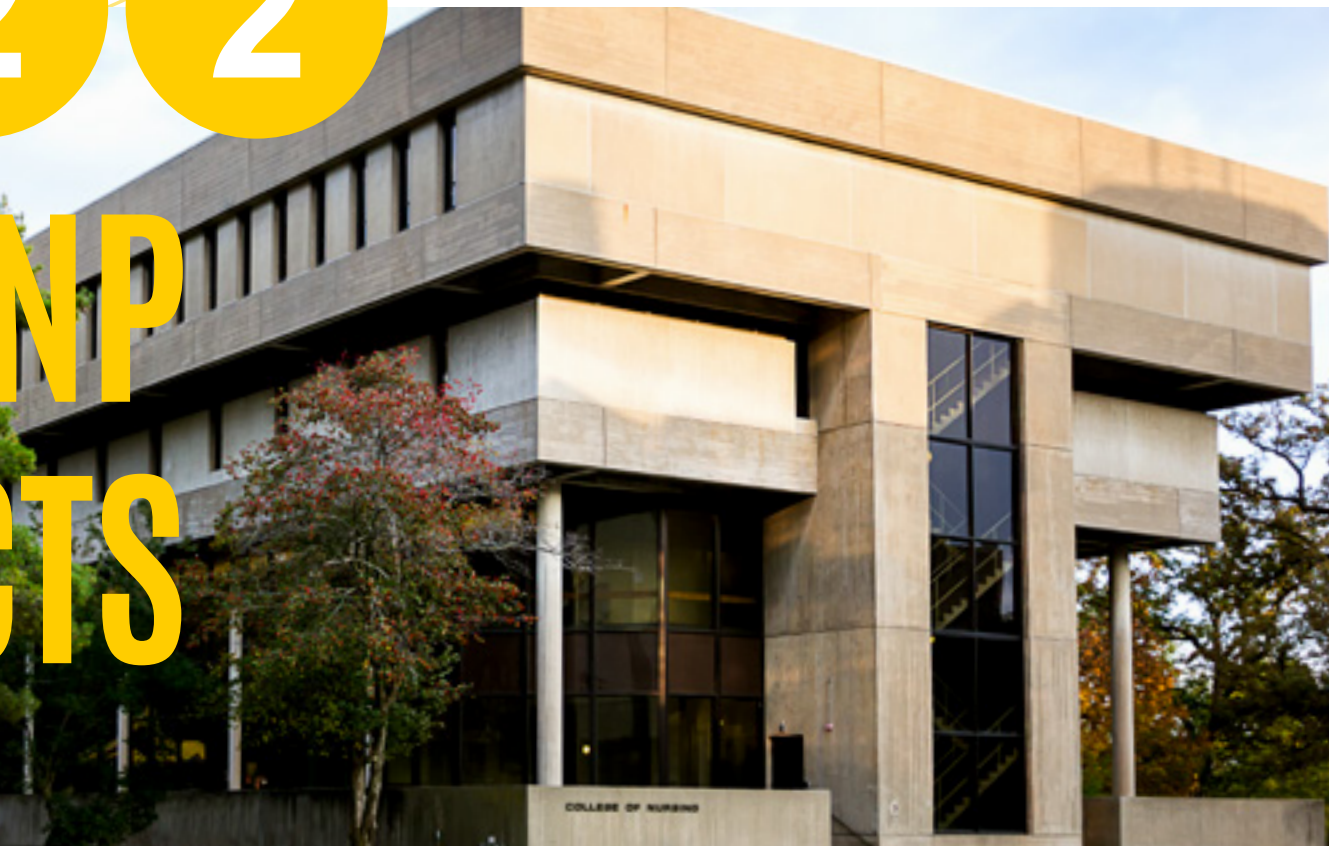


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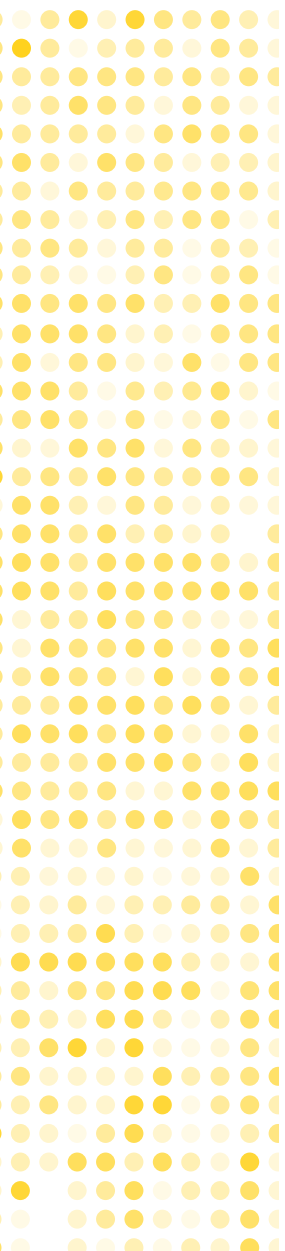
MSN/DNP PROJECTS



IOWA

College of Nursing

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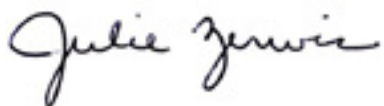
Congratulations

to our Doctorate of Nursing Practice and Masters of Science in Nursing graduates!

You have achieved an important milestone in your nursing career, and the University of Iowa College of Nursing faculty and staff are so pleased to have been part of your journey. Projects highlighted in this report represent the depth and breadth of quality improvement and evidenced-based practice projects you implemented to improve patient care in acute care, communities, and long-term care settings, to impact state regulations, or to identify the factors that contribute to a positive work environment and improved health systems.

Now is your time to use the skills you learned to inspire excellence, exceed expectations, and carry on what it means to be a graduate from the University of Iowa College of Nursing. Our health care systems will benefit from your leadership, your innovative spirit, and your willingness to push boundaries.

Go Hawks!



JULIE ZERWIC, PHD, RN, FAHA, FAAN
Kelting Dean and Professor





MSN/DNP Program Dean's Welcome

The future of healthcare is a lot brighter with the addition of these advanced practice nursing graduates!

The 2022 MSN Capstone Projects and DNP Scholarly Projects exemplify nursing leadership in the translation of evidence-based knowledge to bridge gaps, improve patient outcomes, and affect change across various health systems and organizations.

A handwritten signature in black ink that reads "Mary Dirks". The signature is fluid and cursive.

MARY S. DIRKS, DNP, ARNP, CPNP-PC, FAANP

Clinical Professor & Assistant Dean for Graduate Practice Programs

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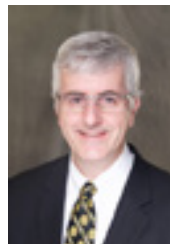
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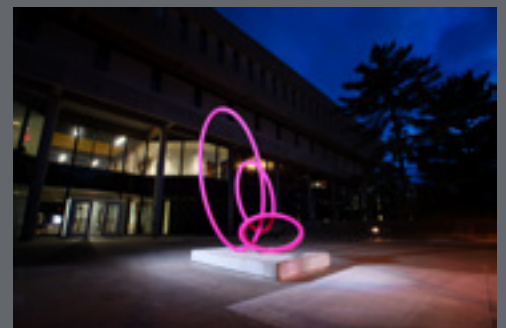
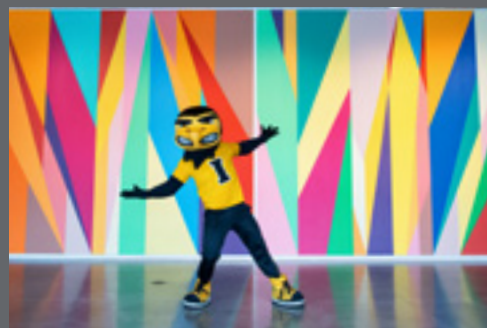
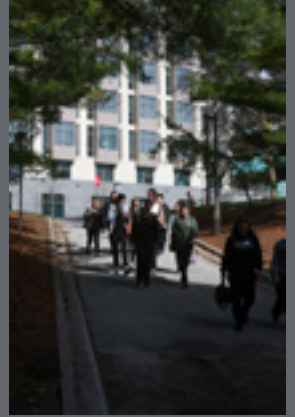
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MSN CLINICAL NURSE LEADER CAPSTONE PROJECTS

2

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CAREY DUCOMMUN

MSN, BSN, RN



Increasing Advance Care Planning Documentation

Purpose

To improve documentation, billing, and patient/family outcomes for advance care planning.

Method

Iowa Model Revised

Results

There was a 38% increase in documented IPOSTs on file at the annual wellness visit (AWV) from March 2021- March 2022.

Advance care planning charges at annual wellness visit (AWV) increased by 30% from March 2021-March 2022.

Implication for Practice

Improving awareness of workflow and using EPIC had an important impact on ACP, revenue, and documentation.

SARAH HACKBARTH

MSN, BSN, RN, CCRN



Reducing Hospital Readmissions through Post-Intensive Care Syndrome Mitigation Strategies and Post-Hospitalization Resources

Purpose

To educate patients and caregivers on both in-hospital and post-hospitalization risk mitigation strategies and services for PICS to reduce hospital readmission rates by 10%.

Method

Iowa Model Revised

Results

- 44% increase in patient understanding of PICS, PICS mitigation strategies, and PICS services.
- 23% increase in staff ability to comfortably initiate a conversation with patients or families about PICS.
- 16% increase with statement, I am now more likely to identify high-risk patients
- 45% increase with statement, “I have resources available to help teach patients and families about PICS.
- Monthly trends of readmission varied from 3.36%-11.6%.

Implication for Practice

New resources are now available to mitigate adverse outcomes for patients and families who are now at high risk for PICS.

Transition training to step-down unit setting when patients experience less delirium and have a greater chance of retaining the information to impact readmission.

KAYLYN HOFFMANN

MSN, BSN, RN

Lux Lighting in the Neonatal Intensive Care Unit

Purpose

To improve daily consistency of room lux lighting to reduce the discrepancy of gestational age (GA) on the neonatal intensive care unit of Stead Family Children's Hospital for infants born less than 36 weeks.

Method

Iowa Model Revised

Results

- Increase the use of eye covers by 30%
- Increase the use of blankets over isolettes by 50%.
- Increase in proper lux lighting dependent on gestational age by 75%.
- Increase in nurse knowledge of lux lighting as evident from post survey in the first three months of implementation by 75%.

Implication for Practice

Impact of Vertical Alignment: Leadership created a safe place where staff were encouraged to raise issues, provide feedback, share best practices, and ultimately feel valued, which all aimed to reduce apathy
Impact of Shared Governance: Having staff meetings empowered nursing staff to take ownership in the success of the unit, gave them management support, examined nursing practice issues, provided opportunity for education and in-services, and allowed for feedback and constructive conversations.

JENNA LISK HULSER

MSN, BSN, RN, OCN



Increasing Staff Satisfaction by Implementation of Staff Meetings

Purpose

To implement monthly staff meetings to improve staff satisfaction measured through a modified Press Ganey Survey.

Method

Iowa Model Revised

Results

A modified Press-Ganey pre and post survey was used. Staff reported:

- 34% improvement for communication between management and staff.
- 6% increase in responsiveness with their immediate supervisor.
- 14% increase with satisfaction of new communication methods.
- 25% agreed that monthly staff meetings made a positive difference, 25% disagreed, and 50% felt neutral.

Implication for Practice

Impact of Vertical Alignment: Leadership created a safe place where staff were encouraged to raise issues, provide feedback, share best practices, and ultimately feel valued, which all aimed to reduce apathy.

Impact of Shared Governance: Having staff meetings empowered nursing staff to take ownership in the success of the unit, gave them management support, examined nursing practice issues, provided opportunity for education and in-services, and allowed for feedback and constructive conversations.

CLAIRE MORRIS

MSN, BSN, RN



Decreasing ICU Delirium through the ABCDEF Interdisciplinary Rounding Tool

Purpose

To decrease hospital-induced delirium in the Intensive Care Unit.

Method

Iowa Method Revised

Results

- A 12% decrease in ICU delirium based on the Confusion Assessment Method for the Intensive Care Unit (CAM-ICU).
- EPIC updated to make deliriogenic medications the last input item.
- Interdisciplinary rounding team established to maintain effective communication (including early ambulation by PT).

Implication for Practice

This project was implemented by an RN traveler. It demonstrates that trust and relationship building can impact patient care whether you are a permanent employee or a traveler.

Evidence-based practice and communication within an interdisciplinary team were effective in implementing this ABCDEF bundle.

LYNETTE SCHAFFER

MSN, BSN, RN

Implementing a Nurse Residency Program

Purpose

To improve the retention and competencies of new nurse graduate hires

Implication for Practice

Implementing new programs requires leadership buy-in and support

Method

Program Planning and Implementation

Results

- Iowa Online Nurse Residency Program (IONRP) adopted as a pilot.
- Policy developed and implemented to encourage enrollment
- Monetary bonus was implemented as an incentive

ANGELA SHANAHAN

MSN, BSN, RN



Program Development to Increase Awareness and Intervene for Fall Risk in the Elderly

Purpose

To intervene on 50% of all patients identified at-risk for falls, to a virtual fall prevention program

Method

Quality Improvement

Results

Automated process for fall risk and prevention implemented:

- 32 at-risk patients were referred through an automated process
- 12 eligible patients were enrolled and completed an intervention
- There was a 38% enrollment rate into the program
- 64% of those enrolled were found to be at high risk for falling

Implication for Practice

Accurate coding within the annual wellness visit will lead to increased quality of visit and increased reimbursement

Patients were able to access and act upon the risk recommendations provided demonstrating feasibility.

The care team now has baseline activity levels to effectively aid in transitions of care.

Innovative fall care model to assess, stratify, and intervene for fall risks, is being considered as standard of care

JESSICA SHEVER

MSN, BSN, RN



Improving Care at the End of Life: Implementing the Respiratory Distress Observation Scale

Purpose

To improve the quality and consistency of assessing nonverbal patients, experiencing respiratory distress at the end of life.

Method

Iowa Model Revised

Results

Respiratory distress observation scale implemented:

- There was a 60% adoption rate of the respiratory distress observation scale.
- A 27% point increase (66% preprogram and 93% post program) in nursing confidence to assess the degree of respiratory distress.
- 93% felt they now have resources available
- 93% found the tool valuable for palliative care

Implication for Practice

Nurses now have a concrete tool to assess for respiratory distress in palliative care patients unable to report it.

Patients may now receive consistent, quality assessments and care for their respiratory distress at end of life relieving suffering.

Nurses may feel less distress and more confident caring for this patient population.

Future integration into EPIC, training to each ISS division unit and incorporation into onboarding divisional classes will ensure each nurse caring for this population has tools and resources to confidently care for these patients.



ANNETTE STEWART

MSN, BSN, RN

ICU Nurses Utilizing the Stress Response Cycle to Mitigate Burnout and Stress

Purpose

To adopt the stress response cycle for self-management of stress and burnout.

Method

Iowa Model Revised

Results

An improved workplace culture of wellbeing was achieved.

- Preprogram score of 26.9 (n=28) using the Ohio State Wellness Culture and Environmental Support Survey (WC&ESS) and post program score of 33.7 (n=22).
- T-test showed a significant change in the wellness culture pre and post program implementation ($p < 0.003$).
- 25.4 % reported an improvement in mental health
- Less than 2% nurse turnover during project period.

Implication for Practice

Adoption of the stress response cycle for self-management of stress and burnout was received positively based on perceived need to manage burnout and stress.

Leaders must be intentional with EBP interventions to manage stress and burnout.

A culture of hope and fewer reports of depression is possible with unit level support and interventions.

DOCTOR OF NURSING PRACTICE PROJECTS

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GRACE ABNEY

DNP, RN

PEDIATRIC NURSE PRACTITIONER-ACUTE CARE (C)

Implementation of a Discharge Guideline for Pediatric Oncology Patients with Fever and Neutropenia

Background

Fever due to neutropenia (FN) is the number one reason for admission in pediatric patients being treated for cancer nationwide. It represents the most common and potentially, most lethal complication of chemotherapy. Currently, there is no protocol for pediatric FN discharge on the pediatric oncology floor. Instead, the plan of care such as how long the patient is on antibiotics, and when they can discharge vary from provider to provider. The purpose of this evidence-based quality improvement project is to implement changes by creating a discharge guideline based on research findings that will define discharge criterion for all oncology patients who have

recently received chemotherapy and are then admitted within ten days after treatment and are neutropenic.

Methods

The process began with a literature review of current research on discharge criteria for pediatric oncology patients. A defined discharge criterion of an ANC >200 and significantly rising APC for two consecutive days was reached based on research and the approval of the director of pediatric oncology at SFCH.

Results

100% of Nurse Practitioners (NPs) verbalized satisfaction with the FN discharge guideline. The FN discharge guideline became the

standard of care on the SFCH pediatric oncology unit. Readmission rates decreased by 41.6%.

Implication for Practice

The defined discharge criterion of an ANC >200 and significantly rising APC for two consecutive days has become the standard of care in the SFCH Pediatric Oncology Unit at the University of Iowa. Maintaining a consistent guideline for FN discharge has increased provider compliance and satisfaction, decreased readmission rates and created a set protocol for discharge of pediatric oncology patients admitted for FN in the presence of a central line.



KENDALLYN BLAY RECKER

DNP, BSN, RN, CCRN
ADULT GERIATRIC-ACUTE CARE
NURSE PRACTITIONER (C)

Early Mobility in the Medical Intensive Care Unit

Background

Immobility in medical intensive care units (MICUs) nationwide has led to innumerable detrimental effects in mechanically ventilated patients, including impaired neuromuscular function, musculoskeletal deconditioning, cognitive impairment, psychological disabilities, and delayed ventilator and ICU liberation. Initiating an early mobility protocol creates a path to well-rounded, evidence-based patient care which results in fewer detrimental effects of critical illness and immobility in mechanically ventilated patients. The aim of this quality improvement project was to address the profound repercussions of immobility in mechanically ventilated patients in the MICU by implementing an early mobility protocol. Introducing a safety screening algorithm for mechanically ventilated patients will promote an increase in the number of patients who are screened and participate in safe mobilization.

Providing education on early mobility will contribute to shifting a culture of immobility to one of mobility.

Methods

During this quality improvement project, simple random sampling was utilized to collect pre- and post-implementation data on mechanically ventilated patients regarding their safety screening and mobility status while in the MICU. A pre- and post-implementation survey was distributed to nurses (RNs) who worked in the MICU to determine how they perceived early mobility in mechanically ventilated patients.

Results

Pre-implementation, there was no RN safety screening algorithm, so patients were being screened for safety solely by physical therapists. Only 20% of mechanically ventilated patients were screened for

safe mobilization at that time. During implementation of the safety screening algorithm, 67% of mechanically ventilated patients were screened for safety by RNs. Before implementation of the early mobility protocol, zero mechanically ventilated patients received early mobility, which was defined as any mobility over the level of passive movement. During implementation of the early mobility protocol, 62% of the patients who deemed safe to participate in early mobility did so. Thirty percent of those patients slid to the cardiac chair, 50% of patients dangled, and 20% of patients stood at the bedside. The RN perceptions survey had a greater than 80% response rate pre- and post-project implementation. Perceptions toward early mobility shifted to more positive and RNs advocated for early mobility in their mechanically ventilated patients more often by involving the interdisciplinary team.

Implication for Practice

By implementing and sustaining an early mobility protocol in the ICU, the profound negative effects of immobility can be addressed. An evidence-based early mobility protocol can increase the number of patients who safely participate in early mobility while mechanically ventilated. By understanding MICU staff perceptions toward early mobility, barriers can be overcome, and an early mobility protocol can be sustainable.



BRIDGET BERNS

DNP, MBA, MSN, RN, CNOR
Health Systems–
Nursing Administration

Leadership Rounding using Motivational Language to mitigate a Staffing Shortage

Background

The perioperative department faced a 26% nursing turnover rate; combined with nursing shortages; retention was a priority. This evidence-based project's goal was to implement leadership rounding utilizing Motivational Language Theory (MLT). Results of this project revealed statistical significance post rounding, and clinical significance demonstrated staff appreciation of MLT practices.

Methods

This project involved educating leadership about MLT and how to successfully integrate direction-giving language, meaning-making language, and empathetic language into their communication practices. Armed with this knowledge, leadership was asked to implement rounding with their staff. The goal was quarterly rounding with either

individuals or small groups. Questions posed were straightforward: (a) what is working well for you? (b) what can I do to help make your job easier? and (c) is there anyone you would like to recognize? and (d) what rumors/concerns would you like addressed? During their rounding, leadership utilized MLT to help with coaching, mentoring, and providing information. Pre/Post results were examined using 2-sided t-tests for each of the three aspects of MLT.

There were no specific costs for this project. All education was provided during scheduled meetings, and rounding sessions took place during staff work hours. The indirect cost was time away from the patient to round with their leadership team. There was no financial funding for the project.

Results

The first aim was to educate nursing leadership about Motivating Language Theory during a regularly scheduled leadership meeting. At the conclusion of

the education, leadership was able to demonstrate understanding by providing examples of the three facets of MLT. A follow-up PowerPoint was sent out to reinforce education and educate those not in attendance. The components of MLT are also reviewed at bimonthly leadership meetings in the Children's OR and daily during the OR huddle with staff.

The second aim was the implementation of leadership utilizing MLT. A pre-post survey was administered to 100 staff members using "MLT New Version, Short Form" a 15-item survey. The pre-survey identified that there were opportunities for improvement in direction-giving and meaning-making. After rounding implementation, a post-survey was sent out mid-February. The comparative means were calculated for each of the three facets, direction giving ($p < .012$), empathetic language ($p < .002$) and meaning making ($p < .003$) where $p \leq .05$ is statistically significant. The data demonstrated improvement in each of the three facets through leadership education and rounding. In addition, the clinical significance was revealed through staff comments about increased transparency, understanding the unit goals and improvement in staff satisfaction.

Implication for Practice

The three facets of motivational language were improved with the implementation of this EBP project. These three concepts can help promote exceptional communication between staff and leadership. A rounding program was successfully implemented in the Children's OR. With sustained practice, leadership rounding will support staff engagement with a goal of increasing retention. Leadership may not be able to control the monetary incentives, workloads or staffing shortages, but they can control how they motivate and support current employees.

HANNA CHANG BIN

DNP, RN, APRN, PNP-PC
POST-MASTERS DNP



Screening for Food Insecurity in Children by Utilizing Hunger Vital Signs

Background

Food insecurity (FI) is defined as a lack of consistent access to enough food, and it refers to a lack of available financial resources for food at the household level. In 2019, 35.2 million people including 10.7 million children lived in households experiencing FI and had limited access to adequate food due to lack of money and other resources. These numbers have rapidly increased since the COVID-19 pandemic began with an estimated 1 in 4 children experiencing FI in 2020. This inadequate nutritional status during childhood has a significant impact on children's growth and development, which could lead to poor overall health, hospitalizations, developmental risk, and behavior problems.

Methods

The first objective of this evidence-based practice change study was focused on implementing the FI screening tool, Hunger Vital Signs (HVS), into existing registration, intake procedures, and workflow at the Routine Well-Child Checks (RWC). Secondly, the study assessed and measured staff and providers' knowledge, attitudes, and behaviors about HVS by using the electronic questionnaire service system Qualtrics before/after the HVS implementation. Lastly, the study connected families to Federal and State Nutrition Programs and/or Emergency Food Resources.

Implication for Practice

Screening food insecurity in children by utilizing the Hunger Vital Signs in primary care practice has a potential to reduce childhood obesity and improve overall health in pediatric population.



MIKAYLA S. BRUCE

DNP, RN
FAMILY NURSE PRACTITIONER (C)

Screening for ACEs in a Primary Care Medication for Opioid Use Disorder Programs

Background

Adverse childhood events have been linked to poor health outcomes and may be inversely related to success in Medication for Opioid Use Disorder programs. However, they are infrequently screened for in primary practice. A study conducted by the Centers for Disease Control, involving 144,000 adults, found that approximately 61% of patients had at least 1 ACE, with 6% having 4 or more (National Conference of State Legislatures, 2022).

Methods

This purpose of this quality improvement project was to implement a comprehensive process to screen patients for ACE who were enrolled in MOUD therapy, while providing educational

support to staff within the rural clinic. Adult patients enrolled in a rural primary care MOUD program from August–December 2021 were given a 10-question ACE questionnaire at their first patient-provider meeting. To address staff education needs, a pre-post educational survey was distributed via an anonymous online survey tool.

Results

In total, nine patients completed the ACE screening questionnaire. 90% of patients screened had at least 1 or more ACEs (n=8). A total of 45% of the patients screened had 4+ ACE (n=4) and 22% had 9+ ACE (n=2). With a tailored educational handout, of the clinic staff who completed the pre and post education surveys,

90% expressed increased awareness between rising ACE scores and poor patient outcomes.

Implication for Practice

Implementation of screening and providing early referrals may help identify patients with a higher risk of poor outcomes. Further data collection is necessary to determine whether patients who score or 4 or greater are at a higher risk for relapse and overall lifetime overdose rate.



BRITTANY BURNES

DNP, BSN, RN
NURSE ANESTHESIA (C)

Improving anesthesia provider compliance with perioperative infection control best practices

Purpose

Surgical site infections are the second most frequent healthcare-associated infection (HAI) and the most common adverse event to happen to a surgical patient up to seven percent of surgical patients will develop one or more infections¹. Through others' research it has been determined that anesthesia workstations and materials used by anesthetists become contaminated with multiple pathogens from the anesthesia provider, the current patient, or the previous patient. The problem to be addressed is anesthesia provider noncompliance to current infection control guidelines in the Main OR (MOR) at University of Iowa Hospitals and Clinics (UIHC).

Methods

The proposed change is to provide awareness, education, demonstration, and simulation scenarios to anesthesia providers about proper compliance to established infection control policies and the importance of preventing HAIs. The first objective will be to create a UIHC anesthesia department specific infection control policy. The second objective is increased compliance to infection control guidelines within UIHC MOR.

Results

The first objective of creating a policy for anesthesia infection control specific for the UIHC department of anesthesia is in process. The second objective of increased use and adherence

to infection control guidelines has been partially collected. Compliance with passive alcohol disinfection caps increased from 18% of providers using to 87% of providers using.

Implication for Practice

Overall, this project showed success despite encountering many barriers throughout implementation. This drastic increase shows how increasing awareness and providing education can increase compliance in infection prevention guidelines among anesthesia providers. This project shows it can have great impact with approval and posting of the department wide policy and continued education about the proper use of infection prevention guidelines.



ANDREA CHILDS

DNP, BSN, RN
PEDIATRIC NURSE PRACTITIONER-
PRIMARY CARE (C)

Electronic Health Record Reminder for the Pediatric Asthma Population

Purpose

Adherence to medication prescriptions is a barrier among many people with chronic diseases, including the asthma population. The purpose is to improve medication adherence among the adolescent asthma population within a pediatric primary care setting.

Methods

Used the Iowa Model to implement an evidence-based practice tool to improve medication adherence. Implemented a daily MyChart

messaging reminder program integrated into Epic to remind the adolescent asthma population to take their medications.

Results

Due to low questionnaire response rates, unable to determine if medication adherence or daily asthma symptoms improved. Healthcare professionals' attitudes improved after implementing the daily MyChart reminder program.

Implication for Practice

Unable to determine if sending daily MyChart message reminders is as effective as it could be due to low questionnaire response rates. Sending daily MyChart message reminders improved healthcare professionals' attitudes toward medication adherence among the adolescent asthma population.

CIARA DEMMINGS

DNP, BSN, RN
FAMILY NURSE PRACTITIONER (C)



Implementing Bariatric Surgery Nutrient Follow Up in Primary Care

Background

Obesity is a costly and widely prevalent disease in the United States.^{1,3} Bariatric surgery is one example of an intervention for obesity management. However, a deficit in provider knowledge leads to poor outcomes and negative patient experiences in the bariatric surgery population.^{6,8} Primary care providers (PCPs) are positioned to bridge this gap in follow-up care improving postoperative bariatric surgery management.

Methods

The project was conducted in two primary care clinics in an academic medical center. A vitamin deficiency clinical practice guideline and screening order set was implemented after provider education. The three outcome objectives for this project included developing a clinical practice guideline, increasing provider confidence, and improving postoperative bariatric surgery care received in primary care.

Results

Provider confidence and knowledge regarding vitamin deficiency in primary care increased overall. Screening for vitamin deficiencies by PCPs providers increased as well.

Implication for Practice

Integration of specialty care into primary care setting is feasible, enhances provider collaboration, and improves care patients receive.

MICHAEL DEMOSS

DNP, BSN, RN
NURSE ANESTHESIA (C)

Creating a Massive Transfusion Protocol Workflow for the Adult ICUs at UIHC

Background

Massive hemorrhage is a serious, but rare complication of surgical intervention, trauma, and various disease processes. Coordination during this emergency is imperative to providing timely and effective care to patients with acute hemorrhage. The University of Iowa Hospitals and Clinics (UIHC) lacks standardization of response to acute massive hemorrhage. Additionally, the blood bank is not proximal to areas with high incidence of massive transfusion protocol (MTP) activation. There is a lack of educational resources related to MTP.

Methods

A pre-implementation survey was administered to identify current practice and associated deficiencies. Collaborated with nursing practice leaders and blood bank staff to construct a standardized MTP workflow. Created educational resources to be utilized by ICU nursing staff. Creation of a MTP workflow was completed with the guidance of nursing practice leaders and blood bank staff. Education was provided to nursing staff via in-person education sessions. Incorporation of newly created workflow into online compliance and nursing education website.

Results

There was a global increase in staff understanding of MTP and resources including increases in the number of nurses understanding role delegation, emergency fridge contents, locating emergency blood, and improved comfort ratings with MTP.

Implication for Practice

Knowledge deficits among staff nurses is common among ICU staff nurses at UIHC for a variety of factors. An interprofessional team of staff nurses, surgeons, and intensivists is needed to conduct an effective and efficient MTP event.

OBEHI EHIKHAMENOR

DNP, BSN, RN
FAMILY NURSE PRACTITIONER (C)



Utilizing a Depression Screening Tool in an Acute Care Setting

Background

Major depression disorder (MDD) in an acute care setting is about 22% compared to 2.7-11.63% in the general population. 1 in 5 patients seen in this setting is suffering from depression. The purpose is to utilize the Patient Health Questionnaire (PHQ) to screen for depression in acute care and facilitate primary care provider (PCP) follow up.

Methods

This project is granted a Human Subject research by the project site's IRB. Project setting is at an urgent care facility. Process involved policy development, staff education, PHQ-2/PHQ-9

administered to patients 12 and older, referral to primary care provider (PCP)/mental health referral, identify number of screenings, survey collection and data analysis.

Results

Policy is developed and accepted by leadership. Staff reports increased knowledge on PHQ screenings. On average, 27% of patients were screened with PHQ-2. The site is unable to implement an electronic referral process. Verbal recommendations by staff and providers to follow up for management.

Implication for Practice

There is a lack of electronic referral for behavioral concerns. Challenges include COVID-19, lack of staffing, and time restraints. Project highlighted areas that are lacking in identifying mental health problems such as staff's drive to complete screening in acute care settings and patient motivation to seek help.



REBECCA ELLENS

DNP, BSN, RN
PEDIATRIC NURSE PRACTITIONER-
PRIMARY CARE (C)

Improving Accessibility to Health Care Resources for Children in Storm Lake Community School District

Purpose

Social determinants of health impact accessibility to health care. In Storm Lake, Iowa, there are numerous barriers in health care accessibility for the pediatric population. Of greatest impact are insurance status, inability to coordinate health care services, and transportation insecurity. This project is a health promotion program designed to improve accessibility for children in Storm Lake Community School District.

Methods

This project used the PRECEDE-PROCEED model for development of a community-based health promotion program. In the summer of 2021, the school district recruited and hired four

individuals to serve as Facilitators of Student and Family Services (FSFS). To improve accessibility to health care, the FSFS are tasked with enrolling children in available insurance programs and performing care coordination for health care services. The school district is also developing a volunteer-based transportation program which the FSFS can utilize to coordinate transportation to appointments. Deidentified aggregate data was collected between 1/17/2022 and 3/11/2022 to learn how many children identified as uninsured were successfully enrolled in an available insurance program, and how many children were successfully scheduled for necessary health care appointments.

Results

Between 1/17/2022 and 3/11/2022, 14 of 24 children (58.3%) were enrolled in health insurance by a FSFS; and 46 of 48 appointments (95.83%) were successfully scheduled by a FSFS. The transportation program is still under development.

Implication for Practice

Care coordination of health care services performed by school district employees improves accessibility to health care resources for the pediatric population.



STEPHANIE FARDAL

DNP, BSN, RN
FAMILY NURSE PRACTITIONER (C)

Utilization of Peanut Ball and Maternal Positioning During Labor to Decrease Cesarean Section Rate

Purpose

Many factors, such as labor process, interventions, and route of delivery impact a woman's labor and outcome during delivery. There is a high percentage of unplanned cesarean deliveries for various reasons, all of which increase the risk for mother and infant. Frequent position changes and use of the peanut ball are both interventions that improve a woman's time in labor, pushing efforts, and route of delivery. The purpose of this project was to decrease the cesarean section rate on the MercyOne Des Moines labor and delivery unit. Implementation of this evidence-based practice change benefited the labor, outcomes, and experiences of the patient, her family, and the infant.

Methods

Objectives of the project were to advance staff education, skills, and use of interventions to improve labor durations, pushing efforts, and delivery. Education provided, resources developed, and assessment of project success was completed by project lead. Delivery statistics and implemented practice changes were assessed for six months in total and reviewed with staff.

Results

The key point of this project was a decrease in cesarean section rate on the unit. Although rates varied month to month, those following project implementation were lower than pre-project rates and closer in range to unit goal. There was

a significant decrease in amount of cesarean sections for non-progressive labor. Overall, implementation and continuation of new skills and knowledges were a success.

Implication for Practice

The project changed nursing practice on the unit through incorporating and implementing evidence-based knowledge and skills into patient care. A strong nursing desire to be an advocate for best outcomes and prevent cesarean sections was key and a driving source for results. With continued practice change, there is possibility for further decrease in cesarean section rates. There is opportunity for continued development of the project.

DANIELLE M. FITCH

DNP, BSN, RN
PSYCH-MENTAL HEALTH NURSE PRACTITIONER (C)

Managing hypotension following spinal neuraxial anesthesia: Increasing nursing staff knowledge on the current standards of practice and methods of management

Background

Spinal and epidural anesthesia are the most frequently used techniques for analgesia in laboring and cesarean section patients; with the most frequent occurring side effect of these procedures being maternal hypotension. Maternal hypotension comes with risks not only to the mother such as nausea, vomiting, and loss of consciousness but also hypoxia and acidosis in the baby. Common management of hypotension includes IV ephedrine which rapidly crosses the placenta, lowering umbilical artery pH causing fetal acidosis increasing the risk for neonatal hypoglycemia and/or NICU admission. A routine practice for hypotension is acute hydration with crystalloid fluids prior

to the spinal or epidural procedure (pre-loading) but recent findings have found it may only reduce the incidence of hypotension, but it does not prevent it. Initiating fluid infusion during the procedures (co-loading) has shown a clinical difference in reducing the incidence of hypotension but neither practice of fluid loading has shown a statistical difference. Current practice by anesthesiologists at Methodist West and Iowa Methodist Medical Center Hospitals, both in the Des Moines, Iowa area, frequently request nursing staff to administer 1-2L fluid boluses prior to anesthesia arrival with the intent to decrease the likelihood of post-epidural hypotension. Current management of hypotension at these hospitals

is also the use of ephedrine, which nursing staff has recently reported a significant increase in its use.

Methods

A medication report conducted through pharmacy at 2 sister hospitals utilizing the same anesthesiology group found an increased use of ephedrine for post-epidural hypotension. There was a review and survey of attitudes on current practice guidelines and interventions, as well as the level of confidence in hypotension management and fetal bradycardia of the perinatal nursing staff, located at both hospitals.

KATIE FOLTZ

DNP, BSN, RN
PSYCH-MENTAL HEALTH NURSE
PRACTITIONER (C)

Risk of Post-Traumatic Stress Disorder in Trauma Patients

Background

Post-Traumatic Stress Disorder (PTSD) is a problem that is largely unaddressed in trauma centers and emergency departments. Unidentified PTSD can lead to chronic PTSD and poor quality of life post-trauma. The purpose of this study was to use evidence-based practice guidelines to implement a screening tool for PTSD in adult patients admitted to an acute care trauma setting, raise awareness for risk of trauma in providers and identify resources for support of trauma victims at risk for PTSD.

Methods

Trauma patients at a Regional Medical Center were approached in August 2021. They completed the Primary Care - Post-Traumatic Stress Disorder 5 (PC-PTSD 5) screening tool. Results were recorded, and those that scored a three or above were given a PTSD supportive resource packet. The staff of inpatient trauma floors were educated on the project, need for PTSD screening in trauma patients, and the symptoms of the disorder.

Results

Forty-seven patients completed the PC-PTSD 5; 25% scored three or higher indicating a risk of PTSD. All patients who achieved a three or

above were given a PTSD resource packet. Trauma floor staff report increased recognition of the importance of PTSD screening in trauma patients and advanced knowledge of symptoms of the disorder.

Implication for Practice

Early screening for risk of PTSD in trauma victims is beneficial in identifying and providing early interventions to decrease symptoms and further mental and physical health complications. Short screening tools help identify at-risk victims.



EMILY FORD

DNP, BSN, RN
NURSE ANESTHESIA (C)

Enhancing the Use of Regional Anesthesia at the Stead Family Children's Hospital

Purpose

Inadequate perioperative pain control is a considerable problem among pediatric urology patients undergoing surgery at the University of Iowa Stead Family Children's Hospital (SFCH). Inadequately treated pain can lead to immediate and long-term consequences. The purpose of this project was to enhance pain control in pediatric urology patients through the use of spinal anesthesia.

Methods

A process was designed and implemented for spinal anesthesia placement in pediatric urology patients at the SFCH. The first objective of this project aimed to demonstrate 10% lower average pain scores among spinal anesthesia patients

compared to general anesthesia or general with a caudal. The second objective was to double the number of spinal anesthetics performed. The third objective was to demonstrate a decrease in PACU time among spinal anesthesia patients.

Results

All project objectives were met. Spinal anesthesia pain scores were 70% and 55% lower respectively among spinal anesthesia patients compared to general anesthesia and general with a caudal. Spinal anesthesia use increased 11.5 times compared to baseline values. Spinal anesthesia PACU time was 34 minutes and 18.8 minutes lower respectively compared to general anesthesia and general with a caudal.

Implication for Practice

Increased use of spinal anesthesia at the SFCH has shown to reduce PACU pain scores and decrease PACU length of stay. Implementation of this project required multidisciplinary involvement and feedback in order to be successful.

ALEX GITAU

DNP, BSN, RN
NURSE ANESTHESIA (C)

Improving Difficult Airway Management in the Intensive Care Unit

Purpose and Methods

Patients undergoing emergent airway securement and management in the intensive care unit (ICU) at Unity Point Iowa Lutheran Hospital (ILH) are at risk of procedure-related morbidity and mortality. Advance practice registered nurses (APRNs), nurse practitioners (NPs) at the ILH ICU are expected to secure and manage difficult airways, using various equipment and established policies. The purpose of the project was to increase knowledge and skills of APRNs regarding airway management, through the use of life-like simulation sessions and established evidence-

based algorithms in the Stanford Emergency Manuals (SEM). The Iowa model was selected for implementation of the project and analysis of data, using survey scores.

Results

The project demonstrated increased knowledge, competence, and confidence of the APRNs' management of difficult airways.

Implication for Practice

Considering the push toward full authority practice by APRNs to the maximum extent of education and licensure, it is imperative

APRNs at ILH succeed in the expanded role of securing and managing airways in the ICU. Such roles can be sustained and improved through consistent simulation of lifelike difficult airway scenarios, using evidence-based algorithms.



JESSICA GRANT

DNP, BSN, RN
ADULT GERIATRIC-ACUTE CARE
NURSE PRACTITIONER (C)

Implementing a Nurse-led Spontaneous Awakening Trial Protocol

Purpose

Institutions without a standardized protocol for daily awakening trials for mechanically ventilated patients have prolonged lengths of stay. The purpose is to reduce to the length of stays for Mechanical Ventilation, Intensive Care Unit, and Hospital days while increasing the confidence and compliance for bedside staff.

Methods

Developed a nurse-led spontaneous awakening trial protocol for a 20-bed ICU. Patients excluded cardiothoracic surgery and any under 18. Pre-implementation data was collected on 30 patients prior. Data on the length of stays for Mechanical Ventilation, Intensive Care Unit, and Hospital day were collected through chart audits and bedside

forms. Pre-implementation survey of 65 nurses showed status on confidence and compliance. Pre-data was compared to the 48 nurse's post-implementation survey. Data was analyzed by using averages of stays recorded on a Excel spreadsheet and statistical significance was used by two-tail t-test.

Results

Ventilator LOS decreased by 7% ($p = 0.828$), ICU LOS decreased by 5% ($p = 0.8992$), and the hospital LOS decreased by 18% ($p = 0.408$). The 5-question pre-implementation survey was completed by 79% of the staff. About 52% of staff completed the post implementation survey. There was a 19% increase in bedside confidence in performing SAT after the protocol was started. There was

also another 19% increase from staff in the belief that the protocol was applicable to their practice. A 6% increase from the staff that they were confident in extubating patients by 10am rounds with the protocol and a 9% increase in the confidence in collaborating with RT on SBT. There was no change from staff if they believed they made any significant contribution to when or how a patient is extubated.

Implication for Practice

This quality improvement project showed positive outcomes with an increase in staff compliance and confidence. The total length of stays for mechanical ventilation, intensive care unit, and hospital days also decreased.

EMILY GRIFFIN

DNP, BSN, ARNP, FNP-BC
POST-MASTERS DNP



Decreasing Stress in Undergraduate Nursing Students: Innovations of a Cognitive Behavioral Course

Purpose

Stress and anxiety affect college students' well-being and performance. This article describes how an innovative cognitive behavioral course was taught to undergraduate nursing students to reduce stress and increase coping strategies.

Methods

A team of faculty and staff at a University College of Nursing developed the course based on evidence-based cognitive behavioral strategies. The course obtained the required committee and State Board of Nursing approvals. The Perceived Stress Scale (PSS) and Brief Resiliency Scale (BRS) were utilized to measure impact before and immediately after implementation of the course.

Results

The PSS and BRS were collected and summarized by faculty. Students completing the cognitive behavioral course demonstrated a decrease in perceived stress and an increase in the ability to recover from stress.

Implication for Practice

An evidence-based cognitive behavioral course can be used as an early intervention for improving coping skills, managing stress and ability to recover from stress in undergraduate nursing students.



GERARDO GUERRERO-SEGURA

DNP, BSN, RN
PSYCH-MENTAL HEALTH
NURSE PRACTITIONER (C)

Increasing the Use and Documentation of Interpreter Services in an Adult Inpatient Psychiatry Unit

Purpose

Communication barriers impede quality mental healthcare. Psychiatric patients with limited English proficiency (LEP) are at risk for treatment inequity and adverse outcomes. This evidence-based practice project aimed to increase the use and documentation of appropriate and effective interpreter services in an adult inpatient psychiatry unit to reduce communication disparities with patients who have LEP.

Methods

An online educational module was provided to 36 nursing staff and pre- and post-intervention surveys were analyzed. Retrospective and postintervention electronic medical records

(EMRs) of patients with a non-English preferred language admitted to the unit were also reviewed for the nursing staff's documentation of interpreter service use.

Results

An overall change in the nursing staff's average knowledge of interpreter services and best practices was not statistically significant. A change in the staff's self-report of confidence in providing effective communication to patients with LEP was not statistically significant ($p=0.496$). The average number of daily interpreter service use documentations increased; however, the staff's documentation of interpreter service use remains inadequate.

Implication for Practice

The interpreter services are infrequently used and the documentation of the interpreter service use is inadequate in the adult inpatient neuropsychiatry unit. The 2JPW nursing staff must continue to increase the use and documentation of appropriate and effective interpreter services for patients with limited English proficiency. Effective communication increases the quality and equity of mental healthcare and minimizes adverse outcomes.



MALLORY HEATH MCKAY

DNP, BSN, RN
FAMILY NURSE PRACTITIONER (C)

COVID-19 in the Migrant Farmworker Population

Purpose

The disruptions caused by COVID-19 to the economy and public health have been critical, including the food supply chain and those who maintain it. Many of these essential workers are migrant farmworkers. Migrant farmworkers are a population vulnerable to COVID-19. This quality improvement project focused on the impact of COVID-19 prevention and education of the medical staff working in a non-profit organization specializing in the care of migrant farmworkers.

Methods

Staff was trained through a presentation regarding COVID-19 prevention and procedures specific to their organization. An infectious disease policy was created with specific procedures related to COVID-19 and implemented through staff training.

Results

The staff was surveyed regarding the efficacy of the presentation. Staff reported confidence in instructing others on COVID and viewed the education as effective. The infectious disease

policy was implemented in March and April 2022, and staff gave feedback for evaluation. Staff reported satisfaction with the policy.

Implication for Practice

This project aimed to improve the public health of migrant farmworkers by working with those who provide much of their access to healthcare. Education of the healthcare personnel working with migrant farmworkers increases the migrant farmworkers' awareness of COVID-19 and how to minimize its spread.

ALEX HUGI

DNP, BSN, RN
NURSE ANESTHESIA (C)

Implementation of a Cognitive Aid for Perioperative Emergencies

simulation sessions to evaluate awareness, familiarity, confidence, willingness to use the SEM, and to measure participation in the important role of manual reader.

Results

Seventy-five percent of perioperative staff completed simulation. Awareness and appropriate use increased substantially, staff agreed the SEM would be beneficial for pre-crisis review, during an actual emergency, and for debriefing or for a near miss. One hundred percent of staff surveyed, stated they would approve of having the SEM in their perioperative area.

Implication for Practice

The SEM should be available in each operative room. Sustained practice with various emergency situations will increase cultural acceptance and use during real critical situations. Simulation training improves the implementation due to the controlled environment and can lead to future clinical use.

and appropriate use of the SEM, integrate the SEM into practice through simulation training, and increase staff comfort level using SEM by participating as the reader.

Methods

Malignant hyperthermia simulations were held with perioperative staff. Participants included Certified Registered Nurse Anesthetists (CRNA), operating room nurses, and surgical technologists. The simulations included awareness, appropriate use, familiarization of SEM format, and emergencies contained within. Simulation included a malignant hyperthermia situation. A retrospective pre- and post-training survey was completed by all participants after

Background

Cognitive aids such as checklists have been used in other industries for decades to improve safety, while there has been marginal adoption in healthcare. Due to the high stress of the perioperative area the Stanford Emergency Manual (SEM) was developed for perioperative emergency and critical situations. Stressful situations are known to decrease memory, recall, and decision-making ability regardless of experience and expertise. Cognitive aids can help manage critical events and prevent missed steps. The purpose is to decrease cognitive overload during emergencies through implementation of a cognitive aid, the Stanford Emergency Manual, during crisis simulation. The objectives were to increase awareness

BRETT HUTTON

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FAMILY NURSE PRACTITIONER (C)



Fall Prevention in Long-Term Care

Purpose

Falls amongst older adults in long term care settings are a significant problem. There are numerous reasons falls occur at a greater rate in the long-term care setting than that of individuals who are community dwelling. Some reasons include polypharmacy, deconditioning, chronic medical conditions, and balance issues. Falls cause undue distress and injury to these individuals, and thus it is important to find ways to prevent these falls from occurring.

Methods

A review of literature was conducted. Education was provided to the nursing staff of a long-term care facility regarding fall prevention.

Nursing confidence regarding fall prevention was measured by a pre and post survey. An exercise program consisted of seated Tai Chi was implemented twice weekly with the residents via the activities department.

Results

Nursing staff expressed increased confidence of fall prevention after education was provided to them regarding fall prevention in an in-service form. Fall rates were noted for five months prior to implementation, and during the five months of implementation. There was a 2.4% reduction in falls post implementation of education and Tai Chi.

Implication for Practice

The 2.4% reduction in fall rate was much lower than the goal of 10%. A longer data collection period may be necessary to see a further downward trend in the fall rate.

JESSICA JASPER

DNP, BSN, RN
NURSE ANESTHESIA (C)

Code Stroke—Improving Anesthesia Efficiency: A Quality Improvement Project

Background

The purpose of this quality improvement project was to implement strategies to improve anesthesia efficiency during a code stroke thrombectomy. The objectives were to improve anesthesia clinicians' workflow and delineate the responsibilities for all professions involved in the code stroke process.

Methods

A pre-post comparative design was used in this quality improvement project. The project took place at The University of Iowa Hospitals and Clinics (UIHC). Participants were patients diagnosed with an ischemic stroke and

undergoing a thrombectomy for reperfusion. Interventions included a Code Stroke Activation Algorithm, Code Stroke Medication Kit, and Code Stroke Simulations for Student Registered Nurse Anesthetists (SRNAs). Measurements: Code Stroke Medication Kit, time to treatment, and pre- and post- simulation knowledge scores were assessed. Simple descriptive statistics were used to describe the overall results.

Results

Feedback suggests the implemented interventions improved anesthesia clinicians' workflow.

Implication for Practice

Improving anesthesia clinicians' workflow may minimize delays in patient care and assist in ensuring timely delivery of reperfusion interventions for patients diagnosed with an ischemic stroke.

KYLIE J. JOHNSON

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Legislative Proposal to Acquire Medicaid Funding for Adverse Childhood Experiences (ACEs) Screening in Primary Healthcare

Background

Adverse Childhood Experiences (ACEs) are events experienced, before the age of 18, that affect one's biopsychosocial health across the lifespan. Iowa's Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) program is designed to meet the preventative care and treatment needs of children and adolescents, however, Medicaid does not mandate ACE screening within this program. ACEs are not being recognized as a component of physical, mental, and emotional health early in life, nor are they recognized as catalysts for chronic physical and mental health conditions.

Purpose

The purpose of this project is to amend Iowa's Medicaid policy to mandate provider education on the definition and screening practices for Adverse Childhood Experiences (ACEs) in order to receive provider reimbursement for conducting adverse childhood experiences screenings in primary care settings. By accomplishing this change, it will achieve identifying Iowans at risk for adverse health outcomes correlated with adverse childhood experience scores.

Implication for Practice

By identifying ACE scores as a contributing factor in health outcomes, primary care providers can then offer tailored healthcare services to their patient that holistically address their health problems across the lifespan.

MARIAH JOHNSON

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PSYCH-MENTAL HEALTH NURSE
PRACTITIONER (C)



Screening, Brief Intervention, and Referral to Treatment in Intensive Care

Purpose

The purpose of this project was to trial SBIRT (Screening, Brief Intervention, and Referral to Treatment) in an intensive care setting to expand the usefulness of this well-developed evidence-based program.

Methods

The Screening, Brief Intervention, and Referral to Treatment (SBIRT) tool is “an approach to the delivery of early intervention and treatment to people with substance use disorders and those at risk of developing these disorders.” This program

was trialed in a surgical and neuroscience intensive care unit for a three-month period. This project consisted of educating the providers on the program and gauging their knowledge and confidence levels before and after.

Results

100% (n=6) providers reported an increase in both knowledge and confidence regarding SBIRT after education. The second measure of having each patient in the pilot area fill out an AUDIT screening tool was unmet with a 13% compliance. Lastly, 33% of patients with a positive AUDIT

scores in the Level III-harmful or Level IV-Severe were referred for chemical dependency treatment.

Implication for Practice

While SBIRT has been proven to succeed in primary care, emergency department and trauma center settings, further studies are needed to conclude if an intensive care unit would be an appropriate setting to continue in.



ROSHANI KANDEL

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A Quality Improvement Project for the Promotion of Skin Integrity in Long-term Care Residents

Purpose

This is a quality improvement project designed to improve the knowledge and practice of nursing staff, improve communication among the multi-disciplinary team (MDTs), and reduce the incidence of skin and soft tissue infections and injuries (SSTIs) among the long-term care residents.

Methods

A pre and post survey was conducted among Certified Nursing Assistants (CNAs) and nurses to assess their knowledge and practice on skincare assessment, using bar graph with Likert scale score 0-2. The communication between the members of MDTs with a nurse's participation

was assessed during weekly skin meeting. The communication between the nurses and providers was assessed by counting the number of sent faxes. Electronic health records were collected retrospectively to create the wound protocol and analyze the incidence of skin infections.

Results

The post-intervention survey of CNAs showed that 80% of CNAs gained confidence in identifying the skin lesions and 75% of the nurses gained confident on differentiating, staging, and recommending the treatment for wounds. The nurse participated in weekly skin meetings shared strategies in the management of weight

and pressure ulcers. There was 50% increase in number of skincare recommendations faxes sent to the providers. There was average of 25% reduction in the incidence of some skin cases after implementation of wound protocol.

Implication for Practice

This project suggests that the development of wound protocol helps reduce SSTIs and improve the communication between MDTs and knowledge and practice among nursing staff.

KENDALL KIKUTS SOLINGER

DNP, BSN, RN, BMTCN
FAMILY NURSE PRACTITIONER (C)

P-CaRES in Malignant Hematology: Screening for Unmet Palliative Needs to Increase Patient Access to Supportive Care Nurse Consults

Background

Palliative care (PC) can offer symptom management for malignant hematology (MH) patients. PC screenings are appropriate to provide to these patients but are rarely ordered. At the University of Iowa Hospitals and Clinics nurses may independently order a supportive care nurse consult, but many lack confidence to do so. Screening tools like the Palliative Care and Rapid Emergency Screening (P-CaRES) tool may help identify unmet palliative needs and aid in decision making. The purpose of this project was to assist nurses in identifying patients with unmet palliative needs, increase patient access to supportive care services, and increase nurse confidence in writing supportive care nurse consults.

Methods

Nurses on a hematology oncology unit were surveyed on their confidence in ordering supportive care nurse consults. They were then taught to use P-CaRES and order a consult. Screening tools were collected for data extraction. Post-implementation, nurses were surveyed to assess for change in confidence.

Results

Nurses with access to P-CaRES were able to identify MH patients with unmet palliative needs and placed supportive care consults for positive patients with clinical significance leading to an increase in patient access to supportive care services. Nurses reported a statistically significant increase in confidence.

Implication for Practice

This project found that the addition of the P-CaRES screening tool resulted in a profound increase in nurse confidence. The increase in nurse confidence was correlated with a clinically significant number of patients who received supportive care nurse consults thereby implying that addition of a screening tool may positively impact patient access to supportive care nursing services.



JANET KINZIE

DNP, MS, CRNA
POST-MASTERS DNP

Improved Screening for Anesthesia Services for Gastroenterology Procedures in the Veteran Population

Purpose

This quality improvement project was to improve screening of the gastroenterology (GI) veterans for anesthesia services. The goal was to decrease the number of unplanned anesthetic rescues and have anesthesia providers involved with these complex cases from the beginning by providing monitored anesthesia care (MAC). Improved screening of the scheduled GI patients led to identifying high-risk veterans and, if indicated, would initiate a nurse-generated consult.

Methods

Pre-implementation screening (Jan 2021 through July 2021) had 1,018 electronic medical records

(EMR) reviewed for unplanned anesthetic (UPA) attendance. Post-implementation (Aug 2021 through Dec 2021) had 692 EMRs reviewed for UPA and monitored the improved screening during the pre-procedural phone call the GI nurses made to each planned outpatient GI case. Finally, a comparison of percentages and numbers of unplanned MAC pre-and post-intervention.

Results

The change in practice showed an indirect correlation. As the percentage of screened GI patients and a nurse-generated MAC review increased, the number of unplanned anesthetics (UPA) decreased. Before the improved screening,

the GI cases as unplanned MAC averaged 4.7%. Post-screening, the average has been reduced to 2.9%.

Implication for Practice

Improved screening has provided a simple solution to identifying patients at high risk for sedation-related complications.

JOHN LABERNIK

DNP, BSN, RN
NURSE ANESTHESIA (C)



Improving Preoperative Blood Glucose Management

Purpose

Hyperglycemia (blood glucose >180 mg/dL) associated with diabetes is a common condition that predisposes surgical patients to adverse outcomes. In many rural hospitals, patients receive medical clearance history and physicals from primary care providers (PCPs) located at different facilities leading to variability in preoperative diabetes medication instruction practices.

The purpose of this quality improvement project was to distribute an evidence-based, preoperative diabetes medication management guideline to PCPs who medically clear our surgical patients and to provide education to our nursing staff.

Methods

The guideline was disseminated to 12 high patient volume clinics. Education and reference materials were provided to our preadmission nurses (RNs). Data collection included preoperative blood glucose levels, preadmission RN quiz scores, and preadmission RN surveys.

Results

Rates of optimal preoperative blood glucose levels (70-180 mg/dL) increased slightly from 80.6% to 83.9% in patients who were seen by providers exposed to the medication guideline. Preadmission RN knowledge about preoperative diabetes management vastly improved and was retained (baseline quiz score 23% versus 91% after education and 91% after 3 months).

Implication for Practice

Preadmission RN surveys revealed perceived increases in patient knowledge about their preoperative diabetes medication regimens. Further efforts to improve preoperative medication instructions and diabetes medication management should be pursued.



SAMANTHA LEE

DNP, MSN, ARNP, CPNP-AC
POST-MASTERS DNP

Implementation of a Diary to Decrease Family Stress in a Pediatric Intensive Care Unit

Purpose

Parents of children admitted to the Pediatric Intensive Care Unit (PICU) report significantly high levels of stress and anxiety when dealing with a critically ill child, uncertainty of their caregiver role, and complete disruption of their family. Does the implementation of an ICU diary into a PICU decrease the levels of stress and anxiety in the families of these children compared to not implementing a PICU diary?

Methods

Using evidence from 11 case reports, evidence-based practice articles, and studies, an ICU diary was developed. The ICU diary was implemented in September 2021 in a PICU. Multimodal

education included an example ICU diary binder, a recorded instructional video, and real-time support from the author, a nursing student, and intensive care unit nurses.

Results

An ICU diary was a new practice. Pre- and post-implementation data was collected regarding staff knowledge, attitudes, and behaviors. Post-implementation data was collected regarding family attitudes. Thirty-one ICU diaries were disseminated to PICU families with 63% of the parents perceiving a decrease in stress and anxiety.

Implication for Practice

This practice is now an established part of the PICU and has been integrated into the care delivered. Staff and families adapted quickly to using an ICU diary. This practice is a cost-effective, simple tool that may help families in other ICUs or other units with prolonged care.

KATHERINE LOWARY

DNP, BSN, BSHCA, RN
PSYCH-MENTAL HEALTH NURSE PRACTITIONER (C)



Mental Health Screening in the Community: Screening Adolescents for Depression in a Public School

Purpose

Treating adolescent depression is vital for success during adulthood. Because of this, experts recommend annual universal depression screening for adolescents. However, there are no recommendations on how to accomplish mass screenings to ensure those most at risk for depression are identified. Screening for depression in the student's daily setting, like school, could be a prime setting for screening on a widespread scale. This pilot project sought to create a framework for future mental health screening in schools.

Methods

During this evidence-based practice change project, minor students in grades seven through

twelve were offered standard depression screening through their school. The objectives were to screen 80% of eligible students, notify all parents of students who have a moderate or higher risk of depression, and inform the school administrators of the portion of the student population most at risk.

Results

The total participation rate for student depression screening was 3%, so the first objective was not met. Of the 300 eligible students, 31 received parental consent to participate and of those students, 10 completed the online depression screening survey. Of the surveyed students, 4 scored in the moderate or higher depression range. Parents for all 4

students were contacted to meet the second objective. Data from the depression surveys was analyzed to determine that females in the grades 10 – 12 were most at risk of depression, though the sample size may not properly represent the population. School administrators were notified of this conclusion and the potential bias to meet the third objective.

Implication for Practice

Schools may provide a prime setting for universal mental health screenings but establishing an effective program requires thoughtful planning. The primary participation barriers in this project were difficulties in obtaining active parental consent, lengthy informed consent documents, and not involving teachers in the process. While every school will have unique challenges, anticipating these issues may allow for a more successful screening program.

THOMAS MAHONEY

DNP, BSN, RN
NURSE ANESTHESIA (C)



Improving Fire Safety in an Ambulatory Surgery Center

Purpose

Patients undergoing procedures in the Ambulatory Surgery Center (ASC) at the University of Iowa Hospitals and Clinics (UIHC) are at risk for morbidity and mortality related to intraoperative fire injury. The Joint Commission issued a Sentinel Event Alert citing patient deaths and serious injury each year related to surgical fires. In order to minimize the risk of intraoperative fires for patients in the ASC, I have implemented an evidence-based practice project. The purpose of this project was to improve fire safety by implementing and sustaining evidence-

based fire safety practices while improving staff knowledge, confidence, and communication.

Methods

I used the Iowa Model of evidence-based practice (EBP).

Results

This project successfully improved anesthesia providers' ability to correctly recall all of the factors of the fire risk assessment score, improved communication of the individual factors of fire risk assessment during the perioperative

timeout, and improved intraoperative staff confidence in their role if an intraoperative fire were to occur.

Implication for Practice

Although there were improvements in fire safety practices, fire safety education and quality improvement efforts should be continued to further improve fire safety measures in the ASC.



BROOKE MARTIN

DNP, BSN, RN
PEDIATRIC NURSE PRACTITIONER–
PRIMARY CARE (C)

Screening for ACEs in the Pediatric Primary Care Setting Identifies High-Risk Children

Purpose

This project's purpose was early identification of high-risk children who experienced adverse childhood experiences (ACEs) by screening and earlier intervention compared to not screening for ACEs.

Methods

This pilot project utilized pre & post-education surveys to assess provider confidence in screening for ACEs. The pediatric ACEs and related life events screener (PEARLS) and pediatric symptom checklist (PSC-17) were utilized to assess high-risk children who need referrals to mental health services.

Results

This project showed an increase in providers' confidence in screening, an increase in ACEs screening, and increased mental health referrals.

Implication for Practice

Sixty-one children were screened for ACEs over three months at a primary care clinic. Twenty-four children were referred to mental health services. There was an 8-fold increase in mental health referrals during the project; this increase in mental health referrals shows that high-risk children were referred to services directly because of this screening project.



LUCILLE MAZZETTA

DNP, BSN, RN, CCRN
NURSE ANESTHESIA (C)

Optimizing Blood Management in Cardiothoracic Surgery

Purpose

The purpose of this evidenced-based quality improvement project was to optimize the surgical blood ordering process for cardiothoracic surgeries at the University of Iowa Hospitals and Clinics (UIHC). Developing an institution specific MSBOS for cardiothoracic surgical procedures at UIHC will offer recommendations on blood ordering guidelines based on the surgical procedure to be performed. Optimizing blood ordering will decrease the C:T in the cardiothoracic surgical services department. This will also decrease the cost of excess type and crossmatch testing for cardiothoracic surgical services.

Methods

All cardiothoracic procedures from January 2019 through March 2020 were included in this analysis (n=1604). Each procedure category was assessed for median estimated blood loss (EBL), transfusion index (TI), percent of patients transfused, high risk for bleeding, and if greater than four units were transfused in greater than 10% of patients. Based on this data, an algorithm was utilized to determine how much blood should be ordered for that procedure category preoperatively. The C:T was also analyzed to indicate areas where blood ordering exceeds blood transfusion.

Results

Data analysis revealed that most of the cardiothoracic procedures had a crossmatch to transfusion ratio greater than the goal of less than two. Only two procedures had a C:T less than two. Many areas for improvement were identified.

Implication for Practice

Cardiothoracic surgical services at UIHC are in need of blood product ordering optimization to decrease the crossmatch to transfusion ratio to less than two. Implementation of the Decreasing the C:T in cardiothoracic surgical services would decrease the waste of blood products and decrease the cost related to unnecessary laboratory testing.

CHANDRA L. MILLER

DNP, BSN, RN
FAMILY NURSE PRACTITIONER (C)



A retrospective review of the 5210 Healthy Habits Toolkit implementation in a pediatric primary care practice to evaluate implications for childhood obesity outcomes

Purpose

In recent years, childhood obesity has reached epidemic levels. According to the CDC, obesity affects about 14.4 million children and adolescents in the United States. In Iowa, 16.9 percent of youth ages 10 to 17 are obese and Iowa ranks 18 of out 51 nationally for this age category. This project completed a retrospective program evaluation for the implementation of the 5210 Healthy Habits Toolkit in a pediatric primary care clinic to identify lifestyle behaviors that reduce risks to overweight or obese children and adolescents.

Results

Results identified four key indicators for behaviors that patient most often want to change or improve including self-reported servings of fruits and vegetables, hours of sleep per night, hours of activity per day, and number of servings (8 ounces) of 100 percent juice per day. Evaluating these indicators, we found that increased servings of 100% juice predicts an increase in BMI. The other three factors protect against BMI increase, but not enough to overcome the significant increases by age.

Implication for Practice

By identifying healthy habits that most patients are interested to change and understanding the predicted size of effect of changing those habits, resources can be designed and targeted more effectively to improve outcomes for childhood obesity.

MEGAN MOBLEY

DNP, BSN, RN, CCRN
PEDIATRIC NURSE PRACTITIONER—PRIMA-
RY CARE (C)



Parental Psychosocial Screening: Enhancing Family-Centered Care for Children Newly Diagnosed with Cancer

Purpose

Parents and caregivers of children newly diagnosed with cancer are at risk for developing psychosocial distress. The integration of early parental psychosocial assessment and intervention was necessary to fill a gap on a hematology/oncology unit at an urban children's hospital.

Methods

The methods first included choosing a validated psychosocial assessment tool, establishing a standardized process, and creating an implementation team. Then, the staff was educated about the practice change and an electronic device was used to implement the

screening tool. A psychosocial education hand-out was also designed to provide appropriate education and resources to parents and caregivers. Interventions of the project included administering a psychosocial assessment tool and hand-out. The psycho-oncology provider then documented the assessment and interventions provided.

Results

The results indicated that 65% of parents and caregivers newly diagnosed with cancer completed the psychosocial assessment tool and 62% received psychosocial education and resources (N=34). Fifty-nine percent of

individuals had appropriate psychosocial assessment documentation, and 41% of psychosocial intervention documentation was present (N=34).

Implication for Practice

To conclude, the results were variable throughout, but a standardized process was successfully implemented.

TYNEISHA S. ORR

DNP, BSN, RN

DUAL: PEDIATRIC NURSE PRACTITIONER-PRIMARY CARE (C), FAMILY NURSE PRACTITIONER (C)



Evidence-Based Policy Recommendations for Streamlined Application of Social Service Benefit Programs in Iowa

Purpose

Federal and State social service benefit programs help vulnerable populations make ends meet. Eligibility overlap can increase cross-enrollment benefit opportunities by use of a streamlined application process. Providing evidence-based policy recommendations would support development of a streamlined application in Iowa.

Methods

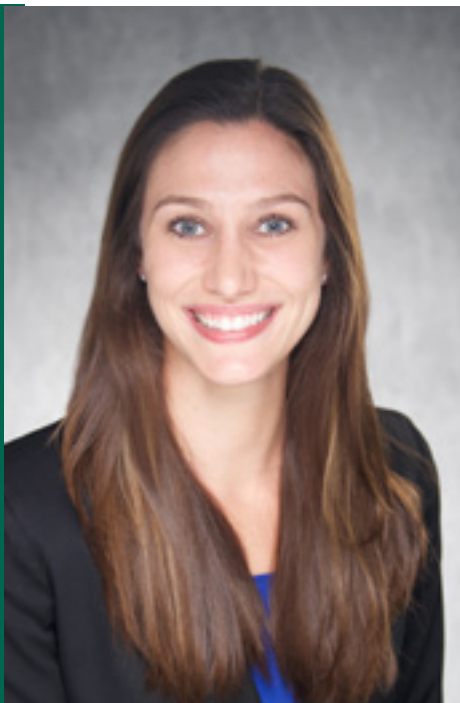
This doctoral project involved the Iowa Department of Human Services and the Iowa Department of Public Health. A PowerPoint presentation was given via Zoom with an anonymous Qualtrics Survey administered to stakeholder participants.

Results

Responses from Qualtrics Survey resulted in 100% participation. From responses, there was 100% agreement that feasibility of implementing a streamlined application would be beneficial for IDHS benefit programs and applicants.

Implication for Practice

This project has the aptitude to change nursing practice by informing nursing professionals of the disparities correlated to disadvantaged low-income communities and how benefit programs can improve healthcare outcomes for adults and children.



CHELSEA OWEN

DNP, BSN, RN
NURSE ANESTHESIA (C)

Improving Anesthesia Machine Safety Practices

Purpose

Anesthesia machine safety checklists ensure the completion of safety-critical steps and decrease the risk of error. Avoiding preventable machine malfunctions improves patient safety.

Methods

This project was a quality improvement patient safety initiative that updated anesthesia machine checkout guidelines for the Aespire anesthesia machines at UIHC. An anesthesia machine safety checklist was updated, and a demonstration video was created based upon feedback from a survey as well as the most recent safety guidelines. Providers were then evaluated for checklist comprehension and compliance.

Results

Post implementation of new checklists, demonstration video, and education for novice providers a survey revealed 92% (11/12) of checklist steps were improved or unchanged (+/- 5%).

Implication for Practicet

This project brought to light the safety issues that come from having multiple different anesthesia machines and checkout processes, and as a result, the anesthesia department at UIHC has purchased new machines with automated daily machine checkouts that will be the same throughout the institution.



KAYLA PARRY

DNP, BSN, RN
FAMILY NURSE PRACTITIONER (C)

Individualizing Heart Failure Education Based on Assessed Patient Need

Purpose

Heart failure (HF) is a complex, chronic disease managed with a combination of pharmacotherapy, lifestyle modifications, and self-care behaviors. The complex disease process and nonadherence to medications and lifestyle modifications increases the risk of hospitalizations, morbidity, and mortality. Although improving patient knowledge about disease management increases adherence to treatments, the cardiovascular clinic (CV) did not provide HF patients with formal education materials during clinic visits.

Methods

A quality improvement project was conducted to improve patient knowledge by individualizing education based on the assessed patient need. A HF guide was developed to improve access to patient education materials. Patient knowledge was assessed pre- and post-visit using the Dutch Heart Failure Knowledge Scale (DHFKS). Education was individualized by reviewing the pre-survey and providing education, with the HF guide, based on the questions answered incorrectly.

Results

A HF guide was implemented into practice in August 2021. Three months after implementation,

HF nurse coordinator post-surveys indicated 66% agree and 33% strongly agree patient education materials are accessible. DHFKS pre- to post-survey aggregated average scores (n=116) increased by 4.2%.

Implication for Practice

Assessing each patient's HF knowledge allowed nurse coordinators to provide individualized, patient-centered education based on the knowledge gaps identified on assessment.

ANDREA PERTL

DNP, BSN, RN
FAMILY NURSE PRACTITIONER (C)



Enhancing Proton Pump Inhibitor Stewardship in a Family Medicine Clinic

Purpose

Between the frequency of prescribing and lack of deprescribing, many patients are unnecessarily at risk for the negative outcomes associated with long-term proton pump inhibitor (PPI) use. Implementation of a PPI deprescribing process can reduce the risk of these outcomes. The success of deprescribing programs can improve if they include provider and patient education and an algorithm. Providers at a local institution identified a potential gap in PPI deprescribing practices. The purpose of the project was to enhance PPI stewardship to decrease the number of patients on long-term PPIs.

Methods

A PPI deprescribing algorithm and patient handout, as well as an auto-populated PPI prescription were integrated into the EHR. Prior to implementation, the project leader held an education session reviewing appropriate PPI stewardship practices and new resources. Data were collected through a provider questionnaire and EHR reports.

Results

Questionnaire knowledge scores increased from 94% to 100% and average agreement increased for three of the four perception and attitude statements. The algorithm and patient handout

were used infrequently. The number of PPI refills prescribed to patients decreased.

Implication for Practice

Reinforcing knowledge of PPI prescribing and deprescribing and integrating complementary resources into the EHR can increase provider awareness of appropriate PPI stewardship.



CHRISTINE N. RIES

DNP, BSN, RN
PEDIATRIC NURSE PRACTITIONER-
PRIMARY CARE (C)

Implementing Diagnostic Checklists to Guide Referrals for Marfan & Ehlers Danlos Syndromes

Purpose

The two most common connective tissue disorders (CTD) are Marfan Syndrome and Ehlers Danlos Syndrome, known as EDS (Connective tissue disorders, 2022). These patients require extensive follow-up care from multiple disciplines after diagnosis. The first step in diagnosis is conducting a screening using the appropriate checklist as a guide. At the conclusion of the screening, if the results are positive, a referral to a geneticist is imperative for further testing and management. A local pediatric office requested standardized screening procedure and referral protocols.

Methods

To navigate this task, an educational session was held to increase provider knowledge of available tools and

the diagnostic criteria of these CTD. Providers from the office were surveyed before and after the education. Referrals and checklist usage was tracked for a span of 6 months and eventually a query of the electronic medical records (EMR) was created. This project was deemed not human subjects research, thus did not require IRB approval. Research methods were consistent with the Iowa Model for Evidence Based Practice.

Results

A goal of screening the majority of suspected or high-risk patients was made and was met with 100% compliance. Followed by a goal of referring nearly all positive screenings to pediatric genetics which was also exceeded with total adherence; meaning all patients who were suspected or high-risk screened positive on the checklists and were also consequentially referred.

Provider knowledge also exceeded expectations with an average rating increase from 2.8 pre-education to 6.5 post-education out of 10. Additionally, providers reported feeling more confident referring to specialty services post education or an average rating increase of 2.4 points on a scale 1-10.

Implication for Practice

These findings strengthen the need for standardized referral processes to promote earlier diagnosis, leading to improved symptom management. Comprehensive healthcare requires a multi-disciplinary approach and the collaboration between primary care providers and specialists.

CATHERINE SALSBERY

DNP, BSN, RN
PSYCH-MENTAL HEALTH NURSE
PRACTITIONER (C)



Implementing a Depression Assessment and Intervention with Breast Cancer Patients

Purpose

Breast cancer is the most frequently diagnosed cancer type among women in the United States. Treatment for breast cancer can be distressing for patients due to physical changes in appearance and side effects. Assessment and treatment of depression in breast cancer patients can improve treatment outcomes and reduce complications with future health screenings and treatment. The outpatient cancer center at UnityPoint–Trinity lacked a formalized process to assess presence or severity of depression, and documentation of this screening on survivorship care plans for patients receiving treatment for breast cancer.

Methods

A formalized screening process was developed and implemented for depression assessment in patients to address the mental health needs of breast cancer patients receiving curative treatment for stage I, II or III breast cancer. An intervention was developed, utilizing the Patient Health Questionnaire (PHQ-9). Interventions were offered based on the PHQ-9 score. Interventions: A depression assessment was completed utilizing the PHQ-9 screening with patients diagnosed with stage I, II, or III breast cancer receiving curative treatment. Interventions were offered based on screening score; any patient with a score of 5 or greater was offered intervention. Documentation of screening on survivorship care plan would be completed following assessment.

Results

A total of 26 patients were diagnosed with breast cancer during the implementation period. All 26 patients received the depression screening; 26 patients (100%) had a positive screen, indicating presence of symptoms of depression.

Implication for Practice

The intention of this evidence-based practice change project was to assess presence and severity of depression in patients receiving curative treatment for stage I, II, or III breast cancer using a standardized process. Assessment of depression has improved; documentation of depression screening on survivorship care plan is needed.



JULIA SASS

DNP, BSN, RN
PSYCH-MENTAL HEALTH
NURSE PRACTITIONER (C)

Education Initiative for Inpatient Nurses Administering Buprenorphine/Naloxone (Suboxone)

Purpose

In the United States, the veteran population has significantly suffered due to the opioid epidemic. This rise in opioid-related hospitalizations necessitates improving inpatient nurses' knowledge about opioid misuse, opioid use disorder, and available treatment modalities. In August 2021, a new policy was implemented for inpatient opioid use disorder treatment at the Iowa City Veterans Affairs Medical Center. When implemented, a need for education was identified based on nurses' questions about the policy, OUD, and Buprenorphine/Naloxone (Suboxone) treatment.

Methods

The implementation of an educational training intervention was created and focused on assessing

opioid withdrawal, documenting withdrawal, utilizing the Clinical Opioid Withdrawal Scale (COWS), and placing an order set into the medical record for Suboxone administration. The data was drawn from the educational program software called Talent Management Systems. Chart audits were conducted to assess Veterans who received Suboxone inpatient and proper application of this policy. An online education program was provided on Suboxone, a Food and Drug Administration indicated treatment for OUD to increase inpatient nurses' knowledge on assessing opioid withdrawal, documenting withdrawal utilizing the COWS, and placing an order set into the medical record for Suboxone administration following the new protocol.

Results

Out of 133 nurses assigned, 103 nurses have completed

the online education intervention (77.4% course completion rate). Duplicate or incomplete data was removed to prevent skewed results. Nursing staff increased knowledge of opioid use disorder and Suboxone by 21.7% from baseline knowledge. A chart audit was performed for objectives three and four to compare pre- and post- protocol implementation of COWS documented by inpatient nurses and Suboxone order sets in the electronic medical record.

Implication for Practice

Nursing knowledge has increased with the educational training intervention; however, supplemental education may be needed when the protocol is utilized initially. More time is required to evaluate the chart audits as a limited number of inpatient veterans receive this treatment modality.

JESSICA SCHLAGER

DNP, BSN, RN, PHN
NURSE ANESTHESIA (C)



Improving Anesthesia Patient Safety in Magnetic Resonance Imaging

Purpose

This evidence-based practice project aimed to improve anesthesia providers' compliance with current non-operating room anesthesia (NORA) national patient safety recommendations in the magnetic resonance imaging (MRI) suites. MRI presents specific safety concerns related to its strong magnetic field that requires nonmagnetic equipment, increases the distance providers are from the airway and can create projectile items that can cause patient morbidity and mortality (M&M). Currently, at the University of Iowa Hospitals & Clinics (UIHC), providers do not have a standardized assessment of NORA locations, including MRI.

Methods

An anonymous pre-intervention and post-intervention survey assessed anesthesia providers' awareness, confidence, and knowledge of MRI safety recommendations. The participant population included anesthesiologists, certified registered nurse anesthetists (CRNAs), anesthesia residents, student registered nurse anesthetists (SRNAs), and anesthesia technicians. A checklist and educational resources were developed based on national anesthesia safety recommendations and anesthesia staff feedback.

Results

These interventions improved anesthesia providers' awareness and knowledge of national anesthesia safety recommendations in the MRI suites but did not change confidence. Checklist adherence was not achieved.

Implication for Practice

The checklist may have been a poor measure of adherence to NORA safety checks due to time constraints and the COVID-19 pandemic. However, the project improved safety in NORA locations at UIHC by successfully improving anesthesia providers' awareness and knowledge.



KRYSTAL SCHMIEG

DNP, BSN, RN
FAMILY NURSE PRACTITIONER (C)

Development and implementation of an evidence-based diabetic ketoacidosis (DKA) protocol in the intensive care unit (ICU): a pilot project

Purpose

Diabetic ketoacidosis (DKA) is an acute metabolic complication of patients with type 1 and 2 diabetes mellitus. Critical components of DKA management include fluid resuscitation, insulin treatment, and labs for electrolyte replacement and DKA resolution.¹ Annual U.S. DKA readmissions are over 5% leading to costs exceeding 2 billion dollars.^{2,3} Outpatient factors contributing to DKA include noncompliance, illness and insulin costs.³ Problem: As of 2015 U.S. adult hospitalizations for DKA equaled 24.9 per 1,000.⁴ In 2020, 69 DKA patients were admitted at GRMC, 40% of which were readmitted for DKA within 90 days.

The goal of this project includes 75% of providers and 95% of ICU nurses will comply with implementing the pilot DKA protocol. The 3rd goal is a 25% reduction

in 90-day DKA readmissions. Lastly, 90% of all DKA patients will receive education prior to discharge.

Methods

A pilot DKA protocol was created using an evidence-based team approach. It incorporated patient education utilizing diabetic educators to promote patient self-care in hopes of reducing readmissions. Research articles providing evidence based DKA interventions were used to create the pilot protocol. The trial was approved by GRMC's executive board, providers, and nurses. Education was completed for all staff prior to project implementation. Surveys and chart audit data were disseminated post project to determine if objectives were met.

Results

Eighty-five percent of the 20 providers and 87% of the 25 ICU nurses complied implementing the protocol. There was a 27% decrease in 90-day readmissions compared the previous year during the same time frame. 95.5% of DKA patients received education prior to discharge.

Implication for Practice

This project standardized DKA patient care by utilizing evidence-based updates to essential treatment pieces that were lacking in GRMC's previous DKA protocol.

KERI L. SHADY

DNP, BSN, RN
PSYCH-MENTAL HEALTH
NURSE PRACTITIONER (C)



Implementation of Adverse Childhood Experiences (ACEs) Patient Assessment Program on a Medical-Surgical Unit

Purpose

In small communities with limited access to mental health services, educating nursing staff on adverse childhood experiences (ACEs) can be beneficial to patients with mental health needs upon discharge; implementation can decrease the risk of long-term health complications.

Methods

Included pre- and post-surveys along with an educational presentation at Jackson County Regional Health Center, in Maquoketa, Iowa.

Results

A modified ACEs scoring tool was implemented into the patient's electronic health records before completion of the project.

Implication for Practice

Although the modified ACEs questionnaire has been implemented into the electronic health record, it is not being utilized or results tracked at this time due to lack of staffing.



TAYLOR L. STILLE

DNP, ARNP, FNP-BC
PSYCH-MENTAL HEALTH NURSE
PRACTITIONER (C)

Implementing an evidence-based guideline to improve management of pediatric ADHD treatment in a family medicine clinic

Purpose

Attention Deficit Hyperactivity Disorder has seen a 43% increased prevalence in pediatric patients since 2003 in which 53% of these diagnoses shown to be made by a General Practitioner (GP). Many GPs have been seen through others' research as reporting a significant level of hesitation with ADHD treatment with assumed cardiovascular risk of psychostimulant medication. With the current lack of providers and lengthy wait times for psychiatric referral, access to ADHD treatment via specialty providers especially within rural areas continues to be a struggle. With this assumed cardiovascular risk of psychostimulants by many general practitioners towards a mainstay treatment of ADHD for many years, the purpose was therefore to improve management of pediatric ADHD treatment and access of care within these outpatient family medicine clinics via implementation of an evidence-based guideline.

Methods

The proposed change is to provide evidence-based education, medication risk/use awareness, and overall improved guidance within pediatric ADHD treatment to family medicine providers, more specifically proper cardiovascular screening prior to psychostimulant prescription. The first objective will be of whether the cardiovascular questionnaire was completed within 2 weeks of new ADHD diagnosis prior to psychostimulant prescription. The second objective will be of whether an EKG was completed within 2 weeks of new ADHD diagnosis prior to psychostimulant medication. Lastly the third objective will be if a pediatric cardiology referral was made within one week when either a positive result on the cardiovascular screener and/or an abnormal EKG were found.

Results

The project's three outcomes called for a 90% compliance rate and although none of the three outcomes were officially met, all three scored at least 80% adherence and were seen as quite impactful to the clinic. Outcome one resulted with 19/22 questionnaires completed yielding 86%. Outcome two resulted in 18/22 EKGs completed yielding 82%. Lastly, outcome three resulted in 4/5 necessary pediatric cardiology referrals completed yielding 80%. Additional outcomes were also seen to show improvement in staff's reported knowledge/confidence within psychostimulants as the project progressed. On data analysis it was seen that most times when tools were not utilized it was related to something of external control (family not knowing full history on questionnaire, pediatric cardiology not accepting patients until after they have a chance to review the note first, etc.).

Implication for Practice

Overall, this project was seen to be clinically significant vs. statistically significant as generalizations were unable to be made with a smaller sample size (n=22) with COVID-19 pandemic being just one barrier to implementation potential. Looking forward with the continued lack of psychiatric provider availability and increased prevalence of ADHD diagnoses nationwide, GPs will continue to play a large role within pediatric ADHD care. With the known effectiveness of psychostimulants, it is important to decrease GPs' hesitation towards them by providing adequate resources to improve their knowledge/confidence of the medication use/risk. By implementing a standard of care focused on cardiovascular screening, an environment can be created that allows for better management of ADHD symptoms as well as improved access to ADHD treatment for patients, especially within rural areas.



BRITTNEY A. SUCKOW

DNP, BSN, RN
PEDIATRIC NURSE PRACTITIONER-
PRIMARY CARE (C)

Improving Newborn Vitamin K Compliance and Surveillance

Purpose

Parental vitamin K (VK) refusal at birth is becoming an alarming trend. The purpose of this project sought to influence a process change by a) encouraging parental educators to feel confident in providing VK education, b) providing early parental education during the antepartum phase, and c) introducing a new surveillance tool to enhance clinic provider awareness of continued refusal. Project objectives occurred at a small rural hospital, striving to increase VK compliance at birth and decrease adverse effects associated with Vitamin K Deficiency Bleeding (VKDB).

Methods

A one-year pre-implementation chart review (n=199) was conducted and compared to a five-month post-

project implementation (n=83) to determine if the VK education provided by the Women's Clinic staff at the 32-week prenatal appointment could effectively increase vitamin K compliance after birth. All infants seen at the clinic were then closely tracked. Refusal incidents were notified to the provider immediately at the infant's 2-week appointment and highlighted within a protected database for long-term monitoring.

Results

Staff reported feeling 100% confident in providing VK education after extensive VK training, and 52 couples received the education over the five-month project duration. The one-year pre-project implementation chart review concluded a VK compliance rate of 98.49% (n=196), while the five-month post-implementation compliance rate was 97.59% (n=81).

Clinic surveillance and provider reporting were 100% successful at identifying newborns at risk for VKDB.

Implication for Practice

Easy virtual access to misinformation has significantly contributed to the increased rates of parental VK refusal. Refusal strains pediatric providers into having difficult conversations with parents after delivery, which is unsuitable as the recommended window to give VK is within the first six hours of life. A common notion concluded from the literature proposes whether providing early parental education can enhance VK administration compliance and lower VKDB cases. However, no study has tested the theory even after this proposed process change, giving this quality improvement project significant value and purpose.

JOSEPHINE THURMOND

DNP, BSN, RN
FAMILY NURSE PRACTITIONER (C)



Improving psychiatric care at a student health clinic through PDSA cycles: Implementation of non-pharmacologic interventions and the Adult ADHD Self-Report Scale

Purpose

College students face unique challenges which predispose them to recurring or new onset mental health issues. Suicide is the third leading cause of death among Americans aged 15–24 years old.¹ Given these data, this quality improvement (QI) and quality assurance (QA) project aims to optimize mental health screening and treatment in a student health clinic through sustainable, cost-effective, efficient, and patient-centered interventions. A student health clinic in Des Moines, IA desires to improve screening and treatment related to mental health.

Methods

The quality of mental health processes were refined via Plan-Do-Study-Act (PDSA) cycles. Clinical staff were educated on non-pharmacologic interventions (NPIs) and then began routinely educating students with mental health concerns on these. The ADHD screening was also changed for improved efficiency. Staff satisfaction was measured with surveys which were administered pre- and post-process improvement.

Results

The quality of the clinic's mental health screening tools and processes were improved

by recommended process changes as outlined in two PDSA cycles. The percentage of students educated on NPIs steadily increased from 0% at pre-implementation to 100% at the end of implementation. Mean staff scores showed improvements in multiple measures.

Implication for Practice

This project attests that QI/QA efforts are valuable to enhance and build upon current processes. These efforts benefit clinical staff and presumably patients.



ROSS VAN ALLEN

DNP, BSN, RN
PSYCH-MENTAL HEALTH NURSE
PRACTITIONER (C)

Improving Utilization of the LEAN on Me Mental Health Hotline

Purpose

Nursing students suffer from higher rates of mental dysregulation than the general population, yet few interventions have been implemented to combat the issue. The Listening, Evaluating, and Activating Nurses (LEAN on Me) mental health hotline was implemented as a resource for nursing students to utilize when experiencing stress. However, utilization of the hotline remains low. The purpose of this project was to determine if increasing awareness and familiarity result in increased utilization, and to report findings to the hotline directors to suggest improvements.

Methods

One undergraduate and one graduate mental health didactic course offered by the University of Iowa College of Nursing (N=86) were selected to observe an in-class presentation explaining the purpose of the LEAN on Me hotline and how to utilize as a resource. Students completed a pre-presentation survey assessing their awareness and perceptions of the hotline, then completed a post-presentation survey assessing their perceptions of the hotline after observing the presentation.

Results

Findings suggest that outreach efforts to increase awareness and familiarity with the hotline may increase utilization; however, data gathered was inconclusive.

MEGAN J. VOLKOV

DNP, ARNP, AG-PCNP
Post-Masters DNP

Assessment of Quality of Life in Patients with Irritable Bowel Syndrome

Results

Prior to this project, providers at Thrive Integrative Medicine did not use a screening tool for QOL in IBS patients. After education about the tool, two of the three providers reported increased knowledge of screening and use of the IBS QOL screening tool. One of the three providers had increased confidence in screening of IBS QOL and two of the three providers reported increased confidence in use of a screening tool. At project completion all three providers reported increased knowledge in screening and use of the IBS QOL screening tool, and two out of three providers reported increased confidence in screening and use of the IBS QOL tool.

Use of the IBS QOL questionnaire commenced October 4, 2021, and ended February 28, 2022, with 20 questionnaires collected ; nineteen were collected by one of the three providers. Out of the questionnaires collected, nineteen were the three-question questionnaire and one was the full 34 question questionnaire. The providers reported the three-

questionnaire was found to be more user friendly and less time consuming than the 34-question questionnaire. Primary use of the three-question questionnaire changed the project's original purpose of improving QOL in patients diagnosed with IBS to an emphasis on impaired QOL related to the impact of food on IBS symptoms and IgG testing to initiate a food elimination plan. Fourteen of the twenty surveys were first time screenings and all but one scored "highly impaired quality of life." Six of the twenty surveys were follow-up screenings after intervention. IgG testing was initiated for ten of the thirteen "highly impaired QOL" (77%) initial screening results. Five received a follow-up appointment after IgG testing and food elimination with four of the five reporting improvement in at least one of the three food domain questions.

Implication for Practice

The project at Thrive Integrative Medicine demonstrated collaboration of medical and nursing disciplines and highlighted nursing's emphasis on the whole patient quality care through assessment of quality of life. Providers learned about an IBS specific QOL assessment tool, implemented evidence-based IBS QOL screening into their practice, and increased their knowledge and confidence in screening and use of the new evaluation tool. Assessment of high impaired quality of life prompted providers to explore interventions including IgG testing for possible food elimination planning. Providers at Thrive Integrative Medicine continue to collect data with plans to present their work to local GI experts who refer to their practice, as well as ND colleagues. To ensure continued use of the tool, dissemination of the results, and further exploration of best evidence in the care of patients with IBS, placement of another DNP student at Thrive Integrative Medicine would be beneficial.



RACHEL WEIGEL

DNP, BSN, RN
PEDIATRIC NURSE PRACTITIONER–
PRIMARY CARE (C)

Standardization of Nasogastric Feeding Tube Discharge Education

Purpose

Placing and using a nasogastric feeding (NG) tube is a medical procedure that carries serious risk related to aspiration. There has been inconsistent education being provided to caregivers of neonatal intensive care unit (NICU) patients discharging home with NG tubes regarding proper use and management of the tubes. The purpose of this project was to create and implement a standardized method of providing NG tube discharge education to caregivers of patients in the University of Iowa Stead Family Children's Hospital NICU to ensure their knowledge, skill, and comfort of NG tube management at home.

Methods

This was done by educating NICU nurses about NG tube educational milestones and requirements and implementing caregiver NG tube resource packets highlighting the steps in the educational process into use. The objectives were to increase confidence of NICU staff nurses in providing NG tube discharge teaching, produce high confidence of caregivers of NICU patients discharged home with NG tubes, and to utilize the suggested method of providing NG tube discharge education.

Results

Nurse confidence in providing NG tube discharge education increased from 47.1% ($P = 0.236$) confident or very confident to 60.9% ($P = 0.333$)

after education was provided. Caregiver NG tube resource packets were used in 28.6% of discharges. No caregiver surveys regarding discharge education were returned.

Implication for Practice

ICU staff nurses gained knowledge and confidence to properly educate caregivers about home NG tube use. Using an evidence-based method of NG tube discharge education allows for more cost-effective, comfortable, and safe care of the NICU patient in the home setting. However, getting nurses to participate in a change in practice is difficult, takes time, and requires involvement of management.

ANNA WEIKAMP

DNP, BSN, RN
ADULT GERIATRIC-ACUTE CARE
NURSE PRACTITIONER (C)



Tracking and improvement of quality-of-life COPD and/or heart failure in home hospice patients using Edmonton Symptom Assessment System

Purpose

Initiate the tracking of home hospice patients with either a COPD or Heart Failure diagnosis quality of life scoring system. Enforcing teaching that would non-pharmacologically enhance quality of life (including anxiety, depression, and dyspnea) if the patients scored below a certain level on their scale will also be addressed.

Methods

Nursing and social work staff used the Edmonton Symptom Assessment System (ESAS) to assess symptom burden. ESAS on admission (T0) was compared to their last scored before death or discharge (T-end). If patients scored below a 7 (on a 0-10 scale) the nurse or social worker would provide education using written materials. Surveys

completed by hospice nursing and social work staff pre-implementation and post-project knowledge and comfort level, regarding symptom management were assessed.

Results

Forty-one COPD and/or HF patients were admitted to hospice over six months. Total ESAS score were assessed to determine impact of project interventions, went from 19.8 to 17.8, showing improvement. Anxiety score, 0 being no anxiety and 10 being the worst anxiety) went from 4.2 to 0, showing a 42% decrease. Depression score went from 3.8 to 1.4, a 63% improvement. Dyspnea score went from 4.6 to 1.0, a 78% improvement. Evaluation of data showed that at six months post-training, nursing and social work staff rated their knowledge on education and resources

regarding anxiety, depression, and dyspnea techniques 14% higher than on the pre-assessment. Nurse and social workers also felt 13% more comfortable on educating patients and families on interventions that could benefit quality of life.

Implication for Practice

Assessing quality of life in home hospice patients allows nursing and social work staff to identify areas where the patient is struggling and can allow for early intervention of non-pharmacological techniques that can increase quality of life. Continued assessment and education given by the nursing and social work staff also allowed employees to gain comfort and knowledge regarding patient resources available to increase quality of life.



RACHEL WENG

DNP, BSN, RN
PEDIATRIC NURSE PRACTITIONER-
PRIMARY CARE (C)

Utilization of Evidence-Based Guidelines to Improve Psychosocial Aspect of Care to Childhood Cancer Survivors

Purpose

With the increase of childhood cancer survival rate in the past half decade, the risk of developing late effects has increased as well. Childhood cancer survivors receive physical care in long-term follow-up (LTFU) clinics, but fewer receive psychosocial assessments. Psychosocial late effects can cause multifaceted problems and overall increased healthcare expenditure and burden for patients and families, healthcare facilities, and the healthcare system. At Stead Family Children's Hospital (SFCH) Cancer Center clinic, survivors often seek psychosocial support when mental illnesses become significantly affecting their everyday lives instead of having regular mental health assessments.

The purpose of this project was to improve the psychosocial care provided at SFCH Cancer Center clinic.

Methods

PubMed, CINAHL, and internet research were done to locate a solution for the local problem. This project followed the evidence-based practice guidelines recommended by the Children's Oncology Group (COG) that every survivor should receive an annual psychosocial assessment. A newly developed educational handout, post-education survey, and notecards were used as interventions.

Results

Sixty-four survey and 65 notecards were received during the project period. 66% of survey respondents identified their knowledge regarding psychosocial late effects had increased. 86% of notecard respondents were scheduled for future psychosocial assessments. 100% survivors with psychosocial needs received treatments.

Implicaiton for Practice

The use of the educational handout and notecards showed success. A new clinic visit norm for survivors was established. Further evaluation of resources and workflow to capture more survivors in the clinic is needed.

LISA WOLTERMAN

DNP, ARNP, CRNA
POST-MASTERS DNP

Improving Difficult Intravenous Access for Veterans Using Ultrasound

Purpose

Difficult vascular access is technically challenging. Traditional techniques often fail due to many factors, including anatomic challenges and patient acuity; therefore, necessitating timely vascular access consult with specialty services. Professional organizations and societies document the benefits of using ultrasound for intravenous access. The evidence-based practice supports ultrasound-guided (USG) peripheral intravenous (PIV) access as an appropriate nursing intervention.

Methods

The project director used the Institute of Medicine's Six Aims and Triple Aim of Healthcare to collect and analyze existing research. The project director developed and implemented an USG PIV access training program based on successful programs described in the literature. All

participants were expected to complete the didactic education, simulation laboratory, competency checklist, final exam, and satisfaction survey. Due to staffing challenges, the project director developed a condensed didactic and simulation laboratory for participants. Proctored live-person USG PIV accesses were required. The number of peripheral venous access consults was tracked by interventional radiology and anesthesia services pre- and post-implementation to evaluate changes in specialty services utilization. Participants were asked to record patient satisfaction and USG PIV access attempts post live-person competency. The project director queried participants about their experiences and satisfaction post-training.

Results

Twenty-nine nurses participated in the training sessions, 25 full versions, and four condensed training versions. Seven participants achieved post-training live-person competency. Although data is limited, comparing four months pre- and post-training, the number of peripheral vascular access consults have decreased for anesthesiology (by 48%), and interventional radiology (by 33%) services. Participants report that 100% of patients verbalized satisfaction and appreciation regarding USG PIV access and availability of this service. Nurse participants verbalized appreciation and satisfaction with the training and new skills.

Implications for Practice

This quality improvement project advanced nursing practice by promoting nurse autonomy and providing veteran-centered evidence-based care to increase successful ultrasound-guided peripheral intravenous access. Didactic, simulation, and non-invasive hands-on training created a high-quality environment to move toward nurse-placed ultrasound-guided peripheral intravenous access. This training proved to be effective in teaching USG PIV techniques. The Covid Pandemic created staff shortages and decreased nurses' ability to participate; therefore, the project director developed condensed training to educate more participants. The national VA Talent Management System electronic education platform will provide the didactic material. Individual sites will establish an onsite simulation laboratory.



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Improving Efficiency of Obstetric Triage and Patient Outcomes through Implementation of the Maternal Fetal Triage Index (MFTI)

Purpose

Prolonged triage times in labor and delivery lead to increased morbidity and mortality for patients. The current practice is to admit patients on a first come, first serve basis, which is inefficient, dissatisfying for patients and staff, and not evidence-based. AWHONN's maternal fetal triage index (MFTI) is evidence-based and provides a framework for triage in obstetric settings. To address barriers to timely triage and develop a more efficient practice, including implementation of the maternal fetal triage index (MFTI) to decrease provider time to bedside, decrease overall triage time, and improve staff satisfaction.

Methods

This project is a quality improvement initiative to address patient safety and staff satisfaction. The project was deemed not human subjects research by the hospital IRB. We implemented AWHONN's maternal fetal triage index (MFTI) in labor and delivery at UIHC. The measurable outcomes were percentage of nurses competent in assigning MFTI scores, the satisfaction level of nurses, and the change in patient triage times including provider time to bedside and total triage time.

Results

Prior to implementation, 37 out of the 48 (77%) staff nurses in labor in delivery were present at education sessions. When comparing pre-implementation data (n = 100) to post-

implementation data (n = 90), provider time to bedside decreased from an average of 55.66 minutes to 52.96 minutes (p = 0.706) and total triage time decreased from an average of 247.96 minutes to 197.9 minutes (p = 0.045). Nurses reported increased satisfaction with the MFTI.

Implication for Practice

Despite the short timeframe of this project, outcomes support continued use of the MFTI for obstetric triage. System factors such as provider coverage, number of triage beds, and nurse staffing, should be considered when further evaluating patient outcomes.

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