Ochsner Journal 16:e43–e53, 2016

ABSTRACTS

7th Annual Evidence-Based Practice/Research Conference
Translating Research into Practice: What Works and What Doesn't?

October 19, 2015
Ochsner Health System, Center for Nursing Research, and Louisiana State University Health Sciences Center, School of Nursing
New Orleans, LA

G1. Short Message Service Reminders to Increase Appointment Attendance in Primary Care: A Quality Improvement Project

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Background: The challenge of increasing appointment attendance is of particular concern to outpatient primary care practices that serve underinsured and uninsured populations. One of these practices in particular, the Community Medicine Primary Care Clinic (CMPCC) at Interim Louisiana Public Hospital (ILH) in New Orleans, LA, has had an appointment attendance rate in the 50th percentile during the past 5 years.

Methods: This quality improvement project examined the effect of short message service (SMS) reminders on appointment attendance in the CMPCC with a goal of exhibiting a 5% increase during 4 months. Of the patients scheduled in the CMPCC between April and July 2013 (n=5,571), those with mobile phone numbers were sent SMS reminders 1 week and 1 day before scheduled appointments. Results indicated that 3,419 of the 5,571 patients scheduled had a mobile phone number.

Results: Patients with mobile phone numbers were sent an SMS reminder, resulting in an appointment attendance rate of 84.9%. The 2,152 patients who did not have a mobile phone number were not sent an SMS reminder and had an overall appointment attendance rate of 34.3%. Cumulatively, appointment attendance increased to 65.4% during the 4 months compared to the 55.5% August 2012 to December 2012 appointment attendance rate.

Conclusion: SMS-based technology can offer a time-, labor-, and cost-efficient strategy for increasing appointment attendance. The ease with which large numbers of messages can be customized and sent by SMS text messaging, along with its availability and comparatively low cost, suggests it may be a suitable means of improving patient attendance in the primary care setting.

G2. Development of Colorectal Cancer Screening Patient Education Materials and Methods in Rural Community Clinics

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Background: The national and Louisiana Colorectal Cancer Roundtable goal is to screen 80% of asymptomatic adults $\geq$50 years old by 2018. Patient education strategies are needed to promote the use of the fecal immunochemical test (FIT), the most feasible, cost-effective, and sensitive colorectal cancer screening option for low-income and rural patients. Health literacy guidelines call for patient educational materials to be understandable and actionable. Evidence suggests that eliciting patient input enhances patient comprehension and improves the utility of materials. The purpose of this project was to elicit patient feedback on colorectal cancer screening educational materials developed by the authors, use of the FIT, and telephone reminder calls.

Methods: The authors conducted 3 focus groups and 20 iterative individual interviews in 3 rural community clinics. Participants were given iterative drafts of a colorectal cancer screening pamphlet (developed by the authors and written at the fourth grade reading level) and simplified FIT instructions (written at a third grade reading level) and were asked about wording and pictures, clarity, appeal, and cultural appropriateness. They were asked to identify what was helpful, what was confusing, and what else was needed.

Results: Patients preferred the simplified to the standard FIT instructions. Patients liked simple drawings illustrating specific steps in test completion and suggested adding "Do not store stool sample in refrigerator" and spelling out what "FIT" stands for. Some patients confused colon screening with prostate examinations, illustrating the need to explore perceptions and understanding in the accompanying verbal education. They suggested a motivating title for the instructions: "Do It Yourself, An Easy Colon Cancer Test You Do at Home." For the educational pamphlet, patients liked the action-oriented title "Get Screened for Colon Cancer" and suggested putting the benefit "It Can Save Your Life" as a subtitle. When shown a variety of covers, they preferred multicultural photographs of men and women $>$50 years to illustrate who needs testing.

G3. Health in Our Hands: Using Tablet Technology to Connect Patients to Research

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Background: Health in Our Hands (HiOH) was developed by the Research Action for Health Network (REACHnet) as a method for increasing patient engagement in pragmatic comparative effectiveness research. Through the HiOH network, patients have access to personalized research content and health information, including trial results and eligibility criteria for current studies. In 2015, as a member of REACHnet, Ochsner Health System deployed the pragmatic trials app suite (PTAS), a tablet-based, patient-facing app platform designed to allow e-consenting of patients into HiOH. This mobile technology will also be used for recruitment into clinical trials and is intended to increase efficiencies for research and clinical staff, allowing research to be incorporated seamlessly into the clinical workflow.

Methods: During a period of 5 months (March through July), 141 handheld tablets were placed in the examination rooms of 11 primary care and specialty clinics within the Ochsner Health System. Tablet software was integrated with the electronic medical record, allowing staff to sync the tablet for each patient through a simple, single-step process contained entirely within Epic. During downtime in the examination room, patients were invited to view a brief recruitment video for HiOH and were given the opportunity to join the network via e-consent and/or to complete a brief health survey.

Results: From March 16 to August 31, 1,481 patients were enrolled into HiOH. Approximately 29% of patients who viewed the recruitment video consented into the network, and 38% of patients completed the short health survey.

Conclusion: The technology used in this project presents a promising method for increasing patient engagement in research and incorporating research activities efficiently into the clinical workflow. The utility of this approach for recruitment into pragmatic clinical trials will be determined in future studies that employ the PTAS and HiOH.

G4. Preventing Unplanned Extubation in Neonates

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Background: Unplanned extubation (UE) is a patient safety and quality control issue. Maintaining the patency and correct positioning of the endotracheal tube (ETT) is very important for safe/effective respiratory management of neonates. The project aim was to maintain UE rates (UE/100 ventilator days) <1.5, with the ultimate goal of zero.

Methods: A quality improvement initiative to reduce/eliminate UE was done in a 54-bed Level III+ regional neonatal intensive care unit (NICU) in the Southeast United States. Best practice recommendations include (1) appropriate ETT fixation using a standardized ETT stabilizer and tape strategy, (2) frequent assessment of ETT securement and change frequency every 5 days and PRN, (3) daily assessment of the need for ETT for ventilation, (4) a standardized planned extubation guideline, and (4) maintenance of appropriate staffing for intubated patients. A multifaceted educational approach (unit meetings, email PowerPoints, shift huddles), a poster describing Plan-Do-Study-Act cycles for change, daily interdisciplinary rounds to assess the need for ETT, and visual cue cards on ventilators as reminders were used to transition best practice for the reduction of UE. To drive change, the project team promoted interdisciplinary commitment to sustain compliance with the standardized best practice bundle for prevention of UE in neonates. UE occurrences were entered into the online occurrence reporting site, and the unit safety team investigated each occurrence to identify

trends/opportunities for improvement in the processes. UE rates were calculated as the number of UE/100 ventilator days each month. In addition, ventilator bundle compliance was audited monthly.

Results: Although UE rates remain variable, there is a downward trend to below the goal of 1.5 UE/100 ventilator days. Within the last year, only 2 months were above the unit goal.

Conclusion: Our interprofessional NICU team continues to drive and sustain best practices to continuously seek the best outcomes for our neonates.

G5. Collaborating to Reduce Surgical Site Infections in C-Sections

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Background: In 2014, Ochsner Medical Center Kenner (OMCK) recognized an issue with surgical site infections (SSI) in patients who received C-sections. Investigation revealed a 4% infection rate; the national benchmark is 1%. The patients with infections were examined for organism, length of membrane rupture, emergent cases, common staff, closure technique, environment, and other factors. The only commonality found was that 40% of the patients with infections had a body mass index $>$40.

Methods: After an extensive literature review, infection prevention made a list of recommendations to reduce C-section SSIs. This list included morning wipedown of surgical rooms, closely limiting the time that the sterile field is open prior to cases, preoperative antibiotics increasing to 3 g for patients $>$250 lbs, preoperative chlorhexidine (CHG) bathing for patients scheduled for C-sections, discouraging patients from shaving the perineal area in the last trimester of pregnancy, aggressive enforcement of staff hand hygiene compliance, strict adherence to the Association of periOperative Registered Nurses standard for surgical attire and personal protective equiment, instituting scrub checkoffs for residents, retraining of staff in the use of ChloraPrep per manufacturer instructions, wound coverage for up to 48 hours, discharging patients with hand sanitizer and instructions for use, specific instructions related to postoperative wound care, CHG to wound on day of discharge, and follow-up call to patients 1 week postoperatively. These recommendations were presented to the Department of Obstetrics and Gynecology in August 2014, and implementation occurred between September and January.

Results: The result has been a reduction of C-section SSIs. Currently OMCK has a C-section infection rate of 1.1%.

Conclusion: The implementation of nationally recognized standards of practice and infection control principles as well as continuous attention to compliance and details achieved the desired result of a decrease in the of C-section SSI rate at OMCK.

G6. Leveraging Value from Patient Quality and Safety Through the Near Elimination of Ventilator-Associated Pneumonia in the Critical Care Unit of Chabert Medical Center

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Background: In September 2013, our organization implemented best practices to reduce ventilator-associated pneumonia (VAP) rates in the critical care unit (CCU). The system benchmark is 0.6/1,000 device use days (DUD). The baseline VAP rate (2012-2013) was 3.07/1,000 DUD. The purpose of this project was to decrease VAP rates in the CCU to below the system benchmark.

Methods: An interprofessional team implemented the following best practices: utilization of Epic decision support and documentation of ventilator management, observation audits of the ventilator bundle conducted by infection control using the care compliance monitoring tool, and ongoing tracking using a ventilator event data collection tool. Retrospective data (2012-2013) were used to establish a baseline. Outcome and process measures included ventilator patient days, incidence of VAP diagnoses, ventilator bundle compliance among physicians and nurses, number of Epic alerts with reported required documentation, and continuous monitoring of respiratory status of ventilated patients with prompt required response.

Results: The VAP rate fell to zero for the first 8 months of this project. The estimated cost savings associated with the reduction of VAP compared to 2012 VAP rates was $142,170 per month. The combined total value to date is an estimated $3,554,250; human safety is immeasurable.

Conclusion: Daily monitoring, immediate responses to status changes by providers, and the use of the Epic electronic medical record enabled providers to eliminate potentially fatal complications of VAP in this organization.

G7. Decreasing Risks for Phlebitis Among Patients Receiving Amiodarone Infusions: An Evidence-Based Journey

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Background: While on orientation in the medical intensive care unit at the University of Texas Medical Branch (UTMB) at Galveston, a nurse clinician who had administered amiodarone infusions at another institution asked if UTMB policy mandated the use of an in-line filter for all amiodarone infusions as mandated by his former institution's policy. We accessed the UTMB Filtration Recommendations Summary, and it stated to only use an in-line filter when a drug concentration other than 900 mg/500 mL (standard concentration) is administered. This clinical question prompted a full evidence review in an effort to apply best evidence to clinical practice at our institution.

Methods: The UTMB Disciplined Clinical Inquiry (DCI) model was applied to the clinical question to develop a clinical question, access the evidence, assess the evidence, apply the evidence, and alert our peers. The UTMB DCI website is a one-stop resource that mainstreams the evidence-based process through the use of multimedia links in a step-by-step fashion in order from best evidence to least best evidence.

Results: The following clinical question was developed: In patients receiving amiodarone infusions, should an in-line filter be utilized to reduce the incidence of phlebitis? A full evidence review was performed and revealed that all amiodarone infusions should be administered utilizing an in-line filter to reduce the incidence of phlebitis.

Conclusion: The answer to our clinical question was found utilizing a systematic approach (DCI model), allowing for application to the practice setting. After receiving the endorsement of our internal multidisciplinary pharmacy committee, education was created and provided to nurse clinicians, the infusion policy was amended to reflect the practice change, and the electronic medical record was modified to include administration instructions to use a filter on all amiodarone infusions. This practice change was successfully implemented, reducing the potential for harm to our patients.

G8. Interprofessional Implementation of the Richmond Agitation Sedation Scale Tool Within a Nonacademic Setting to Prevent Oversedation in the Mechanically Ventilated Adult

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Background: Mechanically ventilated critically ill patients receiving continual intravenous sedation are one of the most vulnerable populations in the hospital setting. Numerous studies during the past 15 years recommend the use of a valid sedation assessment tool to prevent oversedation. The author aimed to improve patient safety, increase the quality of care via interprofessional collaboration, and reduce oversedation to benefit all stakeholders.

Methods: The author's efforts entailed a quality improvement (QI) project utilizing a quasi-experimental design to measure the amount of change the intervention positively impacted the performance measures discussed below. The QI project was conducted in the medical and surgical intensive care units (ICUs) of a nonacademic 430-bed community hospital in a suburban city outside of New Orleans, LA. Inclusion criteria for project participants were adults with all diagnoses associated with required mechanical ventilation and continuous sedation infusions. The intervention utilized the Iowa Model of Evidence-Based Practice to Promote Quality Care to facilitate implementation of the Richmond Agitation Sedation Scale (RASS) tool and behavioral change among medical, nursing, and respiratory staff. Utilizing the RASS tool, medical providers ordered the desired level of sedation goal daily; nursing staff titrated sedative infusions to maintain the patient's prescribed RASS level and assessed and recorded the RASS score hourly; and respiratory therapy staff assessed and recorded RASS scores with every assessment.

Results: Despite a *P*-value of 0.66, the oversedation rate was reduced by 50% as intended. Length of stay for ventilated patients was reduced by 1 day; however, days on the ventilator remained unchanged from preproject performance measures. An estimated annual cost savings of $180,000 could be gained from reducing oversedation and ICU length of stay. This project demonstrated the potential to positively impact patient, system, population, and policy-related outcomes. Future studies will require enough time to attain an ample sample to facilitate statistical significance and long-term follow-up of complications after ICU and hospital discharge.

Conclusion: As the professional roles of advanced nursing practice evolve to meet the demands of healthcare consumers in academic and nonacademic settings, scholarly projects demonstrating clinically significant improvement and cost effectiveness are essential for the progression of the advanced nursing profession, practice inquiry, translational science, and comparable effectiveness research.

P1. Leveraging Value from Patient Quality and Safety by Elimination of Catheter-Associated Urinary Tract Infections at Chabert Medical Center

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Background: In July 2014, our organization implemented a multifaceted evidence-based intervention to reduce catheter-associated urinary tract infections (CAUTIs) guided by the Infectious Disease Society's Strategies to Prevent Catheter Associated Urinary Tract Infections in Acute Care Hospitals (2008). Utilizing published protocols and maximizing the benefits of the Epic electronic medical record (EMR), the goal was to eliminate CAUTIs.

Methods: An interprofessional team implemented the following best practice components: utilization of integrated data reports of criteria such as insertion, duration, and necessity of every indwelling catheter in Epic; standardized protocols for urinary catheter care and compliance audits of CAUTI bundle care; utilization of best practice alerts to guide clinical decisions; and access to flow charts and graphs for monitoring and reporting CAUTI usage.

Results: CAUTI rates decreased from 5% of all catheterized patients to 0% percent each month since December 2014. Annualized savings are estimated to be $200,000; safety benefits to the patients are immeasurable. CAUTI was avoided in more than 82 patients during the past 12 months.

Conclusion: The deliberate use of Epic clinical decision alert indicators by all patient providers combined with persistent compliance audits by infection control resulted in the dramatic reduction of hospital CAUTI infection rates to zero for the past 8 months.

P2. Quality Improvement Project: Implementation of an Evidence-Based Treatment Protocol for Managing Patients with Diabetic Ketoacidosis in the Emergency Department

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Background: This quality improvement project was conducted to implement and evaluate the effectiveness of an evidence-based practice (EBP) treatment protocol to manage diabetic ketoacidosis (DKA) in a rural emergency department (ED). DKA continues to be one of the most severe complications of both type 1 and type 2 diabetes mellitus. The condition causes tremendous physiologic changes that require prompt emergency management. A standardized approach for providers to recognize physical assessment findings, order diagnostic tests, and implement corrective interventions may reduce morbidity and mortality and improve outcomes.

Methods: A retrospective, descriptive, observational design was used to determine whether the protocol would improve clinical outcomes via care delivery, efficiency, safety, and DKA resolution. A secondary measure included whether the protocol would successfully improve standardization of care among ED providers. The EBP protocol was implemented for 60 days beginning February 2, 2015 and ending April 30, 2015. Data from a retrospective chart review (historic control group) and data obtained from current charts using the protocol (current protocol group) were used to answer the clinical question. A comparison of demographic information such as race, sex, and age was conducted to confirm sample similarity. A data collection tool developed by the Joint British Diabetes Societies (JBDS) was modified with permission to capture pertinent clinical data. Data analysis was done manually for means, averages, and percentages; more detailed analyses were conducted using Statistical Package for Social Sciences (SPSS; IBM) v.22 data software. The analysis included timely and efficient care (presentation to discharge time, presentation to DKA diagnosis time, diagnosis of DKA based on the American Diabetes Association [ADA] guidelines, timeliness of initial interventions, appropriate diagnostic tests, appropriate nursing care, appropriate use of insulin, appropriate fluid replacement, appropriate potassium replacement, appropriate bicarbonate administration, and DKA resolution). The secondary research outcome evaluated for standardization of care among providers.

Results: Two groups were studied, a historic control group (n=17) and the current protocol group (n=14) during a 3-month period. The data were compared to determine whether the protocol was effective in the above mentioned areas. No statistically significant differences were found among the groups for sex ($t(29)=1.036$, $P>0.05$), age ($t(29)=-0.213$, $P>0.05$), and race ($t(29)=1.119$, $P>0.05$). The means for the historic control group and current protocol group respectively were not significantly different with regards to sex ($M=1.47$, $SD=0.51$; $M=1.29$; $SD=0.47$), age ($M=30.35$, $SD=18.06$; $M=31.64$; $SD=15.03$), and race ($M=1.88$, $SD=0.69$; $M=1.57$; $SD=0.85$). There was no reduction in length of stay, but there was a 12-minute reduction in presentation to DKA

diagnostic time. Providers did not routinely reassess DKA resolution effectively in either group; therefore, the protocol achieved no difference in DKA resolution. Standardization of care was not achieved in the current protocol group because of low fidelity. The need for improvement was statistically identified in making the DKA diagnosis using the ADA diagnostic criteria, initial management within the first hour (standardization of the initial workup, intravenous rehydration and electrolyte replacement, use of insulin), ongoing management of providers and nursing (reassessment of status by ordering diagnostic tests and timely intervals and nursing management), and assessing for DKA resolution prior to ED departure.

Conclusion: The EBP protocol for managing DKA in a rural ED demonstrated improvement in presentation to DKA diagnostic time and a few areas in ongoing management of care. Many areas were identified in the data analysis in which improvements are needed. The evidence reported from this quality improvement initiative supports the need for a formal ED protocol to manage DKA to improve these areas of concern, standardize care, and appropriately evaluate resolution.

P3. Tracking Ventilator Bundle Compliance and Ventilator-Associated Events

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Background: Ventilator-associated events (VAEs) are identified by using a combination of objective criteria: deterioration in respiratory status after a period of stability or improvement on the ventilator, evidence of infection or inflammation, and laboratory evidence of respiratory infection. Reducing VAEs requires an organized process for early recognition of pneumonia and consistent application of the best evidence-based practices. Best practices to prevent VAEs include bundled interventions that decrease the duration of mechanical ventilation and associated outcomes such as length of stay, mortality, and/or costs. Strategies for sustaining best practice bundles include (1) observation and documentation audits of bundle elements, (2) ongoing data transparency of ventilator-associated pneumonia rates, and (3) communication of daily patient goals using multidisciplinary rounds in the critical care setting. The aim of this project was to track compliance with the ventilator bundle elements and disseminate the data to staff involved with the intent to reduce VAEs.

Methods: The stakeholders of this project were the critical care staff in a 179-bed acute care hospital. Observation audits and documentation review were used to track compliance to the ventilator bundle intervention elements from April 2011-June 2015. Summaries of bundle compliance and VAEs were communicated to unit directors monthly and reported monthly at the performance improvement meetings.

Results: Since April 2011, the ventilator bundle compliance has trended upward from its lowest at 67% to 100% in February 2013 and has remained above 90% through June 2015. There was 1 VAE in 2011, 3 in 2012, and 2 in 2013. There have been no VAEs since March 2013.

Conclusion: Providing the staff with ongoing feedback on compliance with ventilator bundle elements, providing education, and taking a multidisciplinary approach have helped sustain this initiative.

P4. Interdisciplinary Research Project to Improve Health Literacy

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Purpose: To work collaboratively to seek funding to support an interdisciplinary team to develop ways to improve colon cancer screening.

Background: Today's healthcare environment is extraordinarily complex and requires increased patient responsibility to negotiate the system, make decisions about health, and correctly follow therapeutic regimes. Health literacy is a key component in improving health outcomes; however, complex problems require a multifaceted and optimally an interdisciplinary approach. The challenge is to foster team formation and cohesion among individuals from different disciplines and perspectives. The complex issues of discipline perspective, experience, roles and responsibilities, time constraints, authorship, and communication format and style must be successfully negotiated before initiating the project. At the core of these issues is the need to develop trust and collegiality.

Methods: The goal of this project was the formation of an interdisciplinary research team to investigate interventions to improve health literacy and colorectal cancer screening. The annual Health Literacy Research Conference provided the setting for individuals from different disciplines to meet and discuss ideas. The shared goal of improving health literacy provided the opportunity to form a multidisciplinary team. The team sought funding to compare the effectiveness of two distinct follow-up strategies to promote colorectal cancer screening. The team consists of previously funded investigators, a statistician, physicians, nurse practitioner, and content experts.

Results: The interdisciplinary, multisite team was awarded a 5-year $1.3 million grant from the American Cancer Society **(**ACS RSG-13-021-01-CPPB**),** *Health Literacy Interventions to Overcome Disparities in Colorectal (CRC) Screening*.

Conclusions: A common research interest and interdisciplinary conference can provide the setting for individuals from different disciplines to dialog and succeed in forming a funded interdisciplinary research team.

P5. Code STEMI

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Background: By optimizing the resources at the facility, the development and implementation of a collaborative STEMI (ST segment elevation myocardial infarction) team will be completed. Through this team approach, the at-risk population presenting to the emergency department (ED) with a STEMI will be cared for with an evidence-based approach. The goal of the project was to decrease the door-to-balloon time to $\leq$60 minutes based on the internal organizational goal.

Methods: A peer-reviewed literature search for evidence-based practice methodologies and workflows on STEMI management was paired with retrospective quantitative data collection and comprehensive analysis to understand current state variation and to develop a future model. The interventions and sustained outcomes will be driven by utilizing the DMAIC (define, measure, analyze, improve, and control) approach.

Results: Initial outcomes have shown a considerable reduction in the time it takes to get a patient from intake in the ED setting to the cardiac catheterization laboratory (CCL). The preintervention average time is 1 hour 28 minutes with an n of 20, and the initial average time postimplementation of the new workflow is 32 minutes—a 64% reduction in door-to-intervention time. However, the n in the new group is only 2 at this time, so it is not statistically significant but is directionally correct.

Conclusion: New workflows were implemented in the way STEMI patients are moved from the ED to the CCL. All members of the Code STEMI team were identified, and patients are now being transported to the CCL with the oversight of the team and ED providers while the cardiologist and catheterization team are in route to the hospital. Continuation of data collection, review, and change implementation are essential to the continued success of the project.

P6. Prevention Is the Best Intervention: Evidence-Based Approach to Decreasing Pressure Ulcers in the Orthopedic Patient

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Background: The Ochsner Medical Center Westbank (OMC-WB) medical-surgical unit discovered areas for improvement in prevention efforts of hospital-acquired pressure ulcers (HAPUs). In 2014, OMC-WB had 51 HAPUs, 30% acquired from the medical-surgical unit. The aim of this project was to reduce the overall incidence of HAPUs by 20% on the medical-surgical unit by the end of year 2015.

Methods: Utilizing the Plan-Do-Study-Act model, the OMC-WB medical-surgical unit sought to reassess current strategies for pressure ulcer prevention by first looking at a baseline assessment of risk factor assessments. Random audits indicated that Braden scale ratings documentation varied as well as a lack of intervention documentation for at-risk patients. Phase one of the project included mandatory educational in-services on risk assessment during the course of 3 weeks followed by a 3-month random audit process for accuracy. Phase two of the project includes best practice prevention and intervention education and appropriate documentation.

Results: Prior to risk assessment education, a random audit check showed nearly a 50% inaccuracy in risk assessment. Upon completion of the phase one education, risk assessment audits showed an 18% inaccuracy rate. Although there is still room for improvement, this is a 64% decrease. It was also noted during the audits that interventions were documented only 36% of the time.

Discussion: The unit is currently in the second phase of the project and continues to educate new staff on risk assessment education. Education for both nurses and nursing assistant staff focuses on appropriate interventions based on risk factors and documentation. Although the unit has not seen a decline in the incidences of HAPUs yet, it is anticipated that HAPU incidence rates will decrease and documentation of intervention will increase as nurses and nursing assistants are educated.

P7. Amiodarone Phlebitis: A Nursing-Driven Quality Improvement Initiative to Reduce Patient Harm Related to Peripheral Intravenous Amiodarone Administration

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Background: Atrial fibrillation (AF) due to mechanical or chemical irritation is a common complication that develops after cardiothoracic surgery. This abnormal rhythm is frequently treated with amiodarone due to its widespread antiarrhythmic effects. Intravenous amiodarone is typically initiated, as the oral form requires an extended amount of time to reach therapeutic levels. The national incidence of phlebitis associated with peripheral intravenous (PIV) amiodarone infusion ranges from 14%-73%. We experienced a 100% incidence in 14 postsurgical thoracic oncology patients receiving intravenous amiodarone and implemented an interprofessional initiative to reduce peripheral vein phlebitis.

Methods: Current literature divided amiodarone-induced phlebitis prevention into nursing-led medication administration guidelines or interdisciplinary recommendations such as central line insertion and medication concentration change. Our initiative focused on unit-based education and training for PIV amiodarone infusions based on evidence from the literature. These changes included using low-sorb tubing, limiting peripheral infusion time, and selecting larger veins for amiodarone infusion. Postinitiative data were obtained by tracking reports of phlebitis through a Patient Safety Net during the course of 16 months, and phlebitis was rated using the visual infusion phlebitis (VIP) score.

Results: Rates of phlebitis with peripheral amiodarone infusion decreased to 72% postinitiative in 55 oncology patients. The VIP score did not change significantly (1.63 preinitiative vs 1.68 postinitiative), but the percentage of patients with multiple cases of phlebitis decreased from 45.5% to 24%. We conducted interdisciplinary meetings based on our outcomes and made the recommendation to standardize amiodarone infusion through appropriate tubing and larger veins. Development of an institutional policy and standard of practice for the intravenous administration of amiodarone is underway and data collection is ongoing.

Conclusions: There is a gap in the literature on the efficacious dose of amiodarone that can be safely administered via PIV in the oncology patient population. Our center found that current literature recommendations for nursing interventions decreased the incidence of phlebitis in our patient population, but incidence remains high. Additionally, it is difficult to identify the factors of amiodarone administration that are most associated with causing phlebitis. We propose that future nursing-led research investigate the appropriate amiodarone PIV dosage and route to determine a therapeutic effect to minimize the risk of patient harm.

P8. Improving Glycemic Control in the Critical Care Unit

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Background: Hyperglycemia is prevalent in the critical care setting for a number of reasons including history of diabetes mellitus (DM), undiagnosed DM, or stress hyperglycemia. Hyperglycemia is linked to decreased wound healing, increased infection, increased length of stay, and increased mortality.

Methods: Data collected by our EICU give us monthly information on how we are performing in important quality metrics such as venous thromboembolism prophylaxis, stress ulcer prophylaxis, and glycemic control. Glycemic control, more specifically average daily glucose $<$180 mg/dL, was identified as the metric with the greatest opportunity for improving. From the third quarter of 2013 through the second quarter of 2014, glycemic control compliance averaged 74%. In October 2014, the pulmonary team added two nurse practitioners (NPs). The NPs participated in daily multidisciplinary rounds when each patient case was reviewed. The quality metrics were added to the multidisciplinary round sheets to ensure each metric was addressed during rounds, and the

pulmonary team was able to adjust daily orders during rounds to meet quality metrics deficiencies. In addition, the NPs provided greater monitoring because of their 7am-7pm availability to monitor the patient changes throughout the shift and to adjust patient care if the patient was not responding to previous plan of care orders.

Results: The addition of the NPs on daily rounds positively impacted our quality metrics, specifically glycemic control. There has been a steady upward trend in glycemic control compliance from second quarter of 2014 (70.1%) to the first quarter of 2015 (81.4%).

Conclusion: Active NP participation provided a strong focus on quality metrics in multidisciplinary rounds. Ongoing evaluation of patients throughout the day was crucial to maintain our success in glycemic control in the critical care unit.