven households reported experiencing food insecurity between 2014-2016. Families who meet specific requirements may be eligible to receive financial assistance through the supplemental nutrition assistance program (SNAP). Pharmacists may have to provide recommendations to SNAP recipients whose disease management is reliant on proper nutrition.

Objective(s): The purpose of this initiative is to assess and improve pharmacy students' understanding of the limitations that food insecurity places on families and improve their ability to recommend diet plans to patients living with food insecurity through a simulation of SNAP called the SNAP challenge.

Method(s): Twenty-six pharmacy students participated in the SNAP challenge. A pre-survey was given to students to gauge their preliminary understanding about food insecurity, spending habits, and diet. Participants were then instructed to spend less than $6.40 per day on food for three days. After the challenge, participants completed a post-survey to reassess their understanding of food insecurity and record their nutrient consumption during the challenge.

Result(s): Participants reported a 48.1% increase in food insecurity understanding but a 9.3% decrease in confidence when recommending a diet for SNAP beneficiaries. On average, consumption of carbohydrates increased, while meat, other protein, fruit, and vegetable consumption decreased during the challenge.

Conclusion(s): Participation in the SNAP challenge can increase pharmacy students' understanding of food insecurity which may have implications in their future practice.

Disclosure(s): The authors of this presentation have nothing to disclose.

VIEW POSTER

Category: Technician

T-01: A Journey Towards Zero Pyxis Stock Outs: A Patient Centered Approach

S Cooper, D Nyakundi, S Parekh, M Ouma, T Roduta, R Cox
Memorial Hermann Memorial City Medical Center, Houston, TX

Background: In both decentralized distribution systems and combinations of both centralized and decentralized pharmacy distribution, automated dispensing cabinets (ADCs) serve as a dispensing technology within a majority of hospitals across the country. Post-implementation optimization is necessary to maximize the benefits of ADC technology. Pharmacy technician labor requirements (such as number of refills) and ADC inventory stock out percentages are useful metrics to justify ADC optimization efforts. Memorial Hermann Memorial City Medical Center utilizes Pyxis® automated dispensing cabinets. In an effort to move to a more patient-centered approach, various improvements to the Pyxis® hardware, education to the staff, and reset of medication distribution culture is necessary.

Objective(s): To increase availability of medications through optimization of ADCs.

Method(s): Many strategies were deployed to optimize Pyxis and move toward a goal of zero stock outs: 1) development of a Pyxis refresher for education and review of difficult topics/functionalities; 2) development of a standardized approach to loading new medications in Pyxis including identifying loading/unloading drawers, standardizing pocket sizes, and identifying appropriate min/max levels; 3) review of stock outs daily and updating par levels based on patterns; and 4) deployment of hardware changes for space optimization.

Result(s)/Conclusion(s): Through different optimization strategies, education, and a resetting of the pharmacy distribution culture, the percentage of stock out per number of vends decreased. Additionally, the ratio number of vends per number of refills increased. Despite loading more medications in Pyxis and increasing the vend to refill ratio, the amount spent on inventory loaded in Pyxis did not increase.

Disclosure(s): The authors of this presentation have nothing to disclose.

VIEW POSTER

Category: Resident/Fellow/Post-Graduate - PGY1

Y1-01: Evaluation of Intravenous Ascorbic Acid Use at an Academic Medical Center

BA Bennie, CM Zhong, SA Mathews, RL Ramirez
UTMB Health, Galveston, Texas

Background: The mortality of patients with septic shock persists to be upwards of 50%; thus, it is imperative to continue investigating therapeutic options to optimize patient care for mortality benefit. Marik et al demonstrated dramatic improvement in mortality using a combination of intravenous (IV) ascorbic acid, thiamine, and hydrocortisone.

Objective(s): To evaluate UTMB Health's use and indication for IV ascorbic acid, and compliance with the protocol defined by Marik trial.

Method(s): Medical records were examined for all adults greater than or equal to 18 years of age who received IV ascorbic acid from September 2017 through September 2018.

Result(s): Utilization of IV ascorbic acid at UTMB Health was seen in the following service areas: 44.5% surgery (18.5% general, 18.5% cardiothoracic, 5.6% transplant, 1.9% colorectal), 33.3% medical intensive care unit (ICU), 7.4% cardiology, 5.6% internal medicine, and 9.4% other services. Of the IV ascorbic acid orders evaluated, 79.6% were for the indication of septic shock. There were 55.6% of patients that received IV ascorbic acid, thiamine, and hydrocortisone in compliance to Marik protocol. Of the IV ascorbic orders not compliant to Marik protocol, 54.2% were attributed to surgical services.

Conclusion(s): Medical ICU and surgery services represented 77.8% of total IV ascorbic acid utilization at UTMB Health. Of the patients evaluated, IV ascorbic acid was largely indicated for septic shock— applying an indication restriction to septic shock may be appropriate. Potential education opportunities exist to ensure compliance to Marik protocol.

Disclosure(s): BA Bennie, CM Zhong, SA Mathews, and RL Ramirez have nothing to disclose.

VIEW POSTER

Y1-02: NEWS, Hot Off the Press! National Early Warning Score for Early Detection of Sepsis

AC Bizzell, GA Laine, LC Davis
CHI St. Luke's Health Baylor St. Luke's Medical Center

Background: National Early Warning Score (NEWS) is a validated scoring system used to improve detection of clinical deterioration by using readily available vital signs. DecisioInsight® is a resource used at our institution to generate pager alerts to pharmacist based on elevated NEWS (≥5 in ED and ≥ 7 in acute care areas) and lactate (≥ 2 mmol/L).

Objective(s): The objective of this study is to evaluate the predictive ability of DecisioInsight® alert process to detect patients with sepsis and to identify trends among NEWS alerts, hospital units, and pharmacist intervention documentation.

Method(s): DecisioInsight® data was reviewed for 100 randomly selected patients with positive NEWS plus lactate to determine the positive predictive value (PPV) for sepsis as defined by the presence of sepsis ICD-10 coding. Categorical data was analyzed using Chi-Square test. Pharmacist intervention documentation, patient outcomes, and NEWS alert trends were reported using descriptive statistics.

Result(s): Majority of pages were generated in the ED (65%). Positive NEWS/ lactate accurately predicted sepsis at a rate of 43% in the ED and 37% in acute care areas (P = 0.56). Positive NEWS/lactate had an overall sepsis PPV of 41%. Pharmacist interventions were documented for 35% of page alerts.

Conclusion(s): Positive NEWS/lactate has a relatively low PPV for sepsis likely meaning hyperlactatemia is frequently due to other conditions. Having a lower NEWS threshold in the ED compared to acute care units is appropriate for earlier detection of sepsis in acutely ill patients. There is opportunity for pharmacists to increase intervention documentation.

Disclosure(s): The authors of this presentation have no disclosures concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

VIEW POSTER

Y1-03: Impact of Multimodal Pain Management on Sickle Cell Patients with Acute Pain Crisis

SJ Dantimo, C Pham-Peyton
Memorial Hermann Memorial City Medical Center, Houston, Texas

Background: Acute vaso-occlusive pain crises are the leading cause of emergency room visits and hospitalizations in sickle cell patients. These patients require rapid and effective pain management which should be tailored to the individual and involve a multimodal approach to control pain. Currently, studies regarding optimal pain management techniques in this population are lacking. This study will provide useful information regarding the impact of multimodal pain therapies on the sickle cell patient population.

Objective(s): The primary objective of this study is to assess the impact of multimodal pain management on length of stay and 30-day readmission rates for sickle cell patients with acute pain crisis.

Method(s): This is a retrospective chart review of adult sickle cell patients admitted to Memorial Hermann Memorial City Medical Center between January 2013 and September 2018. After eligibility screening, patients will be classified as either having received scheduled multimodal pain therapy within 48 hours of floor admission or not. Length of stay, 30-day readmission rates, pain scores, and pharmacist pain consults will be compared between the two groups. Data to be collected includes patient demographics, labs, pain management regimens, and adjunctive therapies.

Result(s): Pending follow-up data collection.

Conclusion(s): Pending follow-up data collection.

Disclosure(s): The authors of this study have nothing to disclose.

VIEW POSTER

Y1-04: The Effect of An Integrated Heparin Calculator on Time to Therapeutic Activated Partial Thromboplastin Time (aPTT)

J Daugherty, J Hooper, J Tyler, T Carter
Christus Mother Francis Hospital

Background: Unfractionated heparin (UFH) is a commonly used anticoagulant indicated for the treatment of multiple thromboembolic disorders and is widely used in the inpatient setting. Activated partial thromboplastin time (aPTT)

is a test recommended for monitoring UFH therapy. Failure to achieve therapeutic aPPT within 24 hours of heparin initiation is associated with a significant increase in recurrent thromboembolic events.

Objective(s): The purpose of this study is to evaluate the effect of the availability of an integrated heparin calculator on time to therapeutic aPTT.

Method(s): This is a retrospective, single-center, observational study. Patients who received the hospital's high dose heparin protocol were included. Patients were assigned to a control group and an intervention group relative to heparin calculator introduction into the electronic medical record. The primary outcome was time (hours) to first therapeutic aPTT. Secondary outcomes included correlation between heparin calculator use time to first therapeutic aPPT, length of stay, and correlation between length of stay and heparin calculator use.

Result(s): The primary outcome of time to first therapeutic aPTT was 20.0±15.6 hours in the control group and 21.2±17.6 hours in the intervention group (p = 0.49). Heparin calculator use did not correlate with time to first therapeutic aPTT (CC=0.12). There was a difference in LOS between the two groups with 10.3 days in the control group and 8.0 days in the intervention group (p=0.002). However, after further analysis LOS did not relate to heparin calculator use (CC=0.14).

Conclusion(s): The availability of an integrated heparin calculator did not significantly reduce time to first therapeutic aPTT.

Disclosure(s): The authors of this study have nothing to disclose.

VIEW POSTER

Y1-05: Evaluation of Four-Factor Prothrombin Complex Concentrate (4F-PCC) for Intracranial Hemorrhage at Baptist Health System

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Baptist Health System, San Antonio, Texas

Background: Kcentra is a 4-Factor Prothrombin Complex Concentrate (4F-PCC) that is FDA approved for the urgent reversal of warfarin in patients with acute major bleeding. Baptist Health System (BHS) created a protocol using the Guidelines for the Reversal of Antithrombotics in Intracranial Hemorrhage (ICH). The protocol covers reversal of warfarin and Factor Xa inhibitors. The guidelines recommend the use of 4F-PCC and vitamin K 10 mg IV for reversal of warfarin and 4F-PCC 50 units/kg for reversal of Factor Xa inhibitors.

Objective(s): To evaluate the use of 4F-PCC at BHS and assess compliance with the "BHS Intracranial Hemorrhage Emergency Reversal Orders of Warfarin and Novel Oral Anticoagulants" protocol.

Method(s): Patients were identified through a medical record search for patients ³ 18 years old who received 4F-PCC at BHS from January 1, 2018 to December 31, 2018. Patient demographics, 4F-PCC indication and dose, INR, vitamin K usage and outcomes were recorded.

Result(s): Forty-five of the eighty-four patients that received 4F-PCC had a diagnosis of ICH. Warfarin was the most common anticoagulant reversed (42%), followed by apixaban (33%). Twelve of fifteen doses of 4F-PCC were appropriate for reversal of warfarin. Only 53% of patients receiving 4F-PCC for warfarin reversal received the recommended dose of vitamin K; 4 warfarin patients received no vitamin K.

Conclusion(s): The results suggest that pharmacists and physicians may benefit from education on the protocol. Creating a 4F-PCC order set would be beneficial to improve physician compliance and limit inappropriate uses.

Disclosure(s): This author has nothing to disclose.

VIEW POSTER

Y1-06: Does Sugammadex Reduce PACU Length of Stay in Patients Undergoing Orthopedic Surgery?

AL Dietert, KM Costiloe, JR Tyler
CHRISTUS Trinity Mother Frances Hospital, Tyler, Texas

Background: Reversal of neuromuscular blockade (NMB) has traditionally been accomplished with neostigmine. However, ample data support the use of sugammadex to reduce time from administration to a train of four (TOF) ratio <0.9 compared to neostigmine. Fewer studies have examined sugammadex's impact on the time spent in the post-anesthesia care unit (PACU), and the data is conflicting.

Objective(s): To evaluate the impact of sugammadex versus neostigmine on PACU length of stay in patients undergoing orthopedic surgery

Method(s): A retrospective cohort analysis of patients undergoing orthopedic surgery was conducted. The historical group consisted of patients receiving neostigmine in the six months prior to the addition of sugammadex to the OR automated dispensing system. Patients were chosen for the sugammadex group after it was available in each OR room. Primary endpoint was duration of PACU stay. Secondary endpoints included duration of emergence time, defined as surgery end time to anesthesia end time, and rates of PACU re-intubation.

Result(s): 976 neostigmine cases and 60 sugammadex cases met inclusion criteria. Patient demographics were similar between groups. PACU time was not significantly different between neostigmine and sugammadex (81.7 min; 75.2 min, p=0.18), nor was emergence time (12.5 min; 14.4 min, p=0.08). No PACU re-intubations occurred in either group.

Conclusion(s): Though sugammadex may provide a faster NMB reversal, it does not appear to reduce the amount of time spent in PACU compared to neostigmine in orthopedic surgery patients. Considering the high drug costs associated with sugammadex, its use may not be preferred in this patient population.

Disclosure(s): I and my co-authors have no relevant conflicts of interest.

VIEW POSTER

Y1-07: Evaluation of Adherence to the Infectious Diseases Society of America and Society for Healthcare Epidemiology of America Clinical Practice Guidelines for *Clostridium difficile* Infections

JB Huynh, NA Akuffo, UJ Mbadugha, GO Udeani
Corpus Christi Medical Center, Corpus Christi, TX

Background: Current guidelines have established new treatment recommendations for an initial *Clostridium difficile* infection (CDI) utilizing either vancomycin or fidaxomicin. Metronidazole is no longer the drug of choice for non-severe CDI due to the risk of accumulation and irreversible neurotoxicity.

Objective(s): The goal of this study is to evaluate the adherence to the 2018 clinical practice guidelines for CDI.

Method(s): This is a retrospective chart review of CDI at Corpus Christi Medical Center. The study period is from February 15, 2018 to August 15, 2018. EMR was used to review for demographics, laboratory, and clinical data (PMH,

current and past use of antimicrobials, relevant medications including probiotics, laxatives, acid-suppressing agents, and narcotics), and treatment based on the first-episode and recurrence(s).

Result(s): Preliminary results included the assessment of 60 patients. There were 51 out of 60 patients (85%) being treated for their first-episode of CDI. Therapy appeared to be appropriate in 10 of 60 (17%) based on their first-episode. It appears that patients who had fulminant CDI or recurrence(s) were not treated appropriately.

Conclusion(s): Based on preliminary data, on average most patients are not receiving the appropriate treatment based on their first-episode or recurrence(s). Most patients (85%) in this study was being treated for their first-episode. Only 17% received the appropriate therapy based on their first-episode (non-severe and severe cases). None of the patients who had fulminant CDI or recurrence(s) received the appropriate therapy.

Disclosure(s): JB Huynh has nothing to disclose, NA Akuffo has nothing to disclose, UJ Mbadugha has nothing to disclose, GO Udeani has nothing to disclose.

VIEW POSTER

Y1-08: Assessment of Weight-Based Dosing of Fluconazole in Candidemia

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CHI St. Luke's Baylor St. Luke's Medical Center, Houston, Texas

Background: The Infectious Diseases Society of America (IDSA) guidelines recommend fluconazole 800 mg (12 mg/kg) loading dose, followed by 400 mg (6 mg/kg) daily dose for candidemia in nonneutropenic patients. Based on previous pharmacokinetic studies of fluconazole, it is pertinent for patients to receive appropriate dosing for optimal therapeutic response. Inappropriate antifungal therapy has been linked to increased mortality and prolonged length of stay.

Objective(s): To evaluate fluconazole dosing for candidemia and assess inappropriate doses of fluconazole and its effect on clinical outcomes.

Method(s) or Procedure(s): This study is a single-center retrospective chart review of patients with positive blood cultures with *Candida* species from January 2016 through December 2017 at BSLMC.

Result(s): A descriptive analysis of 38 patients who received fluconazole for candidemia was performed. The majority of patients (84%) received micafungin as an empiric antifungal agent. Of 38, three patients (8%) received the appropriate loading dose of fluconazole, and 16 patients (42%) received > 6 mg/kg dosing. Treatment failure occurred in one patient (3%) who did not receive a loading dose. Attributable mortality occurred in two patients (13%) who received ≥ 6 mg/kg dosing and in one patient (5%) who received < 6 mg/kg dosing.

Conclusion(s): It was difficult to correlate inappropriate fluconazole dose with treatment failure and attributable mortality. However, considering that this was a small sample, further investigations with a larger sample size may be necessary to further elucidate these findings.

Disclosure(s): The authors of this presentation have no disclosures concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

VIEW POSTER

Y1-09: Dosing and Monitoring of Vancomycin therapy using Area-Under the Curve to Minimum Inhibitory Concentration Ratio vs. Trough-Based Measurements

N Johnson, J Head, G Udeani, S Surani
Corpus Christi Medical Center, Corpus Christi, Texas

Purpose: The primary objective is to assess if a dosing regimen targeting an AUC:MIC ratio of 400-600 mcg*hr/mL (using an assumed MIC of 1) can reduce the likelihood of adverse drug events, at similar rates of cure, in patients requiring treatment with vancomycin.

Method(s): Retrospective cohort study of two subsets of patients treated with vancomycin. The first cohort was dosed using goal trough concentrations based on the infection. The second cohort was dosed using an AUC:MIC ratio of 400-600 mcg*hr/mL. All patients had troughs measured at steady-state and dosing was adjusted based on trough data.

Result(s): Preliminary data using 30 patients in each cohort showed a median increase in serum creatinine (SCr) of 9.74% over their baseline measurement when targeting an AUC:MIC ratio of 400-600, while the patients utilizing traditional trough-based targets experienced a median SCr increase of 18.33%. Furthermore, trough measurement times in the AUC:MIC cohort deviated from the "true trough" time by a median 30 minutes, while the patients in the trough cohort deviated by a median 52.5 minutes. Paradoxically, targeting the AUC:MIC ratio vs. troughs resulted in both higher AUC:MIC ratios (485 vs 432 mcg*hr/mL, respectively) and higher troughs (13.21 vs. 12.61 mcg/mL, respectively).

Conclusion(s): Utilizing a dosing regimen targeting the AUC:MIC ratio was associated with higher overall AUC:MIC ratios and troughs, but also more predictable kinetics, resulting in smaller deviances from baseline serum creatinine. A higher sample size to achieve comparable deviations from trough draw times is needed prior to making final conclusions.

Disclosure(s): The authors of this presentation have no disclosures concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

VIEW POSTER

Y1-10: Prescribing Patterns and Cost Analysis of Sugammadex at a Large Academic Health System

JD Kanter, EJ Bergeron
Harris Health System, Houston, Texas

Background: Bridion® (sugammadex) injection is an agent that is approved for the reversal of rocuronium- or vecuronium-induced neuromuscular blockade in patients undergoing surgery. Sugammadex was added to the Harris Health System (HHS) formulary in 2017 when the acquisition cost of neostigmine became substantially high, making sugammadex a cost neutral treatment option. Since that time, the price of neostigmine has decreased and the use of sugammadex has skyrocketed despite the restrictions that govern its use.

Objective(s): To assess Harris Health System utilization of sugammadex and evaluate cost efficiency.

Method(s): IT provided a retrospective inpatient EPIC utilization report from August 1, 2018 through December 1, 2018 for all patients 18 years of age and older prescribed sugammadex. Data that was collected includes patients name, MRN, order date and time, administration date and time, dose, frequency, service or department and ordering physician. Cost data was provided by the drug distributor.

Result(s): In the timeframe, 1025 unique patients received sugammadex. Between the two hospitals and one outpatient surgery center, there were 1065 orders for 200 mg vials and 16 orders for the 500 mg vials. The report indicates 190 orders (18%) for multiple 200 mg vials being dispensed in instances where doses were between 201 and 400 mg, resulting in $2,850 higher costs.

Conclusion(s): Of the patients who received sugammadex, inappropriate vial sizes were selected for 18% of patients, resulting in higher inventory cost. Pharmacy recommends educating prescribers of the available products and providing information about the cost impact of selecting inappropriate vial sizes.

Disclosure(s): JD Kanter and EJ Bergeron have nothing to disclose.

VIEW POSTER

Y1-11: Medication Safety of Sugammadex at a Large Academic Health System

JD Kanter, EJ Bergeron
Harris Health System, Houston, Texas

Background: Bridion® (sugammadex) injection is FDA indicated for the reversal of rocuronium- or vecuronium-induced neuromuscular blockade in patients undergoing surgery. Sugammadex may decrease the serum concentration of contraceptives. Therefore, female patients should use an additional, non-hormonal contraceptive method during and for 7 days following treatment.

Objective(s): To assess contraceptive education for patients following sugammadex administration at Harris Health System.

Method(s): IT provided a retrospective Inpatient EPIC utilization report from August 1, 2018 through December 1, 2018 for all patients 18 years of age and older prescribed sugammadex. Data that was collected includes patients name, MRN#, order date and time, administration date and time, dose, frequency, service or department, any documentation of medication counseling, and ordering physician.

Result(s): In the timeframe, 1025 unique patients received sugammadex. A sample of 100 randomly selected individuals was used to assess contraceptive counseling, which included 40 males and 60 female patients. In this sample 32 of the female patients were “child-bearing age”. Patient records indicate that only 5 individuals (16% of the 32 females) received counseling following administration. It should be noted that 14 of the patients without counseling had a gynecological related encounter. This includes hysterectomy, post-partum, ectopic pregnancy, nephrostogram, salpingectomy, vaginal myomectomy, and ureteral stones. The other 13 patients without counseling did not have a documented reason.

Conclusion(s): Female patients in childbearing years are not consistently receiving counseling as recommended by the manufacturer. There is currently a recommendation by our institution's stakeholders to add a counseling section to the after-visit summary for patients who receive sugammadex.

Disclosure(s): JD Kanter and EJ Bergeron have nothing to disclose.

VIEW POSTER

Y1-12: Heparin Requirements in Patients with Impella® and TandemHeart® Support Devices

RP Kessinger, MC Mousavi, EB Yin
CHI Baylor St. Luke’s Medical Center, Houston, Texas

Background: Devices such the Impella® and TandemHeart® provide support to patients with refractory cardiogenic shock. Patients are managed with local heparin flowing through the device as well as systemic heparin to prevent thrombus formation. Managing multiple heparin infusions can be challenging, and the device manufacturers provide limited guidance.

Objective(s): The objective is to examine safety and efficacy outcomes and heparin requirements for the current TandemHeart® and Impella® heparin protocols in order to determine what improvements can be made.

Method(s): This is a retrospective chart review of 47 patients from January 2018 to December 2018. Heparin requirements were assessed from post-operative hours 6 to 48 for each device.

Result(s): For the Impella®, the average device heparin rate was 360 units/hour (45% of the total) and the average systemic heparin rate was 452 units/hour (55% of the total); 48% of the patients had a systemic heparin rate of 0 units/hour at 6 hours post-implant. For the TandemHeart®, the average device heparin rate was 829 units/hour (81% of the total) and the average systemic heparin rate was 239 units/hour (19% of the total); 89% of patients had a systemic heparin rate of 0 units/hour at 6 hours post-implant. TandemHeart® patients had a higher rate of supra-therapeutic activated partial thromboplastin times even when no systemic heparin was started.

Conclusion(s): The current order set has a higher initial rate for systemic heparin than is seen in practice. In addition, a TandemHeart® infusate protocol would allow easier adjustment of device heparin concentration.

Disclosure(s): Authors have no conflicts of interests regarding personal or financial relationships with commercial entities that may have influenced the content or subject matter of this presentation.

VIEW POSTER

Y1-13: Impact of Discontinuation of Home Neuropsychiatric Medications on Sedation Management in Ventilated Patients

P Lee, M Narayanan
Memorial Hermann Memorial City Hospital, Houston, Texas

Background: Home medications are commonly discontinued in critically ill patients in the ICU due to focus on acute care, hemodynamic instability or gastrointestinal dysfunction. When neuropsychiatric medications are discontinued abruptly in ICU patients, it can lead to neurotransmitter imbalances causing neuropsychiatric discontinuation syndrome causing nervousness, anxiety and agitation. The withdrawal symptoms can occur within 24 hours to 72 hours. Increased risk of agitation due to discontinuation of neuropsychiatric medications may impact the sedation management in ventilated patients.

Objective(s): To evaluate the impact of discontinuation of home neuropsychiatric medications on sedation management in ventilated patients.

Method(s): A retrospective chart review from January 2015 to December 2018. Inclusion criteria are adult patients (≥ 18 years old) admitted to medical ICU who are mechanically ventilated for more than 48 hours and are on home neuropsychiatric medications. Patients who require deep sedation (RASS score -4 to -5), chronic ventilation prior to admission, severe anoxic brain injury, comfort care, extubated, discharged, expired less than 48 hours within ICU admission will be excluded. The primary outcome is the proportion of time in sedation range (RASS score -2 to 0). The secondary outcomes are the duration of mechanical ventilation and prevalence of delirium (CAM-ICU score). Other outcomes are ICU LOS, hospital LOS, self-extubation, proportion of time of sedative/ opioid escalated or deescalated and total sedation requirement based on the amount of sedative/opioid doses were used. Statistical analysis of Chi-square, Mann-Whitney and $p < 0.05$ for statistical significance will be performed using Excel software.

Result(s): N/A

Conclusion(s): N/A

Disclosure(s): P Lee and M Narayanan have no financial disclosure.

VIEW POSTER

Y1-14: Effects of Prescribing a COPD Rescue Kit on Hospital Readmission Rates

CE Loving, J Dib, W Waters
CHRISTUS Trinity Mother Frances Tyler, Texas

Background: Chronic Obstructive Pulmonary Disease affects more than 16 million Americans. Medical costs for this disease are exceptionally high with an average cost of $11,000 per readmission. Currently, 30-day readmissions are estimated to be 7.1% for COPD diagnosis, and 20.5% for all-cause readmission.
Objective(s): This study aims to assess the effectiveness of COPD rescue kits in reducing readmission rates.

Method(s): The COPD Rescue Kit trial is both a retrospective and prospective review of patients who were hospitalized with a COPD exacerbation. The control group included patients who did not receive the kits from October 2017 to February 2018. These patients were evaluated against those who were given these kits once the rescue kit program was initiated in October 2018. The COPD rescue kit includes a 5-day supply of prednisone, spacer, MDI albuterol inhaler, and symptom zoning chart. Chi-square tests were used for the comparative analysis of different variables.

Preliminary Result(s): The primary outcome of all-cause readmissions at 30 days was 24% in the control and 13% in patients that received the intervention ($p<0.07$). However, the secondary outcome of 30-day readmissions based on COPD exacerbations was 15% in the control and 6% in patients that received the intervention ($p<0.04$). Both 90-day readmission rate data is ongoing and still being collected.

Conclusion(s): The COPD Rescue Kits showed a decrease in both all-cause and COPD hospital readmissions rates at 30 days, but the COPD readmission rates were the only group to show statistical significance thus far.

Disclosure(s): CE Loving, J Dib, and W Waters have nothing to disclose.

VIEW POSTER

Y1-15: Impact of Urinalysis Culture Screen and Reflex Procedure on Pharmacoeconomics of Antimicrobial Therapy

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Corpus Christi Medical Center, Corpus Christi, Texas

Background: A urine analysis culture screen and reflex procedure was implemented at Corpus Medical Christi Medical Center in January 2018. It was implemented based on a reflex algorithm with an objective to reduce the number of unnecessary urine cultures, reduce antibiotic use, duration of therapy and laboratory workload and expense.

Objective(s): The objective of this study is to analyze the economic impact of the implemented urinalysis culture screen and reflex procedure.

Method(s): This was a retrospective study. Urinalysis culture data was collected monthly using the implemented urinalysis screen and reflex procedure where microscopic analysis is performed in patients with white blood cells (WBC) >10/hpf and epithelial cells <100/lpf.
Urinalysis data post implementation was assessed for both volume and economic impact. Pre and post implementation antimicrobial therapy data was collected and assessed for pharmacoeconomic impact. Data was also analyzed statistically for difference in duration of therapy. The study periods were January to September 2017 and January to September 2018.

Result(s): Monthly data demonstrated a 50-62% decrease in the number of urine cultures performed and a 42-52% decrease in the total expenditure on urine cultures; an overall savings of $15,907.36. The total days of therapy decreased by 235 days ($p<0.0001$); an estimated savings of $164,500 in hospital costs.

Conclusion(s): Implementation of the reflex procedure demonstrated a decrease in volume of cultures performed, a positive economic impact within the laboratory, and on antimicrobial therapy.

Disclosure(s): The authors of this presentation have nothing to disclose.

VIEW POSTER

Y1-16: Evaluating the Effectiveness of an Educational Tool in Assisting Pharmacists in Cancer Treatment Management

KS Padolina, S Davis, K Reynolds
Medical City Arlington (MCA), Arlington, TX

Background: Chemotherapy regimens are often complex and composed of multiple medications. Pharmacists play a crucial role in managing cancer treatment and chemotherapy-related adverse events. However, coordinating a chemotherapy regimen can be challenging.
Objective: The purpose of this study was to determine the effectiveness of an educational tool in enhancing a pharmacist's knowledge and skills in managing cancer treatment and drug-related adverse events.

Method(s): All pharmacists at MCA were asked to participate in the study. Participation was voluntary, and volunteers were neither rewarded nor penalized regardless of their participation or results in the study. The study period was 10 weeks. The volunteers created a unique code in order to both link their initial and final assessment results and maintain confidentiality. At the beginning of the study period, participants completed the initial assessment. The assessment was a fourteen multiple-choice questionnaire administered electronically via SurveyMonkey. After the completion of the initial survey, the participants were provided the educational tool for their use. At the end of the study period, the participants completed the same assessment administered at the beginning of the study period. The results were compared to establish the effectiveness of the educational tool.
Result(s): Eight pharmacists participated in the study. Of the fourteen questions, nine (64.3%) had an increase, three (21.4%) remain unchanged, and two (14.3%) had a decrease. The average score of the initial assessment was 73% while the average score of the final assessment was 85%, demonstrating a difference of 12%.

Conclusion(s): The use of the educational tool increased the participants' overall assessment average.

Disclosure(s): KS Padolina, S Davis, and K Reynolds have nothing to disclose.

VIEW POSTER

Y1-17: Medication Use Evaluation of Ketamine in Patients on Extracorporeal Membrane Oxygenation Support

LM Rakouki, MC Mousavi, LC Davis

CHI St. Luke's Health Baylor St. Luke's Medical Center, Houston, Texas

Background: Ketamine is used to provide sedation to patients that require surgery, rapid intubation and in special cases, patients that require extracorporeal membrane oxygen (ECMO) support. Ketamine works by blocking N-methyl-D-aspartate (NMDA) receptors. Patients that require ECMO are challenging to sedate, as they often require higher doses of sedatives to maintain sedation. Ketamine is a favorable option because of its analgesic, amnestic and bronchodilatory properties. Additionally, it does not reduce blood pressure or gastrointestinal motility, as do other sedative agents.

Objective(s): To evaluate prescribing practices of ketamine in patients on ECMO and to investigate its effects on vasopressor and sedative requirements.

Method(s): This is a retrospective chart review of patients who received ketamine from January 1, 2016 through November 1, 2018 at BSLMC. A list of patients was obtained using Slicer Dicer in EPIC.

Result(s)/Conclusion(s): An analysis of 26 patients on ECMO and receiving ketamine continuous infusion was performed. The majority of the patients 58% were on veno-arterial ECMO. The mean starting infusion rate for ketamine was 0.29 mg/kg/hour and the mean maximum infusion rate was 0.46 mg/kg/hour. The median duration of use for ketamine was 51 hours and the median cumulative dose was 1934 mg. The average heart ranged (84-89) beats per minute and the average mean arterial pressure ranged (70-76) mmHg. The mean dose from baseline for both vasopressors and sedative agents trended down after the addition of ketamine. A larger sample size is needed to assess the role of ketamine in this patient population.

Disclosure: The authors of this presentation have no disclosures concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

VIEW POSTER

Y1-18: Obesity as a Predictor for Nephrotoxicity in Patients Receiving Vancomycin/Piperacillin-Tazobactam Therapy

DN Rhoads, V Ta, JR Tyler
CHRISTUS Trinity Mother Frances Hospital, Tyler, TX

Background: Obesity has continued to increase in prevalence in the US, and the treatment of infections in this population remains a challenge due to lack of clear dosing recommendations. Vancomycin (VAN) use has been linked to higher incidences of nephrotoxicity in obese patients. Also, piperacillin-tazobactam (TZP) use in combination with VAN has led to higher rates of nephrotoxicity. However, little is known about the relationship between obesity and nephrotoxicity in combination therapy.

Objective(s): This study aims to determine if obesity is a risk factor for nephrotoxicity in patients receiving concomitant VAN-TZP therapy.

Method(s): This was a retrospective, single center study of patients who received concomitant therapy with VAN-TZP for at least 48 hours. Patients were stratified into two groups: those with BMI greater than 30 kg/m2 (obese) and those less than 30 kg/m2 (non-obese). Patients with severe renal impairment (creatinine clearance < 20 mL/min) or on renal replacement therapy were excluded.

Result(s): 655 patients met inclusion. There was no significant difference in nephrotoxicity between the two BMI groups. There was also no difference in length of stay, nor time to nephrotoxicity, but there was a slightly higher mean initial vancomycin trough level in the obese cohort.

Conclusion(s): Obesity was not a predictor of nephrotoxicity when treating patients with VAN-TZP. Our results do mirror previous studies that show VAN-TZP has a significant potential for causing kidney injury.

Disclosure(s): Authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

VIEW POSTER

Y1-19: Utilizing an Electronic Health Record System to Identify Key Areas for Improving Timely Antibiotic Administration for Early-Onset Sepsis Within the Neonatal Golden Hour

I Rodriguez Jr, A Barron-Clark, J Tyler, J Morrison, BH Morris
CHRISTUS Trinity Mother Frances Hospital Tyler, Texas

Background: The neonatal golden hour is the first hour of life for a newborn, and entails stabilizing the patient to decrease the incidence of negative short-term and long-term outcomes associated with prematurity and low birth weight. Timely administration of antibiotics for early-onset sepsis (EOS) is imperative as delayed antibiotic administration has been associated with poorer outcomes.

Objective(s): This registry study will attempt to identify key areas for process improvement to decrease time to antibiotic administration within the neonatal golden hour.

Method(s): The electronic health record system was utilized to identify neonates who received antibiotics for EOS in the neonatal intensive care unit (NICU). Only patients who were born at CHRISTUS Mother Frances Hospital Tyler and received ampicillin and gentamicin within 24 hours were considered for the study. Newborns transferred from other facilities or units outside of the NICU were excluded. The processes occurring from the time of birth to the time of antibiotic administration were examined Regression models will be utilized to identify key areas associated with delays in timely antibiotic administration.

Preliminary Result(s): A total of 45 patients received ampicillin and gentamicin for EOS after NICU admission within the designated time period. Of these patients, 29 met all inclusion and exclusion criteria. The mean antibiotic administration time from birth was 322 minutes with a range of 116 to 1,266 minutes. Data analysis is currently ongoing.

Conclusion(s): The results from this study will be utilized to develop a process improvement plan.

Disclosure(s): Authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

VIEW POSTER

Y1-20: Medication Use Evaluation of Sugammadex at a Large Academic Medical Center

CM Schardt, KS Putney, SE Michaud
CHI St. Luke's Health Baylor St. Luke's Medical Center, Houston, Texas

Background: Historically, acetylcholinesterase inhibitors (e.g. neostigmine) have been used to reverse the actions of neuromuscular blocking agents (NMBAs) by inhibiting the breakdown of acetylcholine and allowing competition at the neuromuscular junction. Sugammadex reverses the effect of the non-depolarizing neuromuscular blocking agents, rocuronium and vecuronium, by forming a complex to reduce the amount of free NMBA available to bind acetylcholine receptors. Sugammadex has been shown to induce rapid recovery from moderate and deep neuromuscular blockade. Compared to neostigmine, sugammadex reverses NMBAs significantly faster at both 2 mg/kg and 4 mg/kg dosing.

Objective(s): To evaluate the appropriate utilization of sugammadex at a large academic medical center for the reversal of neuromuscular blockade and the associated outcomes at our institution.

Method(s): This project is a single-center retrospective chart review of all patients who received at least one dose of sugammadex between January 1, 2017 and January 31, 2019. A list of patients was obtained from SharePoint Drug Utilization Report Tool and EPIC database.

Result(s): An analysis of 104 sugammadex orders was performed. The most common indication for use was for dense residual block after conventional reversal had been given (40.3%). The most common unapproved indication for use was for dense residual block as a first line reversal agent (22.1%).

Conclusion(s): Findings suggest the restricted indications for the use of sugammadex are not always followed at our institution. A refresher on the approved indications as well as encouraging documentation of the indication may be beneficial.

Disclosure(s): The authors of this presentation have no disclosures concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

VIEW POSTER

Y1-21: Deep Venous Thromboembolism Prophylaxis in Post-Cardiac Surgery Patients

I Won, MC Mousavi, EB Yin
CHI St. Luke's Health Baylor St. Luke's Medical Center, Houston, Texas

Background: Anticoagulants are widely used for thromboprophylaxis in a broad range of surgical and medical patients. General surgical patients are at high risk of venous thrombosis. The two anticoagulants primarily used at our institution are heparin and enoxaparin. In open chest surgery patients, the optimal time to start deep venous thromboembolism (DVT) prophylaxis is controversial. There are no current studies investigating the optimal time to first dose of DVT prophylaxis in post-cardiac surgery using heparin and enoxaparin.

Objective(s): To evaluate DVT prophylaxis prescribing patterns post-cardiac surgery and associated outcomes at CHI St. Luke's Health Baylor St. Luke's Medical Center (BSLMC).

Method(s): This study is a single-center retrospective chart review of patients who underwent cardiac surgery (CABG, TAVR, valvular procedure, or a combination of either) from March 11, 2018 to September 11, 2018.

Result(s): A total of 100 patients were included. The average number of days from the procedure to the start of DVT prophylaxis was 3.5 days. The majority of patients (73%) were started on an anticoagulant with the most common agent being enoxaparin (71.2%). Of the patients started on DVT prophylaxis, bleeding rates were 2.7% and thrombosis rates were 6.8% after the agent was initiated.

Conclusion(s): Findings demonstrate that most ordering services wait for the removal of chest tubes and pacing wires before initiating DVT prophylaxis and was associated with low bleeding rates. There are opportunities for

improvement in the use of non-pharmacological agents. Pharmacists should be proactive in ensuring DVT prophylaxis gets started in this patient population.

Disclosure(s): The authors of this presentation have no disclosures concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

VIEW POSTER

Y1-22: Impact of a Pharmacy Technician Medication History Program on the Pharmacy Enterprise

E Wucki, T Chau, M Shih, R Cox
Memorial Hermann Health System, Houston, Texas

Background: Based on data obtained from the MATCH trial, patients admitted to an inpatient setting without having a medication history completed before being seen by a physician saw a 35% prevalence in medication errors. Medication errors not only pose a danger to patient safety, but also require additional expenditure of physician and pharmacist resources to correct after the fact. Literature supports the use of medication history technicians to help provide more accurate medication histories, yet the financial implications of medication history technicians is unclear.

Objective(s): The objective is to determine the quality and financial outcomes associated with a medication history technician obtaining a medication history on admission.

Method(s) or Procedure(s): Medication histories completed by either a nurse or physician and then later by a technician were reconciled for discrepancies. Variations in these histories were compiled and categorize by both error type and severity. Financial information based on literature reported cost of medication errors was used to extrapolate the projected financial savings of technician driven medication histories.

Result(s): Research in progress. A preliminary review of 60 charts indicated the average number of identified discrepancies is 3.4 discrepancies per history. Estimated financial savings was estimated at 230 dollars per history.

Conclusion(s): Preliminary outcomes seem to indicate a favorable trend in accuracy when analyzing medication histories completed by technicians versus standard of care.

Disclosure(s): None.

VIEW POSTER

Category: Resident/Fellow/Post-Graduate – PGY2

Y2-01: Intravenous Push Antibiotics in the Emergency Department

NA Correll, C Cocchio
CHRISTUS Mother Frances Hospital, Tyler, Texas

Background: Current guidelines recommend antibiotics within one hour of arrival to emergency department. Centers for Medicare and Medicaid implemented a bundle of actions required within three hours after diagnosis of sepsis or septic shock. If not met within the time period, it could be detrimental to patient and hospital. Recently,

hurricanes caused issues with manufacturing and distribution of medications and related supplies, creating a shortage of small-volume intravenous fluids.

Objective(s): The objective is to demonstrate that implementation of an intravenous push antibiotic protocol would improve time from provider order to administration for emergency department patients diagnosed with sepsis.

Method(s): Retrospective, single center, observational study that includes review of 120 computerized patient records of patients in emergency department being treated for sepsis who received cefepime, ceftriaxone, cefuroxime, meropenem, or aztreonam. Comparison groups include patients who received antibiotics prior to intravenous push initiation between July and December 2017 and patients who received antibiotics after intravenous push initiation between March and August 2018. The difference in administration time will be compared using student's t-test.

Result(s): Time from physician order to patient administration was not significantly different for intravenous piggyback antibiotics (41 minutes; 0:00-5:39) compared to intravenous push antibiotics (40 minutes; 0:10-2:47). (p= 0.129318)

Conclusion(s): There was no statistically significant difference in time between physician order and patient administration between antibiotics prepared in intravenous piggybacks versus intravenous push. Prior to intravenous push administration, most intravenous piggyback antibiotics were already stored in Pyxis machines in the emergency department for ease of access.

Disclosure(s): none

VIEW POSTER

Y2-02: Impact of Health System Specialty Pharmacy Services in an Affiliated Digestive Disease Center

I Rangel, J Rogers, R Cox, M Green, D Wallace
Memorial Hermann, Houston, TX

Background: Specialty medications account for 50% of the total drug cost in the United States; a 36% increase from 2015. By 2020, this could reach $400 billion with specialty medications accounting for up to 65% of annual spend. As the cost of healthcare continues to rise, Health System Specialty Pharmacies (HSSPs) have the opportunity to improve quality of care and contain patients' cost through an integrated specialty pharmacy program.

Purpose: The primary objective of this study is to evaluate the impact of a specialty pharmacist on the ability to access direct antiviral therapy in patients with HCV.

Method(s): A retrospective cohort study was conducted for Memorial Hermann patients who visited the Ertan Digestive Disease Center pre and post implementation of a specialty pharmacist. Patients were excluded if they were less than 18 years of age,were co-infected with HIV and HCV, and/or if they were not prescribed direct acting antiviral therapy. The primary outcome of this study is to determine time to treat for patients with HCV. Secondary endpoints include sustained virologic response, drug-drug interactions identified and appropriately managed, and time to treat by insurance type. The data will be utilized to identify opportunities for expanding specialty pharmacy services within the Memorial Hermann Health System.

Result(s): In progress

Conclusion(s): In progress

Disclosure(s): The authors of this presentation have nothing to disclose

VIEW POSTER

Y2-03: The Use of Lean, Six Sigma Methodology to Optimize Expiration Dating in the Automated Dispensing Cabinet

EM Villanueva, A Couriel, OO Eshleman, DE Wilson, S Varghese, T Huerta, E Barrera, O Oriakhi
Harris Health System, Houston, TX

Background: Audits performed during the months of May and June of 2018 at Ben Taub Hospital, found approximately 15% of Automated Dispensing Cabinet (ADC) pockets containing inaccurate dates for medications, defined as the medication expiration before the date on the machine. This presented an opportunity to improve inventory management and accuracy for proper outdated medication removal. In this study, we examined our workflow to optimize our processes.

Objective(s): Reduce the percentage of ADC pockets at Ben Taub Hospital containing inaccurate recorded expiration date to 10% or less.

Method(s): We evaluated 328 pockets to determine the number of pockets with inaccurate recorded expiration date at baseline. Lean Six Sigma methodology was used to analyze and improve the evening batch replenishment workflow. Workflow modifications were implemented as follows: the number of batch pulls was reduced with the smallest batch to be performed separately; two technicians were selected to manage ADC par levels and which medications to stock in ADC. A post-implementation audit was conducted to determine the success of our interventions.

Result(s): The post-implementation audit examined 299 pockets and found eleven pockets contained medication expiring before the recorded date. Overall, 3.6% of the examined ADC pockets contained medication expiring before the date recorded on the machine post-implementation, a p-value less than 0.05. Additionally, a workload reduction in the number of medications pulled during the evening batch replenishment decreased by 25% from 800 to 600.

Conclusion(s): The new process decreased the number of medications expiring before the date recorded on the ADC.

Disclosure(s): The authors of this presentation have nothing to disclose.

VIEW POSTER

Y2-04: The Impact of Board-Certified Pharmacists on the Reduction of Hemoglobin A1C in Uncontrolled Diabetic Patients

EM Villanueva, A Couriel, C Munoz
Harris Health System, Houston, TX

Background: The demand for pharmacists with specialized training increases as patient and treatment regimens become more complex. Within the past 10 years, the number of board-certified (BPS) pharmacists has increased. As of February 2019, there are 12 distinct board certification specialties. The perceived utility and financial investment may present a barrier to seeking board certification which may be overcome by demonstrating improved patient outcomes. Harris Health System has over 15 ambulatory clinics, each with at least one pharmacist who provides medication management services for patients with diabetes and other chronic health conditions. We examined the impact of board certification on the reduction of hemoglobin A1C (A1C) levels for patients with diabetes.

Objective(s): Determine impact on A1C reduction for pharmacist with and without BPS certification managing patients with uncontrolled diabetes.

Method(s): This was a randomized, multicenter retrospective study. Two groups were compared, pharmacists with and without board certification. Four hundred patient charts were reviewed, 200 each from BPS certification and non-BPS group. Baseline A1C as well as A1C three to four months after the first pharmacist encounter were collected.

Result(s): All patients managed by a pharmacist had a baseline hemoglobin A1C of 9% or greater and experienced a reduction in A1C. The mean decrease in hemoglobin A1C was 1.73% and 1.29% in the BPS and non-BPS groups, respectively. The p-value was 0.02.

Conclusion(s): On average, patients managed by BPS pharmacists experienced a greater hemoglobin A1C reduction compared to non-BPS pharmacists.

Disclosure(s): The authors of this presentation have nothing to disclose.

VIEW POSTER

Category: Display Only

D-01: Naloxone Accessibility Under Standing Orders from Texas Community Pharmacies and the Efficacy of Brief Academic Detailing on Improving Accessibility

W Godinez, R Gandhi, JK Contreras, I Alfaro, D Giang, M Tran, J Chan, LG Hill, KR Reveles, KE Evoy
University of Texas at Austin College of Pharmacy, Austin, Texas

Background: Texas' 2015 naloxone access law allows pharmacists/pharmacies to develop standing orders in which prescribers may authorize pharmacists to dispense naloxone to patients without a prescription.

Objective(s): This two-part study evaluated naloxone accessibility under standing order from Texas chain pharmacies and whether education of pharmacists improved naloxone accessibility.

Method(s): Pharmacy students conducted telephone audits of all 2,317 CVS, Walgreens, HEB, and Walmart pharmacies in Texas. Utilizing a script, they spoke to pharmacists while representing themselves as potential overdose responders. Two months after the audit, pharmacy students conducted in-person education regarding overdose prevention to the San Antonio/Austin pharmacies that indicated they were not willing to dispense naloxone without a prescription. Students informed pharmacists about naloxone standing orders and naloxone use, provided handouts for off-duty pharmacists as well as a flyer about naloxone for patient display. An identical telephone audit was conducted 1-2 weeks post-education.

Result(s): Response rate was 100%, with the cohort representing 44.3% of Texas community pharmacies. Among audited pharmacies, 83.7% indicated they would dispense naloxone without prescription, and 76.4% currently stocked naloxone. Among the 49 pharmacies receiving education, 37 (76%) responded appropriately that they would dispense naloxone without an outside prescription after previously having answered incorrectly. Furthermore, more pharmacies receiving academic detailing stocked naloxone post-education (71.4% vs. 51%, P=0.0075).

Conclusion(s): Among Texas chain pharmacies with standing orders, most stocked naloxone and would dispense it without a prescription. Results indicate that student-led education improved naloxone accessibility via standing order.

Disclosure(s): Dr. Evoy reports receiving grant funding from UTHSA Institute for Integration of Medicine and Science, the Kleberg Foundation, and Texas Health and Human Services to conduct opioid overdose prevention trainings. Dr. Hill reports receiving grant funding from the Texas Health and Human Services Commission and donations of branded formulations of naloxone from Kaléo Pharma and Adapt Pharma. The other authors have no conflicts of interest to disclose.

VIEW POSTER

D-02: Operation Naloxone: Interprofessional Overdose Prevention Service Learning Expanded

RA Moton, L Groff, K Nguyen, I Rodriguez, K Evoy
University of Texas Health San Antonio (UTHSA), San Antonio, Texas

Background: Opioid-related deaths are the fastest growing cause of death in the United States. Operation Naloxone is a student-led initiative that hosts community trainings in opioid overdose rescue treatment, as well as increasing access to the opioid reversal agent naloxone.

Objective(s): The goals of this project were to: 1) conduct a train-the-trainer session for UTHSA students; 2) provide trainings and naloxone for populations outside Bexar County; and 3) assess training efficacy.

Method(s): UT Austin College of Pharmacy faculty led a training for UTHSA students. Trained students led three interprofessional overdose prevention trainings for drug rehab center staff, firefighters, and police in rural counties surrounding Bexar County. Naloxone was also provided. Pre- and post- training surveys were administered to attendees to evaluate the impact on knowledge, self-efficacy and attitudes regarding naloxone use and the interprofessional learning experience.

Result(s): 13 UTHSA students were trained to provide naloxone education. Student-led trainings reached 46 community members including police officers, fire fighters, EMTs, and social workers. Results displayed a significant increase in knowledge [(median (IQR)) 37.5% (37.5-62.5) vs. 62.5% (50%-75%), $p<0.0001$], self-efficacy (median 3.5 (3-4) vs. 4.75 (4-5), $p<0.0001$) and attitude on harm reduction scores (3.1 (2.7-4.25) vs. 4 (3.5-5), $p<0.001$). 72 doses of naloxone were distributed to the sites being trained.

Conclusion(s): UTHSA students were trained to provide opioid education and led trainings for community members likely to work with vulnerable populations for rural counties surrounding Bexar County. This study indicates that this train-the-trainer approach was valuable for the community and participating healthcare students.

Disclosure(s): RA Moton, L Groff, K Nguyen are students at both the University of Texas at Austin College of Pharmacy and UT Health San Antonio. I Rodriguez graduated as an RN from the UT Health San Antonio College of Nursing. K Evoy is a current faculty member at both the University of Texas at Austin College of Pharmacy and UT Health San Antonio.

VIEW POSTER

D-03: Improving Opioid Prescribing at a Cancer Hospital Emergency Center

JPG Sanchez, TN Johnson, A Elsayem
The University of Texas MD Anderson Cancer Center, Houston, TX

Background: With increased use of opioids to manage cancer pain, clinicians were educated to better understand the risks of inappropriate opioid therapy and improve pain management with opioids in cancer patients presenting with acute pain or pain crisis. : Baseline data collection showed 26 out of 39 patients opioid naïve patients who received intravenous only therapy did not have contraindications to oral therapy.

Objective(s): This quality improvement project aimed to decrease inappropriately prescribed opioids by 50% during emergency center (EC) pain management.

Method(s): Retrospective baseline data was collected on patients with a chief complaint of pain who were discharged from the EC to assess their pain management. Physicians and nurses were targeted for education. Physicians attended didactic lectures, nurses completed an online course, and an educational poster placed in the EC workroom. Post-educational intervention data was collected on patients that had a chief complaint of pain and were discharged from the EC when education was completed. Inappropriate prescribing was defined as no documented contraindication to oral therapy if only intravenous opioids were given or incorrect doses of opioids ordered based on either cancer pain guidelines for opioid naïve patients or 10-20% of the morphine equivalent daily dose (MEDD) for opioid non-naïve patients. Patients were defined as opioid naïve if they were not on opioids at home and opioid non-naïve if they were. Secondary outcomes included achievement of patients' personal pain goal and prescription monitoring program documentation.

Result(s): From a preliminary sample of 32 patients there were 17 opioid naïve patients and 15 opioid non-naïve patients. 4 out of 17 opioid naïve patients given intravenous therapy only without a contraindication to oral medications; 14 of these patients were discharged without reaching personal pain goal, and 8 did not receive pain score reassessments prior to discharge. None of the 15 opioid non-naïve patients were undertreated based on their MEDD. 9 out of 15 of these patients were discharged without reaching personal pain goal and 6 were discharged without pain score reassessment prior to discharge.

Conclusion(s): Changing opioid prescribing habits will take multiple rounds of educational interventions. The changes proposed are a significant change from previous practice and will require additional time for physicians to adapt to continuously updating information regarding opioid treatment benefits and risks.

VIEW POSTER

D-04: Impact of An Expanded Medication History Program on Patient Care

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Memorial Hermann Memorial City Medical Center, Houston, TX

Background: Medication reconciliation involves comparing the patient's home medication list against the physician's admission, transfer, and/or discharge orders to identify discrepancies. To gather an accurate and comprehensive medication history, medication history technicians rely on multiple sources of medication information including a one-on-one patient/family interview and review of medication vials, medication lists, previous patient admission records, and medication refill histories.

Objective(s): The goal of this project is to highlight the importance of a medication technician throughout the continuum of care and the impact of an expanded coverage on patient care.

Method(s): In 2017, we expanded our medication history coverage from 10 hours a day to ~17 hours a day, with the goal of completing medication histories for all patients being admitted through the ED.

Result(s): The expansion of the program has led to an increase in medication history coverage from 40% of total admissions to 60% of total admissions. Data related to patient care examples such as good catches are collected to determine the accuracy of medication histories completed.

Conclusion(s): Medication history pharmacy technicians are dedicated personnel that can perform thorough and accurate medication histories by gathering information from various sources (patient/family interviews and review of medication vials, medication lists, previous patient admission records, and medication refill histories). Medication history pharmacy technicians have led to a reduction in total cost of care and adverse drug events.

Disclosure(s): The authors have nothing to disclose

VIEW POSTER

D-05: Optimization of Neutropenic Fever Management in Solid Tumors

CM Yocum, TN Johnson, CE Gonzalez, FP Tverdek
University of Texas M.D. Anderson Cancer Center, Houston, TX

Background: Optimal management of neutropenic fever (NF) in the cancer population is key in reducing the morbidity and mortality associated with potentially life-threatening infections. Previous studies and NF guidelines recommend against the empiric use of vancomycin, or other expanded spectrum gram-positive coverage, in NF management unless certain criteria are met. These recommendations are largely due to the fact that gram-negative pathogens are associated with higher mortality rates and are more commonly the causative pathogens. With the implementation of an institutional algorithm, an assessment of current clinical practice, as compared to the guideline, was undertaken to identify opportunities for improvement.

Objective(s): The objective of this quality improvement project is to increase compliance with guideline-directed vancomycin use by 30% in three months.

Method(s): Through retrospective chart review, data was collected to compare clinical practice with this algorithm. Baseline data was reviewed and opportunities for improvement were identified. An AIM statement was created and submitted for approval to the institutional Quality Improvement Assessment Board. Subsequently, clinician interviews/shadowing were performed to characterize the processes of initial management of NF in the emergency center (EC). Once approved, interventions were developed to improve algorithm adherence.

Result(s): Baseline data highlighted that only 46% of empiric vancomycin use, met recommended criteria for empiric use. Through a multimodal intervention approach, post-intervention data was collected to assess impact. There has been preliminary improvement, where 71.4% of vancomycin initiations met an empiric recommendation one month after interventions were implemented and 68% two months thereafter.

Conclusion(s): To be presented at the meeting.

Disclosure(s): The authors have nothing to disclose

VIEW POSTER

D-06: Optimizing Cardiac Monitoring with Administration of Neostigmine

LA Arrabi, RD Collins, M Horng
University of Texas MD Anderson Cancer Center, Houston, Texas

Background: Neostigmine is a cholinesterase inhibitor used for the treatment of acute colonic pseudo-obstruction (ACPO). Its adverse effects include bradycardia (6.3-11.1%), which is treated by atropine, an antimuscurinic agent. There is currently no institutional policy mandating the need for cardiac telemetry monitoring nor is there an associated as needed (PRN) atropine order linked with neostigmine to facilitate rapid administration in the incidence of symptomatic bradycardia.

Objective(s): To increase PRN atropine orders at bedside and increase appropriate telemetry monitoring for all patients receiving neostigmine.

Method(s): This quasi-experimental study was conducted at MD Anderson Cancer Center. Pre-interventional data was collected on all adult inpatient neostigmine administrations from 4/1/2016 through 8/22/18. We created an order panel linking neostigmine with PRN atropine and mandated prolonged cardiac monitoring for all patients receiving neostigmine. Written and verbal education was provided to nursing, prescribers, and pharmacists. Post-interventional data was collected.

Result(s): 76 patients received neostigmine during the pre-interventional phase. The incidence of bradycardia was 14.47% and symptomatic bradycardia was 1.3%. Only 28% of patients receiving neostigmine had a PRN atropine order for symptomatic bradycardia. Post-interventional data revealed 1 patient received 3 unique neostigmine doses for ACPO on a non-telemetry unit. PRN atropine and prolonged telemetry was ordered. The patient did not develop bradycardia and did not receive atropine.

Conclusion(s): Prescribers have been adherent to the new neostigmine-PRN atropine order panel. However, further post-interventional data is warranted to assess the reduction of treatment delays in the incidence of bradycardia with the new neostigmine-PRN atropine order panel.

Disclosure(s): The authors have nothing to disclose

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