ONE VOICE.
ONE VISION.
ONE TEAM.

PSW Annual Meeting

September 12-14, 2019

KI Convention Center, Green Bay

Poster Presentation Abstracts

The Evolution of the Pharmacy Society of Wisconsin's State-based Immunization Training Program from 1998-2019

Tyler Albright, 2021 PharmD Candidate, Erica Martin, BS, Chad Nechvatal, BS, Sarah Sorum, PharmD

Background: OIn 1994 the first formal immunization training for pharmacists took place in Seattle, Washington. Today, there are over 300,000 trained pharmacists in the United States able to administer vaccines. Patients said pharmacists are the second most trusted immunizer behind physicians. Nationally, 25% of all flu vaccines are administered at a pharmacy.

To expand patient access to life-saving immunizations, the Pharmacy Society of Wisconsin (PSW) started offering immunization administration trainings to licensed pharmacists in 1998 after statute changes permitted pharmacists to vaccinate patients above the age of 18. Statute changed again in 2011 to permit pharmacist to administer immunize those ages six and above. Per statue, Wisconsin pharmacists are required to meet certain trainings requirements that can be fulfilled by completing an immunization training course.

Objectives: To determine how immunization administration training registrations have changed between 1998-2019.

Methods: PSW immunization training registration and attendance information was stored in three different databases since 1998: iMIS Association Management Software, Affiniscape, and Noah by JL Systems. Data was exported and analyzed to determine if attendance was higher when training was offered in conjunction with the PSW Annual Meeting, pharmacist license renewals, or changes in the Advisory Committee on Immunization Practices (ACIP) recommendations. Registration was also compared to the Dissemination of Innovation theory.

Results: Over 1,100 pharmacists were trained throughout 26 PSW immunization administration trainings, with an average of about 25 attendees per event, between 1998-2019. Attendance was highest in the years just after the statute changes in 1998 and 2011. Attendance in the years one through three following the statute change (1998-2000) was 46% higher in attendance compared to years four through six (2001-2004). The three years after the 2011 change (2011-2014) had 121% higher attendance than years four through six (2015-2018). Attendance was also higher when the training was held in conjunction with the PSW Annual Meetings rather than standalone with an average of about 26 attendees during Annuals Meetings and 24 attendees not at annual meetings. There is no correlation with pharmacist license renewal years or changes in ACIP recommendations and an increase in training attendance.

Conclusions: Attendance was highest in the three years after the statute changes in 1998 and 2011. This suggests pharmacists are interested in receiving trainings upon scope expansion. The attendance curve loosely follows the Diffusion of Innovations theory which describes how a product gathers momentum and spreads throughout a system. There was a higher initial group of innovators the 1998 statute changes likely influenced this, but the rest of the theory remains consistent with early and late majority occurring right around the 2011 changes.

Attendance is highest when offered with the PSW Annual Meeting. State-based training programs may consider hosting trainings in conjunction with a conference to increase the number of pharmacists trained at an individual training program.

The Public Health Service 340B Drug Pricing Program

Stephany J. Ingersoll, 2020 PharmD/MBA Candidate

Background: To provide information regarding the 340B program in regard to how the program is designed to work and the impacts of the program. Additionally, to determine if there are any gaps in care with Walgreens' pharmacists and their impact on the 340B program.

Methods: Researched to determine why the 340B program was created and how it was implemented in practice. A survey was administered to Walgreens' pharmacists to determine if there are any gaps in care regarding the 340B program. An analysis was conducted to determine Walgreens' impact with the 340B program.

Results: The goal of the 340B program was to reduce the cost of outpatient medications for covered entities. This was accomplished by requiring drug manufactures to provide medications to covered entities at a reduced rate. The eligibility of covered entities was expanded by the Affordable Care Act of 2010, which significantly increased the number of covered entities. Current political issues with the 340B program stems from the lack of transparency with the program. There is no requirement for covered entities to show how they are using the profits from the program or that the profits are being used as intended by the program. The results of the survey given to Walgreens' pharmacists indicate that two-thirds of the pharmacists have a general understanding of the 340B program. However, 60% of pharmacists did not know which covered entities were contracted with their pharmacy. This could lead to a possible gap in care, depending on the validation method used by the pharmacy. In the Milwaukee WI area alone, Walgreens Pharmacy has increased access dollars by $1,249,559.

Conclusion: The 340B program requires manufacturers to provide covered entities medications at a reduced cost. The covered entities are then able to use those profits to reach and provide more services to underserved populations. As a result of the increased access dollar, covered entities and their contracted pharmacies are able provide more comprehensive services to underserved patients..

Driving Improvements in Quality and Efficiency through Enhancements of the Medication Refill Process

Kate, Schaafsma, PharmD, MS, MBA, BCPS, Maren VanMieghem, PharmD

Abstract: All patients with chronic medications go through the medication refill process. This process can simple and efficient, or complicated and lengthy, depending on the systems and individuals involved. This study was conducted to evaluate the current medication refill process at Mayo Clinic in Northwest Wisconsin, and to identify opportunities to improve efficiency and simplify the process. The methods included observing and interviewing schedulers, nurses, providers and outpatient pharmacy staff to get insight into the complete process. Staff were observed in five clinic settings and five outpatient pharmacies. The observations resulted in a number of opportunities for improvement. The primary opportunities included: implementing an electronic fax software program in the clinics to enable schedulers and nurses to manage faxes from multiple locations, creating a standard protocol for on-call providers to provide a consistent approach to refills, developing an approved therapeutic interchange list for outpatient pharmacies to use when there is a need to switch products based on product availability and/or PBM coverage , requesting providers to send discontinuation messages to pharmacies about prescriptions that they are stopping, encouraging outpatient pharmacies to link new prescriptions to old prescriptions to minimize unnecessary refill requests, and considering a centralized medication refill model.

Evaluation of a Population Health Management Approach for Optimizing Statin Use for Indicated Patients with Diabetes

Carlie Wilke, 2020 PharmD Candidate, Irene Chung, PharmD

Background: Atherosclerotic cardiovascular disease (ASCVD) remains the leading cause of mortality in the United States. Adults with diabetes are two to four times more likely to die from heart disease than adults without diabetes. Statins are well-studied and proven to reduce ASCVD risk. The American College of Cardiology/ American Heart Association (ACC/AHA) cholesterol guidelines recommend statin therapy for all persons aged 40 – 75 years of age with diabetes and LDL-C level ≥ 70 mg/dL. However, a large gap remains between patients indicated for statin therapy and those receiving one. Multiple factors contribute to statin underutilization, but a recent study found that the most commonly reported reason that indicated patients were not on a statin was because they had never been offered one. Therefore, this project aimed to study the impact of utilizing a population health management approach to identify and initiate statins for eligible patients.

Objectives: To assess patient acceptance of initiating guideline recommended statin therapy for adults with diabetes utilizing a pharmacy intern and a population health management approach.

Methods: A pharmacy intern utilized a population health management report to identify patients at the Baraboo VA Community Based Outpatient Clinic (CBOC) between the ages of 40-75 years old with a diagnosis of diabetes and no active statin prescription in the last year. The pharmacy intern screened patients identified by the report to confirm eligibility in accordance with guideline recommendations. Each patient was discussed with a clinical pharmacist resident to finalize a plan for statin initiation. The pharmacy intern contacted the patient via telephone to discuss statin initiation and ordered the medication and appropriate labs for follow-up if the patient was agreeable. The primary outcome was the percent of patients amenable to initiating statin therapy. Secondary outcome measures included number of patients amenable to initiating statin therapy after education by a primary care provider and reasons patients declined statin initiation

Results: Of the 109 patients identified and screened by the pharmacy intern, 32 patients (29.4%) were indicated for moderate-to-high intensity statin therapy according to ACC/AHA guidelines. Patients were excluded if they did not meet the age recommendations or had LDL-C < 70. An additional four patients were omitted based on clinical judgment. Of the indicated patients, eight patients (25%) were amenable to initiation of statin therapy, six patients declined treatment, and seven patients were unable to be reached by phone. Additionally, seven patients (22%) were agreeable to starting a statin after education by their primary care provider.

Conclusions: Given the impact of statin therapy on reduction of ASCVD risk, improved adherence to guideline recommendations would have positive implications on the health of adults with diabetes. Using a population health management approach to identify statin eligible patients provides an opportunity for pharmacist intervention to improve adherence to cholesterol treatment recommendations. Utilizing pharmacy interns to implement this intervention can expand pharmacist providers' clinical impact and services.

Impact of a Pharmacist-led Diabetes Support Group in an Urban, Underserved Population

Jordan Bell, PharmD, Sara O'Dowd, PharmD, Sarah Ray, PharmD, BCPS

Background: Diabetes is a complex disease that requires multiple approaches to help patients achieve optimal outcomes. A support group that focuses on diabetes-related topics may help patients manage their disease and be actively involved in their healthcare which may result in better outcomes. The purpose of this project was to measure the outcomes of a pharmacist led diabetes support group that utilized both an established curriculum and guest speakers for patients from an urban, underserved population with type 2 diabetes. The institutional review board approved this study and this study received Concordia Intramural Research Grant funding.

Objectives: The primary objective was to assess if patients' A1C values would decrease after attending a pharmacist led diabetes support group for twelve months. Secondary objectives included assessing if patients' knowledge of diabetes, health literacy, and quality of life changed after attending a pharmacist led diabetes support group.

Methods: The curriculum and meeting logistics were finalized. The pharmacist leading the support group completed Healthy Interactions US Diabetes Conversation Map® Tools training. Guest speakers were contacted and confirmed. Patients were recruited from the clinic population. Patients received incentives for attending each monthly meeting. Patients' A1c values were gathered and the Newest Vital Sign Health Literacy Assessment Tool and Diabetes Quality of Life Brief Clinical Inventory were completed at baseline and 12 months. Patients' knowledge was assessed before and after each of the four Conversation Map sessions. Patients completed an end of year survey and were queried about what they enjoyed most and what they wanted to do more/less of during the meetings.

Results: Of five patients enrolled, two completed the 12-month support group. The diabetes support group was composed of a 58-year-old African American male and a 69-year-old African American female. At 12 months, one patient's A1c remained unchanged at 7.1% and the other patient's A1c increased from 6.6% to 6.8%. Participant scores improved by an average of 18% from the pre to post assessments of diabetes knowledge. Scores on the health literacy assessment deteriorated from baseline to 12 months. Participants expressed improved quality of life in terms of time management, self-discipline, diabetes knowledge and level of burden placed on their family members due to diabetes. After the completion of the diabetes support group, patients felt confident performing self-management strategies and were motivated to manage their diabetes.

Conclusions: A pharmacist led diabetes support group may improve participants' understanding of diabetes and quality of life; however, health literacy declined which is likely not a true assessment based on the small number of participants and the assessment's focus on arithmetic skills. In the future, a more robust support group population is needed to provide a more thorough analysis of quality of life and health literacy trends.

Closing the Gaps: UnityPoint Health-Meriter's Continuum of Care COPD Pilot Program

Laura Belmonte, 2021 PharmD Candidate, Dawn Eberhardt, PharmD

Background: The UnityPoint Health-Meriter Hospital (UPHMH) Discharge Pharmacy Program (DPP) was developed to improve patient outcomes and reduce readmissions by enhancing patient access and understanding of discharge medications. The initial objective was to deliver "meds to beds," but program priorities have evolved to more proactive and complex pharmacy services which facilitate safe care transitions from hospital to home.

UPHMH employs pharmacy student interns for implementation of temporary summer pilot programs. The focus of this year's pilot was to improve transitions of care for COPD patients via post-discharge follow-up telephone calls during a three-month period from late May to early August. The phone calls have facilitated the assessment of medication knowledge, adherence to discharge plan, and financial barriers

Methods: UPHMH COPD patients were identified utilizing Epic software. Eligible patients included in the COPD pilot program must have had a diagnosis of "COPD exacerbation" or related complications including dyspnea on exertion, pneumonia, or acute respiratory failure associated with COPD. Post-discharge telephone calls were completed at a minimum of 2 days prior to the patient's primary care physician (PCP) follow-up appointment. COPD medication education and interventions were made as needed based on consultation at discharge or during follow-up. Referrals were made to the PCMH ACP for patients having a Meriter PCP in need of further intervention.

Results: A total of 73 patients were admitted for a COPD exacerbation between June 1st and July 31st. A total of 12/73 patients had a Meriter PCP. Referrals were made to a PCMH ACP for 6/12 patients with a Meriter PCP (50%). No patients were readmitted after referral to the PCMH ACP (0/6). The DPP made a total of 35 interventions at discharge while an additional 40 interventions were made via follow-up telephone call. To ensure patient compliance, interventions consisted of further education on multiple inhalers, correcting misinterpreted instructions, and medication access assistance. A total of 33/40 interventions were associated with a LACE Score of 7 or greater (82.5%) and 34/40 inventions were associated with patients having 3 or more comorbidities (85%) which established our criteria for future referrals.

Conclusion: Transitions of care, or the transition from one healthcare setting to another, is a critical component of patient care, particularly for elderly patients discharged with multiple chronic conditions and complex therapeutic regimens. With the 2019 COPD summer pilot, we were able to establish referral criteria and identify patient knowledge gaps that occurred throughout the transitions of care continuum. We are hopeful that further disease-state specific programs, beginning with COPD, will improve patient care and ultimately lead to more successful patient outcomes.

Design and Pilot of a Proton-pump Inhibitor Deprescribing Program for Older Adults in a Clinic Pharmacy Setting

Paige Gundrum, 2020 PharmD Candidate, Ally Cooley, 2020 PharmD Candidate, Jordan Hilsenhoff, 2020 PharmD Candidate, Julia Gilbertson, 2020 PharmD Candidate, Katie Flesch, 2020 PharmD Candidate, Tanvee Thakur, PharmD, Daniel Ricci, PharmD

Background: Proton pump inhibitors (PPIs) are among the most frequently prescribed classes of medication, but have few indications that warrant long-term use. Inappropriate long-term use of these medications can result in adverse effects, including, but not limited to, renal disease, increased risk of bone fracture, and Clostridium difficile infection. Considering the immediate benefit to patients and the lack of observable short-term side effects, these medications are rarely monitored over time to ensure appropriate duration of therapy.

Objectives: The goal of this pilot study was to create a pharmacy-led, patient-centered process for deprescription of inappropriate PPIs in patients 65 years and older. The main objectives of this two-week pilot study were to (1) make at least two recommendations to providers regarding deprescribing a patient's PPI, and (2) to assess pharmacist opinions about incorporating this service into their outpatient pharmacy.

Methods: In partnership with SSM Health East Outpatient Clinic Pharmacy, third-year students from the University of Wisconsin-Madison School of Pharmacy developed the tools for a two-week pilot program to (1) identify patients 65 years or older who were using a PPI for more than 2 weeks without an appropriate indication based on a 2017 clinical practice guideline for deprescribing PPIs, (2) educate patients during consultation on the potential risks and benefits of these medications with the aid of a patient brochure, and (3) contact providers with a recommended tapering schedule and rationale on behalf of patients expressing interest in discontinuation after pharmacist consultation. Data was collected on a spreadsheet located in the pharmacy.

Results: During the two-week pilot study, ten patients age 65 and older on a PPI were identified. Of those ten patients, eight were candidates for deprescribing, six were consulted during that time period, two agreed to the pharmacy contacting their prescriber, and one prescriber agreed to deprescribe the patient's PPI. Based on a follow up interview with a staff pharmacist after the pilot, there was positive reception of the service by the pharmacists involved.

Conclusion: This two-week pilot study showed that clinic pharmacy deprescribing programs may be effective in educating patients on the risks of PPIs, reducing inappropriate long-term use, and improving patient-centered care. Larger scale interventions are needed to determine the complete benefit of a PPI deprescribing program in outpatient pharmacy settings.

Use of Thromboelastrography for Perioperative Bleeding in Cardiac Surgery at an Academic Medical Center

Ana Bienvenida, PharmD, Anne Rose, PharmD, Josh Hermsen MD, Theodore Berei, PharmD

Background: Viscoelastic homeostatic assays, such as thromboelastography (TEG), have the potential to impact coagulation management and transfusion practice in cardiac surgery. Despite advances in peri-procedural coagulopathy management, cardiac surgery continues to be associated with excessive blood loss, leading to blood and factor replacement, and transfusion-related complications. TEG based algorithms for trauma patients have shown decreased mortality rates, reduction in blood utilization and a subsequent decrease in inpatient cost. Unfortunately, the literature for utilization of TEG in cardiac surgery is less defined.

Objectives: Implement a TEG-guided transfusion algorithm for intra-operative use in cardiac surgery to optimize blood product and factor use

Methods: Single-center before-after, observational study of blood product and factor usage in patients undergoing cardiac surgery procedures pre- and post-implementation of a TEG-guided blood and factor replacement algorithm. Pre-implementation blood product and factor usage was generated from the Society of Thoracic Surgeons (STS) Adult Cardiac Database, a national repository of clinical outcomes of cardio-thoracic surgery records. This report identified all cardiac cases between September 2016 and August 2018 at our institution. This report also generated total units of blood products divided into the following subcategories: red blood cells, fresh frozen plasma, platelets, and cryoprecipitate. Post-implementation of blood and clotting factor use was identified by intra-operative administration data taken from the electronic health record generated by the STS database beginning January 14th, 2019 to April 15th, 2019. Patients were included if they were 18 years or older undergoing a complex cardiac case during the designated study time frame. Patients were excluded if they were undergoing a transcatheter aortic valve replacement (TAVR), mitral clips, wire/lead replacements, chest re-explorations/closures, and/or ECMO cannulation.

Results: From September 1, 2016 to August 31, 2018 there were a total of 1030 cardiac surgeries excluding mitral clips, sternal debridements and wire removals. Blood products were used in 70.3% (n=725) of cardiac surgeries. The average units of red blood cells (RBC), fresh frozen plasma (FFP), platelets and cryoprecipitate (CPP) for cardiac surgeries that utilized intra-operative blood products were 0.97, 1.07, 1.33, and 0.56, respectively. From January 14th, 2019 to April 15th, 2019, there were a total of 134 cardiac cases. Blood products were used in 78.4% of cardiac surgeries, a statistically significant increase from pre-TEG implementation ($p = 0.055$). The average units of intraoperative CPP and platelets increased significantly to 0.96 ($p < 0.001$) and 1.07 ($p=0.004$).

Conclusions: Implementation of a TEG-guided algorithm did not reduce the use of intraoperative blood product use in cardiac surgery. Rather, post-TEG guided implementation showed an overall significant increase of intraoperative blood product use within 4-months of implementation. The TEG-guided algorithm use, however, was not mandatory and it is unknown whether providers were using the algorithm to guide transfusion practice.

PSW Legislative Day Preparatory Sessions: An Analysis of Student Knowledge and Confidence

Inez Pabian, 2020 PharmD Candidate, Alexander Thorp, 2020 PharmD Candidate, Audrey Schmidt, 2020 PharmD Candidate, Christopher Tran, 2020 PharmD Candidate

Background: The Pharmacy Society of Wisconsin (PSW) Legislative Day is an annual event where pharmacists, students, and technicians meet with state legislators to advocate for their profession. Advocates are provided bill briefings and tasked with seeking legislative support.

Objective: To determine the effect of attending Legislative Day preparatory sessions on students' knowledge of bills and confidence during visits with legislators.

Methods: In this cross-sectional, survey-based study, Student organizations at the Medical College of Wisconsin School of Pharmacy (MCW-SOP) developed three preparatory sessions. A five-point ordinal survey to assess the student's perception of preparedness for office visits was distributed to all MCW-SOP students before the first session and after Legislative Day. Surveys were analyzed using inferential to determine if there was a significant difference in knowledge of bills and confidence during office visits. A chi-squared analysis compared survey results of students who attended ≥1 session to no attendance with a p-value ≤ 0.05 representing statistical significance.

Results: Sixty-five percent of participants reported being confident in their preparation and ability to seek the approval of legislators after attending one session. A sub-group analysis of students who completed both pre- and post-session surveys (n=10) found that student preparedness for bill-related knowledge increased significantly for each bill ($p<0.05$). Correspondingly, confidence during office visits increased from 50% to 90% ($p=0.0251$).

Conclusion: Statewide, schools of pharmacy should incorporate similar sessions to encourage student legislative participation and inspire future advocacy.

Longitudinal Evaluation of Pharmacy Students' Metacognition in Interpretation of Evidence-Based Medicine

Sarah Shah, MS, BPharm, Denise Walbrandt Pigarelli, PharmD, Amanda Margolis, PharmD, MS, BCACP

Background: Evidence-based medicine skills employed to answer clinical and other pharmacy-related questions are essential elements of contemporary pharmacy practice.The University of Wisconsin-Madison School of Pharmacy uses a threaded approach to teach the skill of evidence-based decision-making over a three-year period.Metacognition is an important professional skill. It is one's ability to "think about thinking" and to understand what knowledge and skills one has. Pharmacy professionals are required to have high metacognitive skills to ensure they are aware of what information they know versus when they need to utilize resources.

Objective: To conduct a longitudinal evaluation of pharmacy students' metacognitive ability via analysis of knowledge and confidence in evidence-based medicine (EBM) skills.

Methods: A series of four surveys were administered to the graduating classes of 2017 and 2018 from the beginning of the P2 drug literature evaluation course (baseline) through graduation. The surveys included 7 self-confidence questions for which a corresponding knowledge question was asked. These questions assessed students' confidence in calculating and interpreting statistical concepts encountered in journal articles. A 5-point scale (1=poor to 5=excellent) was used to assess confidence whereas responses to knowledge questions were assessed as correct, incorrect and "don't know." Students with low confidence (score=1 or 2) and incorrect or "don't know" responses on knowledge questions were considered a match. Similarly, students with high confidence (score=4 or 5) and correct responses were considered a match. The other scenarios were considered a "mismatch." We hypothesized that students' metacognition will improve as they advance in their curriculum. Descriptive statistics were used to characterize proportion of matches.

Results: Out of 264 students, 58 students completed all surveys and were included in the per-protocol analysis of metacognition. Overall proportion of matches at baseline was 40%, after survey 2 was 67%, after survey 3 was 73% and finally at graduation was 74%. Proportion of matches at baseline for all 7 questions were ranged from 30-60%. Proportion of matches at graduation for 5 out 7 questions were ranged from 70-95% and the remaining two questions were 52%. Continued poor match up to graduation could be due to be poorly framed questions. An improvement in metacognition was seen in 6 out 7 questions.

Implication: This study provides evidence of improved metacognition among pharmacy students from P2 year to graduation.

Evaluation of an Intravenous Compounding Robot for Anticipatory Sterile Stock Medication Production

Taylor MacKinnon, PharmD, Kimberly Harrison, PharmD, Aaron P. Webb, PharmD, MS

Background: Pharmacy automation has become mainstream in various areas of the medication use system. However, expansion into sterile product preparation has been limited as noted that 64% of hospitals are not utilizing any technologies. Implementing an intravenous hazardous compounding robot has demonstrated mitigation of errors, decreased waste, increased operational efficiency, reallocation of pharmacist time, electronic audit trail, cost savings, increased employee safety, and opportunities for insourcing products when compared to the traditional method of IV compounding. There is limited information in the literature that demonstrates benefits and return on investment for non-hazardous compounding robots, specifically for anticipatory compounding. The purpose of this investigation is to evaluate an intravenous compounding robot for anticipatory sterile stock medication on safety and operational efficiency.

Objectives: The objectives of this project are to install an intravenous compounding robot and management software, coordinate qualification testing of the intravenous compounding robot, and perform an evaluation of the intravenous compounding robot for anticipatory sterile stock medications.

Methods: A project workgroup will be created and will comprise of pharmacy operations, facilities, informatics, external cleanroom certification group, and robot manufacturer stakeholders. The workgroup will be leading a 7-month evaluation comprised of four phases: installation, qualification testing, performance testing, and robot evaluation.

The installation phase will focus on the development of operating procedures, airflow certification, and execution of device cycles to verify proper setup.

Qualification testing will verify expected performance and accuracy of the robot, perform environmental sampling, conduct simulations of batch compounding, conduct pharmacist and technician education, validate user competency, and develop operational workflow.

Performance testing will concentrate on compounding products with the robot and perform environmental sampling. Direct observation time studies will be conducted to compare the traditional/manual and robotic compounding.

Determination of robot efficiency will be calculated based upon predetermined key performance indicators in the last phase of the evaluation.

Results & Conclusion: Anticipated key performance indicators of the robotic compounding will be compared to the traditional/manual method of compounding. These indicators be: average total time per dose prepared, average process time per compounding step, average technician time per dose, average pharmacist time per dose, accuracy of doses, average cost per dose, average monthly drug waste, and a return on investment based on expected capital expenditure and/or operating expenditure.

Implementation of "Meds to Beds," a Bedside Delivery of Discharge Medications at UW Health at The American Center (TAC)

Emily Griesbach PharmD, BCPS, and Trisha Ludwig, PharmD

Background: Current literature supports the use of bedside medication delivery programs as a complement to discharge medication counseling provided by a clinical pharmacist to reduce barriers in obtaining new medications, to promote patient satisfaction, and to increase hospital discharge medication revenue.

Objectives: The objectives of implementing this program were to improve patient satisfaction scores and to increase discharge prescription capture rate at UW Health at The American Center (TAC) outpatient pharmacy.

Methods: The "Meds to Beds" program was implemented on January 15th, 2019 and included patients being discharged from the inpatient units at UW Health at TAC. As an organization, UW Health requires a clinical pharmacist to provide counseling to each patient at discharge. The clinical pharmacist completing that medication education encouraged all patients and/or caregivers to fill discharge medications at TAC outpatient pharmacy to support a safe and efficient transition of care upon discharge. If the patient and/or caregiver accepted enrollment into the "Meds to Beds" program, the patient's prescriptions were sent to TAC outpatient pharmacy as well as a hand-off communication to the ambulatory pharmacist. Once the ambulatory pharmacist completed the final verification of the prescriptions and/or OTC medications, all prescription medications were placed in a tamper-evident security bag. The pharmacist or pharmacy technician who delivered the medications, collected the security bag(s) and signed the chain of custody form verifying the security seal(s) matched. Upon delivery, the patient verified they received counseling by a clinical pharmacist, verified the security bag number matched the number that left the pharmacy, and understood that the medications were only to be used after discharge.

Results: Data collection occurred during the first three months of program implementation and was compared to that of the three months prior to implementation. Although discharge prescription capture rate did not increase significantly (3-months pre-implementation 57.8% vs. post-implementation 59.8%), UW Health at TAC outpatient pharmacy saw a significant increase in its revenue (21%) and gross margin (69%). At this time, Press Ganey survey results for 2019 have not become available. When available, these scores will be utilized to determine if patients experienced an overall higher satisfaction with the discharge process when receiving discharge medications delivered to their bedside.

Conclusions: The implementation of "Meds to Beds" contributed to increased revenue growth for UW Health at TAC outpatient pharmacy. The successful establishment of a safe, reliable and uniform method of delivering discharge medications to the inpatient units, highlights the opportunity for expansion of the program to other areas of the hospital, such as TAC Emergency Department or surgical services. Additionally, this pilot program may be used as a model for implementing a similar procedure for medication delivery at discharge at UW Hospital.

Measuring and Marketing the UW Health Specialty Pharmacy Program

Javon Artis, PharmD

Background: The practice of specialty pharmacy has grown exponentially over the last several years. Pharmacy benefit managers, retail chains and health-systems are all offering specialty pharmacy services to meet the rising demand for specialty medications. As the demand for specialty medications has risen, so has the responsibility of the specialty medication dispensing pharmacy. Measuring and capturing meaningful outcomes are also a way to ensure optimal patient care. It is quickly becoming a key differentiator between the care a health-system owned specialty pharmacy can provide and that provided by retail chain. Effective clinical monitoring enhances adherence and improves the outcomes for the patient.

UW Health's specialty pharmacy offers robust clinical services including over sixteen ambulatory pharmacies, home delivery of medications, adherence packaging and integrated prior authorization services. We are triple accredited, (URAC, CPPA, and ACHC) and provide our clinical services to over 4,000 patients. However, the means in which we acquire and report our clinical data needed to be evaluated and optimized. Currently, our pharmacists utilize a custom sequence of questions based on disease state that guides the conversation between our specialty pharmacist and the patient. This sequence of questions and answers is termed a module. The issue is that these modules aren't built for every disease state, there's low satisfaction with the workflow, and the information captured within the modules is not visible to end users.

Objectives: The objectives of this project are to optimize the specialty modules and outcomes reporting and blueprint the UW Health specialty pharmacy.

Methods: The disease states that would be targeted for optimizing the specialty modules used to capture pertinent patient outcomes was identified using a priority matrix. The dimensions of the matrix were accreditation need, payer need, current build status, identified content experts, and current build status. Once the modules were prioritized, an analysis of the module build and reporting means was evaluated by the project implementation team, which consists a lead investigator, ambulatory and specialty pharmacy leadership, pharmacy informatics leadership, clinician champions, and clinical pharmacists. A gap analysis on the means of reporting the outcomes for the specialty pharmacy patients was conducted, and a new means of reporting was identified. The means for capturing the pertinent metrics for each disease state was evaluated by the project implementation team. The process was standardized through the creation of a module build template and operational timeline. The build of this generic module was documented to begin the construct of the build blueprint of the UW Health specialty pharmacy modules. The remaining aspects of the blueprint were decided upon, and completed, by the project implementation team. Each module in the implementation timeline was evaluated by clinical experts for appropriateness in terms of actionable metrics. These metrics were implemented as clinical questionnaires within each module and served as outcome benchmarks for specialty disease states. Once the build of the modules and the blueprint were complete, the information was shared with payers, manufacturers and employer groups.

Results and Conclusions: Research in progress.