Official Newsjournal of the Illinois Council of Health-System Pharmacists

Educational Affairs Poster Abstracts
2017 ICHP-MSHP Spring Meeting Poster Abstracts

EDITOR'S NOTE: *For a detailed list of all posters as presented at the 2017 ICHP-MSHP Spring Meeting, please refer to the Spring Meeting Handouts Page, http://www.ichpnet.org/events/spring_meeting/2017/program_handouts.php.*
All research was to have results and conclusions by the time of presentation. This may not be reflected in the posted abstracts below.

PLATFORM PRESENTATIONS
1. Breaking Real and Perceived Barriers to Voluntary Reporting of Safety Events by Pharmacy Personnel in an Acute Care Institution
2. Student Attitudes and Behaviors on Utilization of a Virtual Dispensing Software in a Healthcare Communications Course

ORIGINAL
1. Utilizing Existing Staff to Address Antimicrobial Stewardship Needs in a Small Urban Community Hospital (Poster #9)
2. The Optimization of Automated Dispensing Cabinets in an Academic Medical Center (Poster #10)
3. Medication Utilization and Patient Falls Correlated with the Use of Melatonin and Zolpidem in the Hospital (Poster #11)
4. Most Valuable Components of Residency Training at the University of Chicago Medicine (Poster #28 – not presented)
5. Management of Heparin Infusions in the Obese Population (Poster #30)

ENCORE
1. Evaluation of Sustained Virologic Response Rates after Hepatitis C Virus Treatment among a Diverse Patient Population at an Urban Academic Medical Center (Poster #13 – not presented)
2. Pharmacy Desensitization in a Collaborative Practice with Allergy Clinic (Poster #34)

STUDENT
1. The Deprescribing Conversation Project: Giving Nurses the "Words" (Poster #18)
2. Reducing Polypharmacy: Deprescribing at an Academic Medical Center (Poster #36)
3. Fall Risk Assessments in a Community-based Senior Outreach Program (Poster #39)
4. Dose Adjustments of Thiopurines in Patients Based on Thiopurine Methyltransferase Activity (Poster #41)
5. The Impact of Pharmacist-Driven Pantoprazole to Famotidine Substitution Protocol on Rates of Hospital-Acquired Clostridium difficile (Poster #42 – not presented)
6. Evaluation of Pain Medication Management in Patients Admitted to a Large Academic Hospital (Poster #43 – not presented)

****

ICHP Poster Presentations - Platform Presentation 1

Category: Encore

Title: Breaking Real and Perceived Barriers to Voluntary Reporting of Safety Events by Pharmacy Personnel in an Acute Care Institution

Purpose: Purpose Voluntary incident reporting by healthcare personnel discloses adverse events and errors so patient safety and quality of care can be tracked and improved. However, it is estimated that adverse events in healthcare systems are underreported at an annual rate of 50 to 96%. Barriers to reporting include fear of individual or organizational repercussion; a belief that reporting errors can measure practitioner competence; and potential legal concerns associated with error reporting. The purpose of this study is to assess perceived and real barriers to voluntary reporting of safety events by pharmacy personnel at Northwestern Memorial Hospital (NMH) in Chicago, IL.

Methods: An anonymous survey on attitudes and barriers to reporting in the Northwestern Events Tracking System (NETS) was created in SurveyMonkey and emailed in September 2016 to 171 pharmacists and 112 technicians at NMH via email listservs. The survey consisted of 17 questions on demographics, awareness of event reporting, and concerns with event reporting using a Likert scale. The same survey will be emailed out to the same group after education and process improvement(s) have been implemented, in order to measure changes in awareness of the NETS process and any changes in barriers to use. Prior to administration of the survey, the number of medication safety events (those that are categorized as "Adverse Drug Reactions" and "Medication/Fluid") reported in NETS by pharmacists and pharmacy technicians were

measured from all reports submitted under these categories from December 2015 through February 2016. These data will be collected again after education and process improvement(s) are implemented, in order to assess any changes in reporting by pharmacy personnel.

Results: Prior to this survey, 34 medication safety event reports were made by pharmacists and 3 were made by pharmacy technicians in the measured 3 month period. Of the 283 pharmacy personnel who received the survey, 114 completed it (40% response rate). A majority of respondents are pharmacists (72%), and a majority work in an inpatient setting (83%). Nearly all respondents are aware of the NETS (98%) and of how to access and submit reports (96%), but many claim they rarely (34%) or never (18%) report an event through the NETS. The top 4 identified barriers to reporting based on those who responded “Strongly Agree” or “Agree” to statements about perceived barriers are as follows: fear of distrust among colleagues for submitting a report involving them (36%); a lack of follow-up after an incident report is submitted (34%); concern that information can be traced back to the person who submitted the report (32%); and a concern that disciplinary action will be taken upon the person involved in the event based on the report (28%).

Conclusions: Survey results demonstrate that fear of repercussion, lack of anonymity, and distrust among colleagues are major barriers to event reporting. Fostering a just culture through emphasis on patient safety both at the level of pharmacy leadership and throughout the department, along with streamlining management of events and providing follow-up on improvements made should help to break these barriers.

Submitting Author: Lara Ellinger, PharmD, BCPS

Organization: Northwestern Memorial Hospital

Authors: Lara Ellinger, PharmD, BCPS, Drug Information and Medication Safety Pharmacist; Tina Lertharakul, PharmD Candidate, Midwestern University; Katherine Gauen, PharmD, Pharmacy Administration PGY2 Resident, Northwestern Memorial Hospital.

****

ICHP Poster Presentations - Platform Presentation 2
Winner: Best Platform Presentation 2017

Category: Student Research Complete

Title: Student Attitudes and Behaviors on Utilization of a Virtual Dispensing Software in a Healthcare Communications Course

Purpose: Student Attitudes and Behaviors on Utilization of a Virtual Dispensing Software in a Healthcare Communications Course Purpose: The Accreditation Council for Pharmacy Education (ACPE) requires that medication preparation and dispensing be incorporated into didactic coursework. While it is taught and practiced in the earlier years of pharmacy education, it is not until students are on Advanced Pharmacy Practice Experiences (APPEs) that the skills and knowledge are tested in a real world environment. The actions of verifying and dispensing medications only comprise a small portion of the activities required during the APPE community rotation. To better prepare students for the potential role of dispensing in their future practice, aspects of dispensing should be incorporated early on in the curriculum. Previous studies using a limited population of pharmacy students have shown students are willing to use a virtual dispensing software and perceive it to be helpful. The objective of our study is to explore student perceptions and use of virtual dispensing software in a broader, larger student population.

Methods: A virtual dispensing software (MyDispense) was incorporated into a required communications course. MyDispense was developed by Monash University in Australia for use in their pharmacy curriculum and has been modified for use in other countries, including the US. The exercises used in this course focused on common problems seen in community practice, including contacting the prescriber for clarification, drug interactions between different prescription medications, and drug interactions between prescription and over the counter medications. This questionnaire-based study was conducted at Midwestern University Chicago College of Pharmacy in Downers Grove, Illinois. All third year pharmacy students who had used MyDispense as part of the communications course were eligible to participate. The questionnaire collected information regarding student usage of MyDispense, perceptions of the software, and demographics. The questionnaire was administered via SurveyMonkey at the beginning of a required course session once all MyDispense assignments and quizzes were completed for the course. Descriptive statistics were utilized for results of this study. This project was approved by the Midwestern University IRB.

Results: One hundred sixty-two students participated in the study, resulting in a 91.5% response rate. The majority was female (75%) and had a bachelor’s degree (66%). The median age was twenty-five years old. Most students had pharmacy work experience (85%), with a majority of that experience being in community pharmacy (83%). One hundred and four students (64%) completed at least 80% of the practice exercises. One hundred and thirty-six students (85%) felt that using MyDispense was a positive learning experience and one hundred and thirty-nine students (87%) stated that MyDispense made them more aware of the dispensing process, including performing tasks such as checking for drug interactions, contacting the prescriber as necessary, and asking the patient relevant questions. Additionally, one hundred and forty-eight students (92.5%) felt that there would be a benefit from using MyDispense earlier on in the curriculum.

Conclusions: The implementation of a virtual dispensing program in a required course was received positively, as shown by the usage of the students. A majority of students found a significant benefit from using MyDispense. Despite that most of these students had previous and current community pharmacy work experience, most students achieved a better insight into the dispensing process and into the role of the pharmacist in the community setting.

Submitting Author: Michael Serlin, PharmD Candidate

Organization: Midwestern University Chicago College of Pharmacy

Authors: Michael William Serlin- PharmD Candidate, Midwestern University Chicago College of Pharmacy; Jennifer Mazan, PharmD, Professor, Midwestern University Chicago College of Pharmacy; Kathy E. Komperda, PharmD, BCPS, Professor, Midwestern University Chicago College of Pharmacy.

****

ICHP Poster Presentations – Original 1

(presented as Poster #9)

Category: Original-Research in Progress

Title: Utilizing Existing Staff to Address Antimicrobial Stewardship Needs in a Small Urban Community Hospital

Purpose: Antimicrobial stewardship is a necessary responsibility in healthcare facilities to control the emergence of bacterial resistance, health care costs, and healthcare-acquired infection rates. The Joint Commission adopted a new Medication Management standard (MM.09.01.01) to define required elements of Antimicrobial Stewardship Programs (ASPs), effective 1/1/17. In preparation, the study site's Pharmacy Department sought to develop an ASP pilot with existing pharmacy staff. The purpose was to determine if an internal change made to the staffing model, allowing a lead pharmacist dedicated time to perform ASP activities, was effective in reducing the duration of broad-spectrum antibiotics and overall anti-infective use.

Methods: The pilot was conducted at a small community hospital with an average daily census of 69 patients comprised of 40% behavioral health patients from 6/13/16 to 12/13/16 compared to a pre-intervention period of 1/1/15 to 12/31/15. Before pilot initiation, the feasibility of dedicating an entire shift to ASP efforts was determined by evaluating the average number of orders processed on weekdays versus weekends. A weekend shift was moved to Monday to assign an existing staff member as the designated lead ASP pharmacist for the department. ASP presentations, readings, and competency questions provided further training for pharmacy staff. The lead ASP pharmacist reviewed antimicrobial drug therapy based on daily trigger reports and monitored for clinical response. Interventions focused on drug-bug mismatch, de-escalation, discontinuation, and duration of therapy opportunities. The pharmacy staff was encouraged to make antimicrobial stewardship interventions throughout the week. The number of pharmacist-driven ASP interventions and duration of therapy for the most impacted broad-spectrum antibiotics were the primary outcomes. Cost per adjusted patient days for anti-infectives was the secondary outcome.

Results: Research in Progress. There was a 6-fold increase in the number of antimicrobial stewardship interventions with 310 interventions in the 6-month post-intervention period as compared to 51 interventions in the 12-month pre-intervention period. The two most impacted antibiotics by this pilot were levofloxacin (90 interventions) and piperacillin-tazobactam (38 interventions). The average durations of therapy decreased by 4% and 1% for levofloxacin and piperacillin-tazobactam respectively in the post-intervention versus the pre-intervention periods. Average anti-infective cost per adjusted patient day decreased from $4.94 to $3.10 in the pre-intervention versus the post-intervention period. (Additional data to be presented at the meeting.)

Conclusions: Research in Progress. In hospital settings across the United States, ASPs are being created to optimize the use of antibiotics, prevent resistance and minimize adverse events. As shown in the pilot, for smaller community hospitals, creating internal infrastructure to support ASP efforts can still make an impact. (Additional data to be presented at the meeting.)

Submitting Author: Zeina Samara, PharmD

Organization: Westlake Hospital

Authors: Zeina E. Samara, PharmD, Clinical Pharmacist Tenet Healthcare - Westlake Hospital; Dan V. Ciarrachi, RPh, Clinical Pharmacist Tenet Healthcare - Westlake Hospital; Charlene Hope Henry, PharmD, MS, BCPS, Quality and Safety Pharmacy Manager, Chicago Market, Tenet Healthcare - MacNeal, Weiss, West Suburban, Westlake; Stacy Thomas Scaria, PharmD, Clinical Pharmacist Tenet Healthcare – West Lake Hospital; Deanna McMahon Horner, PharmD, BCPS, Clinical Pharmacy Manager, UnitedHealthcare Medicare & Retirement, Part D STARs.

****

ICHP Poster Presentations – Original 2

(presented as Poster #10)

Category: Original-Research in Progress

Title: The Optimization of Automated Dispensing Cabinets in an Academic Medical Center

Purpose: The University of Chicago's pharmacy department strives to direct operations around the effective use of automation and technology. This project was primarily conducted to ensure the proper utilization of current automation and technology, specifically automated dispensing cabinets (ADCs), in the most efficient manner to meet the patient care needs of the medical center. The University of Chicago Medical Center has contemporary pharmacy automation solutions in place, some of which include ADCs. An attempt to maximize the efficiency of the drug distribution technology was made, focusing in on the medication dispensing carousels located within the pharmacy and the automated dispensing cabinets located in the adult patient care areas throughout the medical center (The Center for Care and Discovery and the Mitchell Hospital). The primary objective of the optimization efforts were to maximize the amount of medications dispensed as common stock instead of patient specific doses from the ADCs, which ultimately reduces the time and effort needed to complete the daily cartfill process, which are all patient specific doses that are not loaded as common stock medications in the ADCs. A secondary objective was to reduce the amount of time involved in restocking of common stock medications in the ADCs on a daily basis by the pharmacy technicians.

Methods: Pharmacy automation analysts are members of the pharmacy informatics team, primarily responsible for maintenance of the cabinets, par and stock adjustments, and report writing. The analysts were able to evaluate specific canned reports to draft velocity reports, showing which ADCs possessed medications not being utilized effectively and which ADCs were missing medications as common stock items that were being routinely added and dispensed as a patient specific dose medication. Par levels for each drug added to the ADCs were adjusted as space allowed to account for package sizes stored centrally in pharmacy and to require an ADC restock no more than twice weekly. Velocity reports were run

for the adult inpatient locations in the medical center, not including the emergency room or procedural area ADCs. This included a total of 104 ADCs reviewed. Common stock medications and associated par levels were added or adjusted in the ADC database starting in November 2016 and completed in March 2017.

Results: Of the 104 ADCs analyzed, the common stack rate of medications pulled increased from 85.4% in November to 86% in March, resulting in about a 0.5% increase in the rate of dispenses classified as common stock. The number of patient specific dispenses in every month went from 1,828 in November 2016, up to 1,936 in January 2017, and back down to 1,866 in March. Additionally, the number of restock transactions generated monthly for the ADCs went from 11,903 in November 2016, to 12,362 in January 2017, and then down to 11,602 transactions in February.

Conclusions: The results of the optimization efforts during the project did not show significant changes overall in the metrics identified. This 5 month longitudinal process was not robust enough to improve the percentage of common stock dispensing, reduce the number of patient specific dispenses from the ADCs, or reduce the number of medication restock transactions generated from the storage carousels. Efforts to optimize the ADCs through other means (par vs. utilization reports, ordered medications without removals, etc.) will be reviewed by the pharmacy automation team to ensure an ongoing, proactive approach to improving the use of the ADCs.

Submitting Author: Anthony Scott, PharmD

Organization: The University of Chicago Medicine

Authors: Kevin Colgan, MA, FASHP, Vice President, Chief Pharmacy Officer, The University of Chicago Medicine; Anthony C. Scott, PharmD, Assistant Director of Pharmacy Operations, The University of Chicago Medicine; Monika K. Lach, PharmD, PGY-1/PGY-2 Health-System Pharmacy Administration Resident, The University of Chicago Medicine; Bernice Y. Man, PharmD, PGY-2 Health-System Pharmacy Administration Resident, The University of Chicago Medicine.

****

ICHP Poster Presentations – Original 3

(presented as Poster #11)

Category: Original-Research in Progress

Title: Medication Utilization and Patient Falls Correlated with the Use of Melatonin and Zolpidem in the Hospital

Purpose: Patient falls is one of the most common adverse events reported in the inpatient care settings. Among hospitalized patients, rates of falls range from 1.97 to 8.40 falls per 1000 patient-days. Patient falls prolong hospitalization, increase cost of care, and have the potential to cause serious injury. There are multiple risk factors reported in literature that are associated with falls, including: advanced age, muscle weakness, gait or balance problems, visual impairment, dizziness or vertigo, cognitive deficits, and use of psychotropic medications. Zolpidem is among one of the psychotropic medications commonly used in the inpatient setting that has been reported to decrease balance and has been independently associated with falls. Zolpidem use in hospitalized patients may be a potentially modifiable risk factor for falling. At University of Chicago Medicine (UCM), melatonin, an alternative sleep aide was added to the formulary in 2014. This project aims to compare falls that correlated with the use of zolpidem and melatonin as well as to analyze the prescribing pattern of zolpidem and melatonin at UCM since the addition of melatonin to formulary.

Methods: A retrospective analysis was conducted using data collected from patients between July and December of 2014 and July and December of 2015, which were defined as periods pre and post addition of melatonin to formulary respectively. Patients included in the study were greater than 18 years of age who received either zolpidem or melatonin or fell during the study time periods. Patients were identified by either having an adverse event report submitted for a fall and/or if they had an active medication order for either melatonin or zolpidem on pharmacy utilization reports.. Patients were excluded if they fell during an outpatient visit or if the location of the fall could not be determined due to incomplete reporting. The primary objective was to compare the incidence of falls in patients receiving melatonin or zolpidem, or both agents, or neither agent. The secondary objective was to analyze the utilization trends of zolpidem and melatonin at UCM during the study period. The following data will be collected: age, gender, date of patient fall, admitting service, hospital unit, days of sleep aide therapy, dosage and proximity of the last dose to the fall.

Results: Research in Progress. To be presented at meeting.

Conclusions: Research in Progress. To be presented at meeting.

Submitting Author: Lida Thimothy, PharmD, BCPS

Organization: University of Chicago Medical Center

Authors: Lida Thimothy, PhamD, BCPS, Clinical Pharmacist, University of Chicago Medical Center; Hailey Soni, PharmD, BCPS, Clinical Pharmacy Specialist - Internal Medicine, University of Chicago Medical Center; Judy Doty, MSN, RN, Nursing Quality Manager, University of Chicago Medical Center; Meghan Conroy Sweis, MSN, RN, Nursing Quality Specialist, University of Chicago Medical Center; Randall Knoebel, PharmD, BCOP, Clinical Manager, University of Chicago Medical Center.

****

ICHP Poster Presentations – Original 4

(presented as Poster #28)

Category: Original-Research in Progress

Title: Most Valuable Components of Residency Training at the University of Chicago Medicine

Poster not presented.

****

ICHP Poster Presentations – Original 5

Winner: Best Original Poster Presentation 2017

(presented as Poster #30)

Category: Original-Research in Progress

Title: Management of Heparin Infusions in the Obese Population

Purpose: An update to the heparin infusion protocol for the treatment of venous thromboembolism was implemented in a community hospital. The objective was to review the effects of using adjusted body weight (AdjBW) for patients weighing >150 kg.

Methods: This was a retrospective quality improvement project. Obese patients who were prescribed heparin were divided into three groups: 100-119 kg, 120-149 kg, and ≥150 kg. Inclusion criteria included documentation of a bolus and initial infusion and ≥2 PTT results. The primary outcome was time to first therapeutic PTT. Secondary outcomes included median initial PTT, median PTT at 24 hours, and bleeding episodes.

Results: The median times to therapeutic range for the 100-119 kg, 120-149 kg, and > 150 kg groups were 21 hours (IQR 13-25 h), 22 h (IQR 18-24 h), and 6 h (IQR 6-16 h) respectively. Therapeutic range was 65-104 seconds. At first PTT draw, the median PTT was 171 seconds (IQR 116-215 s), 186 s (IQR 117-260 s), and 77 s (IQR 65-92 s) and at 24 hours after the start of the infusion the median PTT was 83 s (IQR 70-112), 95 s (IQR 82-108), and 60 s (IQR 51-76 s) respectively.

Conclusions: The use of AdjBW for heparin boluses and initial infusion rates in patients weighing > 150 kg shortened time to therapeutic range compared to patients weighing 100-150 kg. However, these patients required several upward titrations to maintain therapeutic PTTs at 24 hours. Patients weighing 100-150 kg achieved highly supratherapeutic anticoagulation and required several downward titrations to achieve therapeutic range at 24 hours. Use of BMI in place of an actual body weigh cut-off for identifying patients at risk of over anticoagulation with standard heparin doses should be investigated.

Submitting Author: Kathryn Wdowiarz, PharmD, BCPS

Organization: Midwestern University and Edward Elmhurst Healthcare

Authors: Kathryn Wdowiarz, PharmD, BCPS, Assistant Professor, Midwestern University Chicago College of Pharmacy, Downers Grove, IL, and Internal Medicine Clinical Pharmacist, Edward Elmhurst Healthcare, Naperville, I; Danielle Petric, PharmD Candidate, Midwestern University Chicago College of Pharmacy, Downers Grove, IL.

****

ICHP Poster Presentations – Encore 1

(presented as Poster #13)

Category: Encore

Title: Evaluation of Sustained Virologic Response Rates after Hepatitis C Virus Treatment among a Diverse Patient Population at an Urban Academic Medical Center

Poster not presented.

****

ICHP Poster Presentation – Encore 2

Winner: Best Encore Poster Presentation 2017

(presented as Poster #34)

Category: Encore

Title: Pharmacy Desensitization in a Collaborative Practice with Allergy Clinic

Purpose: Purpose: Desensitization is a medical treatment for some types of allergies with the aim to induce or restore tolerance to the allergen by reducing its tendency to induce IgE antibody production. Patients are desensitized through the administration of escalating doses of allergen that gradually decreases the IgE-dominated response. The purpose of this poster is to summarize and describe a model for an ambulatory care pharmacy to prepare, label and provide all desensitization medication needs to the Allergy clinic for patient specific administration.

Methods: Patient is seen at the Medical Center and is diagnosed with a disease state that requires the patient to use a drug they may be allergic to. For example, a patient may have a documented metronidazole allergy, but needs the drug for treatment of their diagnosed condition. The Allergy Clinic doctors become involved in the case and will enter a desensitization prescription for the patient. This prescription is sent to the outpatient pharmacy with a time and date that the order is needed by. The outpatient pharmacy assesses the appropriateness of the order by conducting a detailed clinical review, checking the compatibility and stability of products, as well as dosing calculations. Once all clinical requirements are

met, the outpatient pharmacy also ensures the products are available and can be ordered through the pharmacy ordering system. With everything in place, the order is prepared and the Allergy Clinic staff picks up the order to administer to the patient in the clinic.

Results: This full-circle collaboration between an outpatient pharmacy and clinic staff allows for a mechanism of completing desensitization orders and ensuring delivery to the Allergy Clinic for the most effective patient care. It was determined that the outpatient pharmacy was best equipped to provide the desensitization orders to the Allergy Clinic because of the detailed clinical review provided, ability to order required products directly, as well as use of an on-site clean room. The outpatient pharmacy has an agreement with the Allergy clinic to have all orders prepared in time for the clinic staff to pick up and take back to clinic. Overall, a model of an outpatient pharmacy-prepared desensitization order was designed and implemented successfully for an affiliated Allergy Clinic. Specifically, patients that were noted to have a documented allergy were able to successfully undergo treatment for their medical condition without increased risk to their health.

Conclusions: An outpatient pharmacy staffed with pharmacists providing thorough clinical review of all desensitization orders and equipped with a sterile compounding facility is best suited to meet the needs for preparation of desensitization orders. All desensitization orders were prepared in a timely and efficient manner, allowing for patient access to quality care and further contributing to positive outcomes such as decreasing risk of allergic reaction during treatment, avoiding major side effects to medications, and decreasing cost for this sensitive patient population.

Submitting Author: Daniel Haywood, PharmD Candidate

Organization: University of Illinois Hospital & Health Sciences System, EEI Ambulatory Care Pharmacy

Authors: Sami Labib, RPh, Clinical Assistant Professor, Pharmacy Practice Assistant Director, Clinical Instructor. Monazzah Sarwar, PharmD, Clinical Instructor, Clinical Pharmacist; Steven Menachof, PharmD Candidate, EEI Extern; Daniel Haywood, PharmD Candidate, EEI Extern.

****

ICHP Poster Presentation – Student 1

(presented as Poster #18)

Category: Student-Research in Progress

Title: The Deprescribing Conversation Project: Giving Nurses the "Words"

Purpose: With the growth of the older adult population in the United States, healthcare professionals are increasingly involved in end-of-life care across a multitude of practice settings including hospitals, skilled nursing facilities, home care, and hospices. Nurses typically are front line providers for patients nearing the end of life and are often expected to deliver precise communication regarding futile treatments and unnecessary medications to patients and families. These conversations can be challenging for nurses as well as emotional for patients and families, who find it difficult to understand why a medication once perceived as beneficial is now being discontinued. Pharmacists with their unique knowledge of pharmacotherapy including medication time-to-benefit (i.e. for statins and other preventive agents) and medication risk-to-benefit profiles may be able to provide nurses with the "words" for difficult deprescribing conversations. The purpose of this "Deprescribing Conversation Project" is to enhance hospice nurses' knowledge and comfort with deprescribing conversations by providing a structured dialogue for discussing the benefits and burdens of drug therapy in patients with limited life expectancies.

Methods: Two patient-nurse vignettes were scripted and filmed using student pharmacist actors. Each scenario represents a common deprescribing situation; the first video depicts a conversation about discontinuing cholinesterase inhibitor therapy in a patient with late stage dementia. The second video depicts a conversation regarding inhaler polypharmacy in a patient with advanced pulmonary disease and diminished inspiratory capability. Each video illustrates a rational, patient-centered conversation about medication risk and benefit in the context of the patient's goals and life expectancy. With tactful and empathetic communication, the student pharmacist actor also addresses patient and family concerns as well as misconceptions. Registered hospice nurses in northern Illinois will be recruited to participate in viewing these two videos via email correspondence. Before and after viewing the videos, the study participants will be asked to complete a pre and post-survey to assess their perspective and knowledge of deprescribing and their comfort level with conducting these conversations. Pre-survey results will be compared to post-survey results to assess whether the filmed vignettes improved nurses' knowledge and comfort with deprescribing conversations.

Results: Research in Progress. To be presented at meeting.

Conclusions: Research in Progress. To be presented at meeting.

Submitting Author: Patrice Davis, PharmD Candidate

Organization: University of Illinois at Chicago (UIC) College of Pharmacy at Rockford

Authors: Patrice Davis, PharmD Candidate, UIC College of Pharmacy at Rockford; Hans Scheerenberger, PharmD Candidate, UIC College of Pharmacy at Rockford; Laura Meyer-Junco, PharmD, BCPS, CPE, UIC College of Pharmacy at Rockford.

****

ICHP Poster Presentation – Student 2

Winner: Best Student Poster Presentation 2017

(presented as Poster #36)

Category: Student-Research in Progress

Title: Reducing Polypharmacy: Deprescribing at an Academic Medical Center

Purpose: Polypharmacy is a growing problem within the healthcare system contributing to an increased risk of adverse drug reactions, potential drug-drug interactions, non-adherence to medications, and associated health care costs. The objective of this study is to reduce polypharmacy through the process of deprescribing. Deprescribing is defined as the process of tapering, stopping, discontinuing, or withdrawing drugs that are deemed inappropriate or no longer necessary. Deprescribing aims to manage polypharmacy and improve patient outcomes; therefore, reducing the risks associated with using multiple medications. Additionally, this study aims to enhance the standard of care by evaluating a patient's home medication list during an inpatient hospitalization with the overall goal of simplifying the patient's drug regimen.

Methods: This project was conducted in conjunction with a deprescribing quality improvement initiative at an academic medical center in Springfield, IL. The quality improvement team identified patients aged 65 years or older, taking at least 8 medications at home who were admitted to the Southern Illinois University (SIU) Internal Medicine Team and were patients at the SIU Internal Medicine Team Clinic. The patient's home medication list was reviewed upon admission to the hospital by a pharmacist or a physician on the quality improvement team and potential unnecessary or inappropriate medications were identified with the intent of deprescribing. Stopping these medications was discussed with the patient and documented within their electronic health record. This study used a retrospective chart review to determine which home medications upon admission were considered inappropriate and eligible to be stopped and which medications were actually stopped. The study also recorded the physician rationale for why a particular medication was deprescribed.

Results: Of the numerous patients screened, 31 were eligible for this study. Of these eligible patients, the average number of medications upon admission and discharge was 16 and 15, respectively. On average, 3 medications were deprescribed per patient, yet 5 or more medications were discontinued in 26% of patients. The medications discontinued varied widely from antihypertensive agents, antiplatelet medications, antibiotics, and proton pump inhibitors amongst several other pharmacologic classes. In 45% of patients, the rationale for discontinuation of at least one medication was noted as unnecessary medication therapy and occasionally, the medication was responsible for the patient's hospitalization.

Conclusions: Polypharmacy is a prominent issue in patients 65 years and older. These patients are on several medications, often unnecessarily. The process of deprescribing has several different challenges, but this initiative demonstrated the positive impact of simplifying a patient's drug profile and it would be beneficial if such research was conducted on a larger scale.

Submitting Author: Morgan Atwood, PharmD Candidate

Organization: Southern Illinois University Edwardsville School of Pharmacy

Authors: N/A

****

ICHP Poster Presentation – Student 3

(presented as Poster #39)

Category: Student-Research in Progress

Title: Fall Risk Assessments in a Community-based Senior Outreach Program

Purpose: Falls among older adults are a serious public health concern. Each year, one in three Americans 65 years and older falls. Of those falls, 55 percent lead to an unintentional injury or death. Medications are a modifiable risk factor for falls; therefore, screening for high-risk drug therapies plays a key role in mitigating medications' impact on falls risk. Furthermore, nationally recognized resources, tools and evidence-based falls prevention programs, exist to empower older adults to decrease their risk of falls. The aim of this study was to screen community based older adults for fall risk, promote community based Matter of Balance program (MOB), and refer those taking high-risk medications to comprehensive medication review (CMR).

Methods: Older adults were screened for fall risk in September 2016, predominantly, at local senior centers (n=15) and one Senior Fest. Assessments included: CDC STEADI Fall Risk Checklist (high risk: if answered Yes to 4 or more questions, if fallen in the past year, if taking medications for sleep or mood disorders, and/or if experiencing dizziness or fatigue due to medications), Timed Up and Go (TUG) test (high risk: >12 seconds), orthostatic blood pressure, and high risk medication class review. All older adults were encouraged to participate in MOB, and those taking high-risk medications were encouraged to have health care provided CMR. Program evaluation was assessed.

Results: Four hundred thirty nine participants (mean age 72.9, range 47-95) were assessed for fall risk. When permitted, those identified at higher risk of falls via the CDC STEADI tool (244/439, 55.58%) were further assessed. Reasons identified for fall risk included: TUG test (69/244, 28.28%), orthostatic blood pressure (11/244, 4.51%), and high-risk medications (150/244, 61.48%). High-risk medication classes included: CNS active medications- benzodiazepines, antipsychotics, anti-epileptics, antidepressants, sedatives, anti-parkinsons', opioids, muscle relaxants and/or antihistamines (52/244, 21.31%), antihypertensives (126/244, 51.64%), and sulfonylureas (17/244, 6.97%). Older adults with two or more CNS active medications (20/244, 8.2%). Older adults likely to participate in CMR (163/439, 37.13%), MOB (169/439, 38.5%) and/or make changes to their home environment (153/439, 34.85%) as a result of the program were referred.

Conclusions: Fall risk assessments by health care providers in community based older adults accompanied with referral to structured evidence based medication reviews and self-care training programs contributes to overall public health, safety promotion and national fall prevention efforts.

Submitting Author: Yesha Patel, PharmD Candidate

Organization: University of Illinois at Chicago College of Pharmacy

Authors: Yesha Y. Patel, PharmD Candidate 2017, University of Illinois at Chicago College of Pharmacy, Hospital Pharmacy Extern, University of Illinois Hospital and Health Sciences System; Michael J. Koronkowski, PharmD, Clinical Assistant Professor, Department of Pharmacy Practice, University of Illinois at Chicago College of Pharmacy; Adam Bursua, PharmD, Clinical Assistant Professor, Department of Pharmacy

Practice, University of Illinois at Chicago College of Pharmacy; Kristen L. Goliak, PharmD, Clinical Associate Professor, Department of Pharmacy Practice, University of Illinois at Chicago College of Pharmacy.

****

ICHP Poster Presentation – Student 4

(presented as Poster #41)

Category: Student-Research in Progress

Title: Dose Adjustments of Thiopurines in Patients Based on Thiopurine Methyltransferase Activity

Purpose: Azathioprine is a prodrug whose active metabolite, 6-mercaptopurine (6-MP), is a purine analogue that exerts its immunosuppressive effects by interfering with DNA synthesis and repair. 6-MP is metabolized by the enzyme thiopurine methyltransferase (TPMT) to produce 6-methylmercaptopurine (6-MMP). Deficiency of this enzyme leads to excessive amounts of 6-MP, which then causes the metabolism to occur down an alternate pathway. This can result in life-threatening myelosuppression. TPMT is a cytoplasmic transmethylase that is present in most bodily tissues such as the heart, placenta, pancreas, intestine, and red blood cells. When using standard dosing, low levels of TPMT activity have been associated with an increased risk for thiopurine toxicities such as severe myelosuppression. Conversely, high activity levels have been associated with suboptimal treatment. Several studies have examined whether there is a benefit to testing markers of TPMT activity prior to the administration of thiopurines to guide empiric dosing adjustments. Currently, University of Chicago Medicine does not have a protocol that addresses specific starting doses and subsequent dose adjustments of thiopurines based on TPMT phenotype category. The purpose of this retrospective single center study is to identify optimal dosing for patients based on their TPMT phenotype category.

Methods: A lab report of all TPMT results from 1/1/2015 to 6/30/2016 will be used to identify patients that received phenotype testing. Additional data will be obtained from the electronic medical record, including patient demographics and baseline characteristics [age, sex, race, CrCl, TPMT phenotype category (low, low normal, normal, or high), indication for treatment, specific thiopurine drug utilized, initial thiopurine dose, CBC, AST, ALT, alkaline phosphatase, bilirubin, number of subsequent dose adjustments, and final dose]. The primary endpoint will be the final dose for each TPMT phenotype category. Secondary endpoints are the percentage of patients that received dose adjustments based on TPMT phenotype category, the average number of dose adjustments, and the percentage of patients who experiences toxicities and adverse events. Inclusion Criteria: •All patients at UCM who received TPMT phenotype testing between January 1, 2015 and June 30 2016 Exclusion Criteria: •Patients who received no doses of thiopurine drugs following TPMT testing •Pregnant and lactating women •Patients taking febuxostat, doxorubicin, or allopurinol at the time of thiopurine initiation •Patients with a blood transfusion within 60 days prior to TPMT testing •History of use of alkylating agents: Altretamine, Bendamustine, Busulfan, Carboplatin, Carmustine, Chlorambucil, Cisplatin, Cyclophosphamide, Estramustine, Ifosfamide, Lomustine, Mechlorethamine, Melphalan, Oxaliplatin, Procarbazine, Streptozocin, Thiotepa, Dacarbazine, Temozolomide •Renal transplant rejections •Renal impairment, defined as CrCl <50 ml/min, or patients on Hemodialysis or Continuous Renal Replacement Therapy Statistical Analysis: •Descriptive Statistics •Multi-variant logistic regression

Results: Research in Progress. To be presented at meeting.

Conclusions: Research in Progress. To be presented at meeting.

Submitting Author: Brittany Huff, PharmD Candidate

Organization: University of Chicago Medical Center

Authors: Brittany M Huff, PharmD Candidate, Chicago State University College of Pharmacy, Student Pharmacist; Trevor N. Christ, PharmD, University of Chicago Medical Center, Clinical Pharmacy Specialist-Adult Hematology/Oncology; Shannon M. Rotolo, PharmD, BCPS, University of Chicago Medical Center, Clinical Pharmacy Specialist-General Pediatrics.

****

ICHP Poster Presentation – Student 5

(presented as Poster #42)

Category: Student-Research in Progress

Title: The Impact of Pharmacist-Driven Pantoprazole to Famotidine Substitution Protocol on Rates of Hospital-Acquired Clostridium difficile

Poster not presented.

****

ICHP Poster Presentation – Student 6

(presented as Poster #43)

Category: Student-Research in Progress

Title: Evaluation of Pain Medication Management in Patients Admitted to a Large Academic Hospital

Poster not presented.

****

Save to PDF

© 2017 ICHP. All Rights Reserved.