THE 6ᵀᴴ ANNUAL NURSING RESEARCH SYMPOSIUM

Engaging Nurses in Research through Meaningful Collaboration

September 23, 2016 | 8:00 AM – 4:00 PM

Grand Hall Auditorium
Montefiore, Moses Campus
120 East Gun Hill Road
Bronx, New York 10467

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CONTINUING EDUCATION INFORMATION

The 6th Annual Nursing Research Symposium has been approved for seven nursing contact hours. The code assigned to this offering is **NYP268-5/16-19**. Montefiore Learning Network is an approved provider of continuing nursing education by the New Jersey State Nurses Association, an accredited approver by the American Nurses Credentialing Centers Commission on Accreditation.

WELCOME MESSAGE

On behalf of the Montefiore Nursing Research Council, it is with great pride that we welcome you to the 6th Annual Nursing Research Symposium. This year's theme is "Engaging Nurses in Research through Meaningful Collaboration," and it reflects the power of interprofessional collaboration and teamwork. The symposium showcases the latest scientific advances and efforts to achieve sustainability through research, evidence-based practice and performance improvement approaches to enhance every patient's experience and to ensure positive outcomes at every level of Montefiore's integrated care delivery system. Furthermore, the annual symposium provides the ideal forum to introduce innovations, best practices and groundbreaking research to the field of nursing.

Montefiore's Nursing Research Council makes strides each and every year to maintain the scientific, technical and leadership infrastructure necessary to advance our excellent patient-centered care. This conference is the result of the tireless work of members of the research council. These members continue to give unselfishly of themselves to engage point-of-care nurses and nurses from other disciplines in various methodologies to bring about change in different aspects as they care for patients and their families daily. We congratulate the Council members for their tireless efforts, and for making this annual event a resounding success.

As both novice and expert presenters share their work, we hope that you will be inspired to seek opportunities to get involved with research at some level. This is an ideal opportunity for transformative learning through dialogue with colleagues, the beginning of new friendships, and creative exchange of ideas that will chart the course for new directions in this rapidly changing and complex healthcare landscape. We know that your participation in this year's symposium will be both professionally and personally rewarding.

Finally, we thank you for your continued support, dedication in leading the charge to advance nursing practice, and commitment to enhancing every patient's experience to achieve and sustain positive outcomes at Montefiore.

Sincerely,

Farley A. Villarente, MSN, RN, FNP, CNOR
Nursing Research Council Chair

Mintie Indar-Maraj, EdDc, RN-BC
Veronica K. Thompson, EdD, RN-BC, FNP-BC
Nursing Research Council Vice Chairs

THE 6TH ANNUAL NURSING RESEARCH SYMPOSIUM

Engaging Nurses in Research through Meaningful Collaboration

PURPOSE

This symposium provides a forum for nurses and other healthcare professionals to share research, evidence-based practice, and quality improvement findings and experiences. The symposium facilitates a milieu that fosters collegial relationships and promotes the opportunity to understand research and the various roles needed to conduct research studies, implement evidence-based practice and initiate quality improvement projects.

LEARNING OBJECTIVES

At the end of the symposium, participants will be able to:

1. Discuss current trends in research and innovation in nursing and healthcare.

2. Provide examples of using evidence to improve care and patient outcomes.

3. Identify opportunities for research, dissemination of findings and application of evidence.

4. Describe an approach for engaging in a collaborative relationship to advance nursing research.

KEYNOTE SPEAKER: MARY A. DOLANSKY, PHD, RN
Connecting the Dots to Quality and Safety Science

Dr. Dolansky is an Associate Professor at the Frances Payne Bolton School of Nursing, Case Western Reserve University (CWRU), and Director of the QSEN Institute (Quality and Safety Education for Nurses). She is also director of interprofessional education for the Veterans Administration (VA) Transforming Primary Care Project, a longitudinal interdisciplinary curriculum, which includes integrating teamwork and quality improvement into an academic clinical medical home model. Dr. Dolansky mentors pre- and postdoctoral nurses in the VA Quality Scholars program.

Her research focuses on the care transitions of older cardiac patients from hospital to home, as well as the integration of cardiac rehabilitation. She is conducting a National Institutes of Health–funded study examining the relationships among cognitive function, self-management and depression in heart failure patients. Dr. Dolansky has also published an implementation study on integrating heart failure protocols in a skilled nursing facility and was the lead co-author of an American Heart Association Scientific Statement on heart failure guidelines in skilled nursing facilities.

She has also co-published two books on quality improvement education, co-authored several book chapters and articles, and served as guest editor of a special quality improvement education issue of the *Journal of Quality Management in Healthcare*. Dr. Dolansky has taught the interdisciplinary course on quality improvement at CWRU for the past 10 years and previously served as chair of the quality and safety task force at the School of Nursing that integrated quality and safety into the undergraduate and graduate nursing curricula. She was also instrumental in launching a massive open online course (MOOC) titled "Take the Lead in Quality Improvement."

AGENDA

8:00 – 8:10 AM

Welcome Address
Mary Ellen Lindros, EdD, RN
Director, Professional Practice/Nursing Quality Officer

8:10 – 9:15 AM

Keynote Address: *Connecting the Dots to Quality and Safety Science*
Mary A. Dolansky, RN, PhD
Director, Quality and Safety Education for Nurses (QSEN Institute)
Associate Professor, Frances Payne Bolton School of Nursing, Case Western Reserve University

9:15 – 9:35 AM

Research Presentation I: *The Lived Experience of Senior Nurses Working with Health Information Technology in Their Daily Practice*
Bernice Bramble, PhD, RN, MS, MBA, CCRN

9:35– 9:55 AM

Research Presentation II: *HAPPI-2 (Hospital-Acquired Pneumonia Prevention Initiative): Phase I*
Mary Tesoro, DNS, RN-BC

9:55 – 10:10 AM

Break

10:10 – 10:35 AM

Nursing Research and the Magnet Journey
Diane Peyser, MS, RN, NEA-BC
Nursing Project Director, Magnet

10:35 – 10:50 AM

Research Presentation III: *Nutritional Composition of the Human Placenta*
Laura Lodico, BSN, RN

10:50 – 11:05 AM

Research Presentation IV: *Nurse Leader Rounds: Effect on Nurse-Related Patient Satisfaction Scores on Two Post-Surgical Units in an Acute Care Facility*
Angela Babaev, DNP, CNS, RN

11:05 – 11:25 AM

Research Presentation V: *Health Informatics Security and Privacy: A Social Science Exploration of Nurses' Knowledge and Risk Behaviors with Security and Privacy Focusing on the Use of Mobile Devices*
Keith Richard Weiner, RN, MSc

11:25 AM – Noon

Research Presentation VI:

Rounding Matters! Make It Purposeful
Rondy Ramah, BSN, RN, PCC
Laurel Carlin-Leclerc, BSN, RN, PCC

Reducing Falls on a Medical Surgical Unit: A Performance Improvement Project
Anita Chinapen, BSN, RN, PCC

Initiating and Maintaining a Fall Prevention Bundle on a Rehabilitation Unit through Team Collaboration
Sheila V. Chatman, MSN, RN, MHA, CCM

Noon – 1:30 PM

Lunch, Break, Poster Session and Networking

1:30 – 2:00 PM	**Research Presentation VII:**
	Caterina P. Minniti, MD
	Director, Hematology/Sickle Cell Center for Adults
	Montefiore

Nurse Practitioner-Driven Collaborative Consult Service in the Sickle Cell Department
Charleen Jacobs, ANP-BC, MS, RN

A Patient-Centered Approach to Identify Barriers to Outpatient Clinic Attendance in an Urban Population of Adults with Sickle Cell Disease
Lauren Mariotti, LMSW

Prevalence of Sickle Cell Retinopathy in Patients with Sickle Cell Disease in an Academic Tertiary Medical Center: Is There a Hydroxyurea Effect?
Leena Vattappally, FNP, RN

2:00 – 2:20 PM   **Research Presentation VIII:** *Exploring Nurse Burnout in the Intensive Care Setting: A Review of the Literature*
Nadege Rihan, MA, RN
Shiyon Mathew, MA, RN

2:20 – 2:40 PM   **Research Presentation IX:** *Primary Native Languages and the Development of Cultural Competence among Community College Nurses in the New York Metropolitan Area*
Korto L. Scott, EdD, RN, FNP

2:40 – 3:00 PM   **Research Presentation X:** *Healthcare Professionals' Perceptions of the Use of Medical Records: A Qualitative Study*
Adebisi Adeyeye, DHA, MPH, RN, CIC

3:00 – 3:15 PM   **Break**

3:15 - 3:45 PM   Peter Shamamian, MD, FACS
Vice President and Chief Quality Officer
Vice Chairman, Quality Improvement and Performance

3:45 – 3:55 PM   **Recognition & Closing Remarks**
Diane Peyser, MS, RN, NEA-BC
Nursing Project Director, Magnet

3:55 – 4:00 PM   **Evaluation and Distribution of Certificates**
Pio G. Paunon, PhD, RN, FCCP, FHCQM
Cassandra Dobson, PhD, MS, RN-BC, PHc
Advisors, Nursing Research Council

1. HEALTHCARE PROFESSIONALS' PERCEPTIONS OF THE USE OF MEDICAL RECORDS: A QUALITATIVE STUDY

Category: Research
IRB Number: 813269-1
Author: Adebisi Adeyeye, DHA, MPH, RN, CIC

INTRODUCTION

Electronic medical record (EMR) use has improved significantly in healthcare organizations. However, many barriers and factors influence the success of EMR implementation and adoption. Understanding the perceptions of healthcare professionals regarding the use of EMRs is a timely and important area of research. Research into healthcare professionals' perceptions about EMR use has contributed to the current body of literature. The objective of the study was to provide valuable data to assist healthcare leaders in applying the strategies necessary for successful engagement in adopting technology.

PURPOSE

The purpose of the descriptive qualitative single-case study was to explore healthcare professionals' perceptions of the use of EMRs at a hospital division of a major medical center.

DESIGN

A descriptive qualitative case study design was used in the study. The descriptive qualitative case study design was ideal because the study followed the essential elements of research, such as research questions, validity and reliability (Rowley, 2002).

SETTING

The location of the division of the major medical center identified for the case study was in a borough of New York City. The population for the study was employees of the major medical center in New York, New York.

METHODOLOGY

The descriptive qualitative case study design and research method included content analysis to explore the phenomena of the perceptions of healthcare professionals concerning EMR use (Curry, Nembhard & Bradley, 2009). A description of the 16 healthcare professionals' perceptions of EMR use emerged by adopting the unified theory of acceptance and use of technology (UTAUT) model (Venkatesh, Thong and Xu, 2012) and NVivo 10 computer software to aid with the analysis of semi-structured, recorded and transcribed interviews.

RESULTS

The study findings highlighted the challenges in transitioning from paper records to EMR, despite the many benefits and potential improvement in healthcare. Themes emerging from the analysis appeared in five categories: (a) Experience of healthcare professionals with a subtheme of workflow, (b) Challenges in transition from paper to EMR, (c) Barriers to EMR acceptance, with a subtheme of privacy, confidentiality and security, (d) Leadership support, and (d) Success of EMR. See Figure 1.

CONCLUSION

The findings of this case study may inform healthcare industry decision makers of additional social and behavioral factors needed for successful EMR strategic planning, implementation and maintenance. Various concepts identified in the UTUAT model supported the study's findings. These findings supported literature on the benefits of EMR as an empowering tool enabling healthcare organizations to engage in further robust performance improvement methods. The findings have several significant implications, both for

researchers and for healthcare leaders in developing strategies to encourage consistent use of EMR among healthcare professionals regarding workflow efficiency in providing patient care.

FIGURE 1: EMERGENT AND MAJOR THEMES
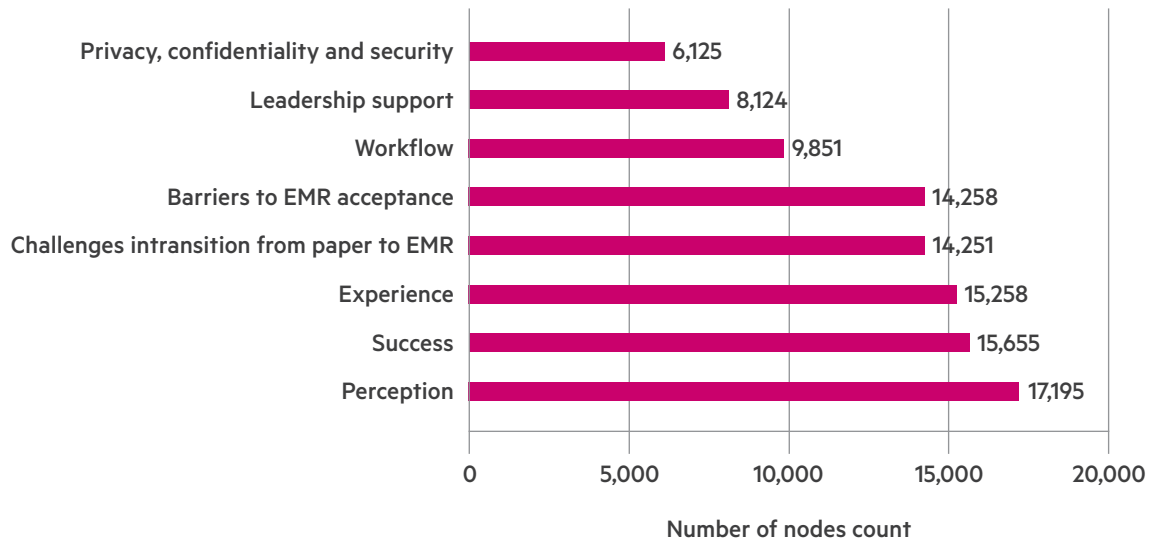
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2. NUTRITIONAL COMPOSITION OF THE HUMAN PLACENTA

Category: Research
IRB Number: Exempt Status Granted
Authors: Laura Lodico, BSN, RN; Sydney Chang, MD; Zev Williams, MD, PhD

INTRODUCTION

Remarkably little is known about the basic nutritional composition of the human placenta, despite the increasing popularity of postpartum placentophagy in Western culture. Placentophagy is the consumption of any of the afterbirth contents, including placenta, amniotic fluid and any associated membranes. However, we are only talking about placenta consumption, as that is what is most common. Possibly due to the lack of research, Western healthcare has not embraced it as a benefit, although many doulas and midwives promote the practice, and most hospitals will allow the mother to take the placenta home after birth if desired.

PURPOSE

This information is crucial in understanding the composition of the human placenta, helping providers answer basic questions regarding placentophagy, and allowing patients to make informed decisions regarding whether or not to participate in this practice.

DESIGN

Placentas (n = 10) from "normal healthy pregnancies" were collected immediately at the time of delivery from subjects (n = 10) between 39 weeks and 0 days and 40 weeks and 6 days' gestational age.

SETTING

A single large academic medical institution over a period of five days.

METHODOLOGY

Blood was drained from the placentas, and they were washed in cold water. Full thickness sections were separated from the chorionic plate, placed in an ice bath, cut into 1- to 2-cm sections and placed in an agitated ice bath until blanched to remove any visible blood. They were then snap-frozen, wrapped in tin foil and stored at –80°C. While still frozen, 35 g placenta samples from all 10 placentas were combined and homogenized using a high-speed blender. The homogenized material was then analyzed by a food science lab.

RESULTS

We analyzed the carbohydrate, sugar, protein, cholesterol, vitamin and heavy metal composition from a pooled collection of healthy placentas from uncomplicated deliveries. We found 100 grams of placenta to contain 52 calories, 0.45 percent carbohydrates, 199.7 mg of cholesterol, 10.64 percent protein, 33 IU vitamin A, 1230 ppm calcium, 59.4 ppm iron, 1140 ppm sodium, 0.58 percent saturated fat, 0.01 percent trans fat, 0.01 percent omega 3 fat, 0.81 percent total fat, and <1.0 percent fructose, glucose, sucrose, maltose and lactose. Levels of arsenic were <10 ppb, cadmium <5 ppb, lead <5 ppb and mercury <5 ppb. Selenium was present at 198 ppb selenium in a 100 g sample. The moisture content of the composite sample was 87 percent. We found that the human placenta contains a significant amount of cholesterol, protein, iron and selenium but no detectable levels of cadmium, arsenic and mercury.

CONCLUSION

The small sample size, and use of placentas from only healthy pregnancies, makes it unclear if there are differences among subgroups. There are also many other environmental toxins that have not yet been tested for. The purported benefits of placentophagy include preventing postpartum depression, increasing breast milk supply, restoring nutrients and speeding recovery.

Whether these benefits are due to other hormones and biologically active molecules not present in other foods has yet to be determined.

The human placenta contains significant amounts of selenium, a trace element that is nutritionally essential for humans, and that plays critical roles in reproduction, thyroid hormone metabolism, DNA synthesis and protection from oxidative damage and infection. The findings from this study will help nurses have a more educated discussion with their patients around this increasingly popular practice and will begin to answer questions regarding safety and benefits. However, much more research needs to be done before any conclusions are made.

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Nutrition Facts	
Serving Size 1 Placenta (450g)	

Amount Per Serving	
Calories 234	Calories from Fat 33

	% Daily Values*
Total Fat 4g	6%
Saturated Fat 3g	15%
Trans Fat 0g	
Cholesterol 899mg	300%
Sodium 513mg	21%
Total Carbohydrate 2g	1%
Dietary Fiber 0g	0%
Sugars 0g	
Protein 48g	96%

Vitamin A 3%	●		Calcium 55%
Iron 149%	●		Selenium 127%

*Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

		Calories	2,000	2,500
Total Fat	Less than		65g	80g
Sat Fat	Less than		20g	25g
Cholesterol	Less than		300mg	300mg
Sodium	Less than		2400mg	2400mg
Total Carbohydrate			300g	375g
Dietary Fiber			25g	30g

3. NURSE LEADER ROUNDS: EFFECT ON NURSE-RELATED PATIENT SATISFACTION SCORES ON TWO POST-SURGICAL UNITS IN AN ACUTE CARE FACILITY

Category: Research
IRB Number: Exempt Status Granted
Author: Angela Babaev, DNP, CNS, RN

INTRODUCTION

The best possible inpatient experience is a priority for many hospitals in today's model of healthcare delivery. Achieving and sustaining measurable success is a key challenge. Use of nurse leader rounds (NLR) has been revealed to be an effective improvement strategy in some hospitals.

PURPOSE

The purpose of this project was to analyze the impact of implementing daily NLR on patient satisfaction (PS) scores in two postsurgical units at a large urban acute care hospital in metropolitan New York.

SETTING

Two postsurgical units at a large urban acute care hospital in metropolitan New York.

DESIGN AND METHODOLOGY

This study used descriptive comparison to analyze existing survey data before and after NLR was implemented. The study took place in an academic, urban, tertiary care hospital in two postsurgical units. Data were collected using the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey reflecting questions to measure patients' perceptions of care, specifically assessing nurse-related communications to examine if there was a relationship between NLR and PS scores.

RESULTS

Patient perception data summarized in this study suggested that the implementation of NLR was associated with increased levels of patient satisfaction with communication (SC) with nurses following NLR in the inpatient setting on two postsurgical units. The results indicated significant differences between the pre- and post-scores of SC in nurse-related questions referring to communication.

CONCLUSION

Effective implementation of NLR can improve patient perception of care. Improvements in nurse communication impacted PS. Areas for improvement focused on patient self-management of care and medication education.

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4. HEALTH INFORMATICS SECURITY AND PRIVACY: A SOCIAL SCIENCE EXPLORATION OF NURSES' KNOWLEDGE AND RISK BEHAVIORS WITH SECURITY AND PRIVACY FOCUSING ON THE USE OF MOBILE DEVICES

Category: Research
IRB Number: 11230509-0315
Author: Keith Richard Weiner, RN, MSc

INTRODUCTION

The electronic health record (EHR) is nearly omnipresent in hospitals in the United States through incentives and penalties stemming from the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 as part of the American Recovery and Reinvestment Act (ARRA). The inequity of the EHR has led to an increased risk of patient information breaches as an unintended consequence. Two of the most common causes of breaches are employee and third-party mistakes. Nurses comprise the largest segment of the healthcare workforce. This study examines nurse risk behaviors, information system security knowledge and concern for information privacy. The focus is on the use of mobile devices, an imminent standard for mainstream EHR usage.

PURPOSE

This study's purpose is the exploration of information systems risk behaviors of new nurses one year from graduation in their use of portable electronic devices.

DESIGN

The survey collected data on demographic details, information systems security knowledge, appraisal of risk behaviors and information privacy protective responses. The demographic section blended SurveyMonkey®-certified items with population-specific interest items to inform the researcher. Aydin's fuzzy logic study of risk behaviors in Turkey served as inspiration for the risk behavior section, with updated specifications relevant to the population to be evaluated and reflective of more contemporary technology. The knowledge section was developed by the principal investigator with a panel of five expert jurors. The information privacy protective responses section used items modified from the Kuo study to evaluate the Concern for Information Privacy Index for the subjects' use of their protected health information. This collective instrument was evaluated by these same four subject matter experts and modified to suit the elicited feedback.

SETTING

The pilot study was conducted using a convenience sample of 167 Molloy College senior nursing students.

METHODOLOGY

The paper surveys were distributed by two Molloy College professors. Three $25 Amazon gift cards were offered via a raffle, and participation in whole or in part was not deemed to be a requirement for entry into the raffle. Students were instructed that their responses were to be kept anonymous, and no identifiable data was requested. Students were permitted to abstain from part of or even all of the survey responses. Students submitted the paper responses to the professors, who collected and delivered the responses to the study investigators for evaluation.

RESULTS

The purpose of the analysis was to perform instrument validity and reliability. On the 20-item section on risk behaviors, a Cronbach's alpha of .713 was achieved. The Concern for Information Privacy Index and four of the five subscales each achieved a Cronbach's alpha greater than .8. The Information Privacy Protective Response subscale received the least, with an accepted Cronbach's alpha of .704.

CONCLUSION

The instrument components and subscales were confirmed to be an accurate measurement tool through the vetting of an expert judge panel, along with the subsequent reliability and validity analysis of a pilot study. A subsequent nationwide study of Registered Nurses one year from graduation will be conducted using the National Student Nurse Association membership database. The intention is to evaluate associations between the Concern for Information Privacy Index, its subscales, information security knowledge and risk behaviors. Data collection is in progress, and analysis of initial results will be presented during the symposium.

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5. THE LIVED EXPERIENCE OF SENIOR NURSES WORKING WITH HEALTH INFORMATION TECHNOLOGY IN THEIR DAILY PRACTICE

Category: Research
IRB Number: 2013-2477
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INTRODUCTION

Stakeholders in healthcare face major challenges in their mission to provide safe, efficient, timely and affordable healthcare services, in an environment of increasing regulation, direct competition and increasing cost. The mandate for quality healthcare services is rooted in the paradigm of health information technology (HIT). Senior nurses represent a major part of the workforce within the healthcare industry. Hence, there is a need for studies to determine not only how senior nurses view and experience HIT in their daily practice, but also how they might adapt to their increasing role of meeting healthcare goals. It is believed that the success of health information technology is grounded in the attitudes, perceptions and beliefs that senior nurses create in the workplace. This notion supports the indication that their involvement should be explored through investigative research.

PURPOSE

The purpose of this phenomenological study was to examine the lived experience of senior registered nurses working with health information technology in their daily practice.

DESIGN

Phenomenological qualitative design was used to explore the lived experience of senior nurses working with health information technology in their daily practice.

SETTING

The research was carried out on a medical surgical unit at an acute care, not-for-profit, integrated, comprehensive academic medical center in New York City.

METHODOLOGY

A purposive sample of seven medical surgical nurses with the same job descriptions, and working in the same inpatient unit, participated in the study. The participants were graduates from registered nursing programs, were using HIT in their practice, and had been practicing for more than 15 years at the facility. Qualitative data was collected through open-ended interview questions. A phenomenological approach was used in the collection of the information.

RESULTS

Common themes emerged from the senior nurses' perceptions, beliefs and interactions. The results revealed that senior nurses preferred electronic health records to paper charts and were comfortable with the technology. The participants thought that although HIT enabled senior nurses to provide safer care, the technology also decreased the quality of care.

The nurses reported that using HIT enhanced nursing work through helpful alert screens, increased information access, improved organization and efficiency. The nurses believed that the use of HIT hindered nursing work through decreased interdisciplinary communication and a high demand on work time. They also disclosed issues of user friendliness, computer malfunctions and technological delays.

CONCLUSION

The findings provide healthcare organizations with information, which can help us gain insight into senior nurses' feelings, perceptions and beliefs relative to the use of HIT. Training and support were expressed as means of effective implementation.

Administrative implications include: involving bedside nurses in choosing the system, streamlining processes, developing guidelines for documentation, increasing system speed, choosing hardware that encourages user friendliness, improving technological support and monitoring the system's use in the early stages of implementation.

It is recommended that continued research be done to explore the senior nurses' acceptance of HIT using other research methodologies.

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6. A PATIENT-CENTERED APPROACH TO IDENTIFY BARRIERS TO OUTPATIENT CLINIC ATTENDANCE IN AN URBAN POPULATION OF ADULTS WITH SICKLE CELL DISEASE

Category: Quality Improvement
Authors: Lauren Mariotti, LMSW; Yonati Haymov, BA; Cassandra Dobson, PhD, MS, RN-BC, PHc; Caterina P. Minniti, MD

INTRODUCTION

Extensive data on healthcare utilization in populations with chronic illness, specifically in patients with sickle cell disease (SCD), has demonstrated poor adherence to outpatient visits. As a result, medical care for adult SCD patients is often fragmented and not optimized.

PURPOSE

This study was designed to examine barriers to outpatient clinic attendance from a patient perspective.

SETTING AND METHODOLOGY

Adult patients with SCD (HbSS, HbSC, HBSβ^0 and β$^+$) were surveyed over two months at an urban outpatient clinic in New York. A short questionnaire was developed to identify patient- and institution-specific barriers to clinic attendance. Data were collected by conducting phone calls within one week of a patient's missed appointment.

RESULTS

We made a total of 208 patient outreach phone calls to 140 patients (patient response: N = 84, ~60 percent). Forty-seven of our respondents were females; 37 were males (mean age 34.6, with a range of 22 to 72). The main reasons for not reaching patients were that patients were not answering the phone (47 percent) or the phone number was out of service (12 percent). Reasons for non-attendance to appointments included: prior commitment (29 percent), hospitalization (20 percent), forgetting (19 percent), cancellation/rescheduling (12 percent), not feeling well (7 percent), not aware of the appointment (4 percent), conflicting work schedules (4 percent), disinterest in attending clinic (2 percent), inadequate transportation (1 percent) and weather (1 percent). Fifty patients were contacted more than once because they had missed two or more appointments (range 2–5) within the study period. This subset included 24 males and 26 females (mean age 33.7 years).

CONCLUSION

Data showed that patients with SCD who miss appointments do so because they prioritize other commitments, or forget more than half of the time. Concurrent hospitalizations accounted for 20 percent of missed appointments; this was confirmed by cross-referencing inpatient census with outpatient schedule. Transportation difficulties and hours of operation were not identified as barriers to attendance among the sample reached, suggesting that access to care is not the main reason for poor outpatient clinic adherence. The optimal modality to reach patients is not clear, as almost half of the phone calls did not connect with an individual. Alternative modalities such as the use of social media are being investigated. The high rates of young adults who missed two or more appointments suggest that this population may benefit from transitional programs.

Recently, a comprehensive transition program was instituted, and it is anticipated that patient engagement may improve. Further research is needed to explore if patient-related barriers have a neurocognitive organic origin or if they are related to psychosocial or behavioral issues.

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7. EQUITABLE OBSTETRICAL CARE FOR THE LESBIAN, GAY, BISEXUAL AND TRANSGENDER COMMUNITY

Category: Research
IRB Number: 12-05-13-0175573
Author: Chinazo Echezona-Johnson, EdD, LLB, MSN, PCC, RNC-MNN

INTRODUCTION

Researchers have indicated that lesbian, gay, bisexual and transgender (LGBT) patients are not always satisfied with their healthcare experiences due to the limited training received by nursing professionals on LGBT issues.

PURPOSE

Using critical theory principles, the purpose of the study was to examine how the LGBT population is represented and portrayed in mainstream obstetrical nursing courses, curricula, textbook and syllabi.

DESIGN

This study employed a qualitative, intrinsic case study research method.

SETTING

The guiding research question was to explore how nursing schools within a metropolitan city in the Northeast that offer an associate degree in nursing incorporate healthcare topics in their obstetrical nursing education that relate to the LGBT population.

METHODOLOGY

Qualitative data were collected via document reviews and unstructured interviews with open-ended questions. The data were analyzed by theme analysis and constant comparison, including coded data from individual interviews and document analysis.

RESULTS

These data showed that currently, there is minimal to absent LGBT content in obstetrical nursing curricula in associate degree nursing schools. Results indicated that nursing faculty are not knowledgeable about LGBT obstetrical health issues and lack the knowledge of how to incorporate LGBT issues into the curriculum.

CONCLUSION

The results of this research study indicate that associate degree nursing schools should strive to review how well they are training their students to competently provide services to LGBT people in obstetrical settings. The obstetrical curriculum and textbook have low frequency and adverse materials about LGBT topics. The obstetrical faculty inconsistently address or incorporate these issues in their didactic and clinical curriculums.

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8. LESSONS LEARNED FROM A MULTIDISCIPLINARY TEAM COLLABORATION IDENTIFYING OPPORTUNITIES TO IMPROVE NURSING CARE FOR ADVANCED-STAGE PRESSURE ULCER

Category: Quality Improvement

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INTRODUCTION

Pressure ulcers (PUs) are a common condition in hospitalized patients. PUs contribute to the patient's acuity level and nursing care. PUs also place patients at risk for adverse events such as infections, multidrug-resistant organisms (MDRO), *C. difficile* and readmission. An internal analysis for PU rates from 2007 revealed that 14 percent of patients at the Moses Campus on medical floors had pressure ulcers, 47 percent of which were classified as advanced stage (AS). The National Pressure Ulcer Advisory Panel (NPUAP) classifies ASPUs as stage III, IV and unstageable or suspected deep tissue injury (SDTI). There is limited literature describing the characterization of process and outcome measures for community-acquired ASPUs.

PURPOSE

In the setting of a larger study to describe process and outcomes for patients with ASPUs present on admission, we sought to establish a baseline and identify opportunities for future quality improvement (QI) for nursing.

DESIGN

A retrospective cohort study was performed in collaboration with members from Nursing, the Wound Care (WC) Service, Infectious Disease and the Antibiotic Stewardship Program.

SETTING

Montefiore Health System, a multi-campus academic medical center with more than 1,600 licensed beds. Adult patients hospitalized in 2014 were included from three acute care hospitals and one rehabilitation center.

METHODOLOGY

Data from internal clinical and administrative databases was abstracted for demographics (including comorbidities), ulcer staging, risk exposures, care processes and outcome measures. Concordance of ASPU documentation was assessed for a subset that had both nursing documentation and a formal WC consultation. The results were analyzed using SAS version 9.4 software. Our internal data was based on analysis of 4,468 inpatients on medical floors at the Moses Campus, admitted in 2007, with ICD-9 code for pressure ulcer (707.0x).

RESULTS

We identified 1,501 ASPU patients. The cohort had more females (58 percent), was older (median age 73 years) and had multiple comorbidities (as measured by Charlson comorbidity index median = 6, five-year survival = 0). The most frequent admission diagnosis was altered mental status (20 percent). ASPU documentation was varied (e.g., inconsistency in stage naming, area body and provider type). In the subgroup of 296 patients that had both nursing and WC formal consultation, less than half had consistent documentation of staging between these two groups (see table). Physician documentation was missing or lacked detail in many instances. More than 90 percent of patients received antibiotics (most receiving multiple courses). Patients had several complications, including 60 (3.99 percent) with MDRO pathogens, and 163 (10.9 percent) with *C. difficile*.

CONCLUSION/LESSONS LEARNED

Our descriptive baseline study suggests that Montefiore ASPU patients have multiple comorbidities and are a population at very high risk of complications. It also highlights the complexity in staging and documentation of pressure ulcers. These findings highlight the need to offer potential educational opportunities with regard to electronic medical record documentation for nursing and our multidisciplinary Montefiore partners.

COMPARISON DOCUMENTATION FOR ASPU COMPARING NURSING TO WOUND CARE SERVICE (*N* = 296*)

Consistent documentation	Ulcer staging				
	SDTI	**Stage 3**	**Stage 4**	**Unstageable**	**Grand total**
Yes	45 (15.20%)	8 (2.70%)	45 (15.20%)	30 (10.14%)	128 (43.24%)
No	72 (24.32%)	31 (10.47%)	8 (2.70%)	55 (18.58%)	166 (56.08%)
UTD	2 (0.68%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	2 (0.68%)
Grand total	**119 (40.20%)**	**39 (13.18%)**	**53 (17.91%)**	**85 (28.72%)**	**296 (100.00%)**

*These 296 patients had nursing documentation and an official wound care service consultation.

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9. BARRIERS THAT PREVENT ADOLESCENTS WITH SICKLE CELL DISEASE FROM BEING COMPLIANT WITH HYDROXYUREA: A SYSTEMATIC REVIEW

Category: Evidence-Based Practice
Authors: Uchechukwu Imegi, DNP, RN; Cassandra Dobson, PhD, MS, RN-BC, PHc

INTRODUCTION

Sickle cell disease (SCD), a blood disorder that is inherited from both parents, affects millions of people globally. The associated pain crisis and other numerous signs and symptoms are crippling and debilitating, posing big challenges for both patients and the health team. Hydroxyurea (HU), the only FDA-approved treatment for SCD in adults/adolescents, is reportedly effective and beneficial, yet the usage is still minimal among SCD patients.

PURPOSE

The purpose of this systematic review was to identify and evaluate available evidence on barriers that are preventing SCD patients from adhering to HU therapy.
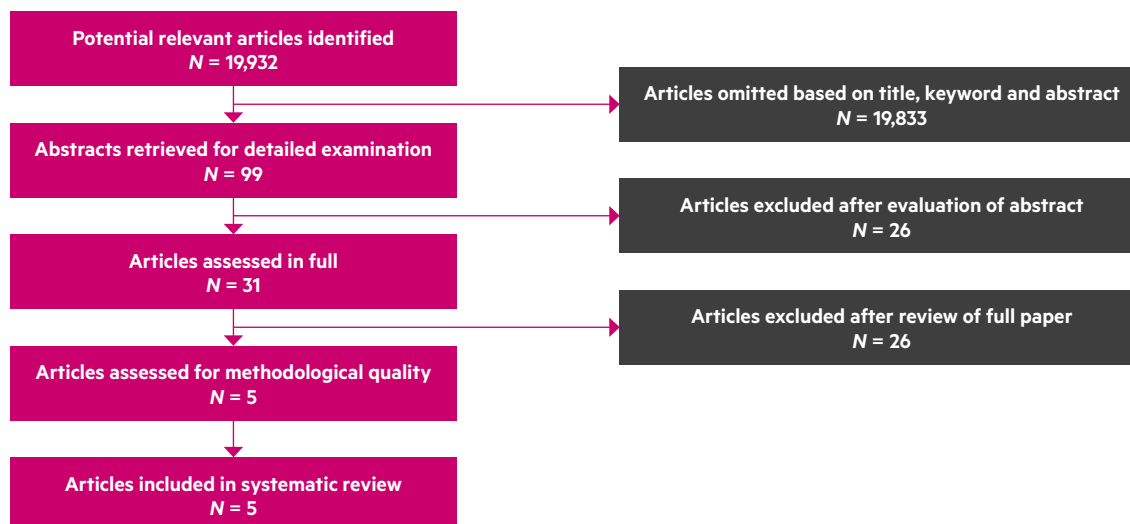
DESIGN

Systematic Review

METHODOLOGY

A systematic and comprehensive search for evidence was performed using the search engines of CINAHL, MEDLINE, OVID, Academic Search Premier, and Cochrane's Database of Clinical Trials and Database of Systematic Reviews from 2003 to 2013. This time period covered 10 years of relevant literature on the topic, and only articles published in English were identified. The following search terms or combination of words were used: *hydroxyurea, sickle cell disease, sickle cell disease* AND *hydroxyurea therapy, sickle cell crisis* AND h*ydroxyurea, barriers to hydroxyurea therapy* AND *sickle cell disease, sickle cell management* AND *hydroxyurea*. The text words contained in the title and abstract, as well as in the index terms used for the description of the article, were analyzed. Using all identified keywords and index terms, a second search was done across all databases. All studies that met inclusion criteria were retrieved for review and analysis. The Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) Rating Scales were used to determine the level of evidence available to support the question being posed in this review.

TABLE 1: INCLUSION/EXCLUSION CRITERIA

Potential relevant articles identified
N = 19,932

Articles omitted based on title, keyword and abstract
N = 19,833

Abstracts retrieved for detailed examination
N = 99

Articles excluded after evaluation of abstract
N = 26

Articles assessed in full
N = 31

Articles excluded after review of full paper
N = 26

Articles assessed for methodological quality
N = 5

Articles included in systematic review
N = 5

CONCLUSION

The implications for social change for SCD patients, parents/guardians and care providers include increasing overall access to HU, improving health-related quality of life, motivating patients to be engaged in their own healthcare management, decreasing painful episodes and emergency room visits, as well as reducing patient mortality and morbidity.

The recommendation for evidence-based practice will be dependent on the review of the evidence. Thus far the evidence, supported by the hypotheses from research studies at levels 2, 3 and 4, has shown that lack of education, fear of the unknown, and fear of the known are contributing factors in the decreased use of HU. Further research needs to be done to identify why gaps exist in the use of a promising drug for SCD.

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10. THE MAGIC AND MISERY OF TELEMETRY...AT END OF LIFE

Category: Evidence-Based Practice
Author: Mintie Indar-Maraj, EdDc, RN, BC

INTRODUCTION

Telemetry and intensive care unit (ICU) beds are in great demand, limited in number, and costly, and their use must be evidence-based (Crawford and Halm, 2016). So, who gets a bed? When patients are critically ill, the prognosis is grim, the outcome futile, and the family wants everything done, where does the patient go? Often, these patients end up on telemetry medical-surgical (med-surg) units and require inotropic and vasopressor agents as treatment for cardiovascular syndromes. This generates many questions for the both the nurse and the patient. For instance, what is the patient-to-nurse ratio? How frequently must the nurse assess the patient? In the ICU, the ratio is 1:2 or 3, versus the medical-surgical setting, which is 1:6 or more; assessment in the ICU is hourly, while the telemetry med-surg unit assesses every two to four hours. According to Overgaard and Dzavik (2016), there is very little evidence on the clinical efficacy of these agents. Thus, the purpose of this project is to explore the literature for evidence on the administration of these agents on the telemetry med-surg unit, what the nurse-to-patient ratio is, what assessment is warranted, and how frequently assessment should be done.

PURPOSE

The purpose of this evidence-based practice project is to explore the literature for evidence on the administration of inotropic and vasopressor agents as treatment for cardiovascular syndromes on the telemetry med-surg unit, what the nurse-to-patient ratio is, what assessment is warranted, and how frequently assessment should be done.

SETTING

A 30-bed telemetry medical-surgical unit within an acute care urban teaching hospital. There are 400-plus beds with multiple care settings. The population is diverse in terms or ethnicity, age, gender and geographic location. The care team includes physicians, residents/fellows, nurses and ancillary staff.

DESIGN/METHODOLOGY

The clinical question is: "For adult patients admitted to telemetry medical-surgical units with terminal illness requiring vasopressors/inotropes, what is the nurse-to-patient ratio, assessment and frequency?" The IOWA Model of Evidence-Based Practice will be used.

Problem-focused trigger: an adult patient with hypotension; DNR/DNI; spouse wanted everything to be done; patient had EKG changes on Levophed; ordered for Neosynephrine; no competency; no change in staffing ratio; no guideline from administration on assessment and frequency.

The literature review was conducted according to the PICO model:

- **P (Problem/Population/Patient) =** Adults, 18 years and older, who are DNR/DNI and needed vasopressor/s
- **I (Intervention) =** Titration vs. no titration (capped); frequency of assessment
- **C (Comparison) =** Question is about an issue of interest/s; no titration on med-surg and assessment every four hours (med-surg setting) compared with ICU, titration and more frequent monitoring
- **O (Outcome) =** Expected outcome: Which vasopressors can be administered safely on telemetry units? What is the nurse-to-patient ratio? What assessment is needed and how frequently?

1. **Search strategy:** Searched electronic databases: PubMed, Cochrane, CINAHL
2. **Inclusion criteria:** Human, English, randomized controlled trial, meta-analysis, case reports, popular literature, literature reviews, adults, DNR/DNI, medical-surgical, intensive care unit, vasopressors

3. **Exclusion criteria:** No abstract present, abstract without manuscript, animal studies
4. **Evidence appraisal:** Articles were reviewed, levels classified according to the John Hopkins Nursing Evidence-Based Practice (EBP) Tool

RESULTS

A total of 287 articles resulted from the initial search. Out of these, eight articles met inclusion criteria and were selected for final review. Seven articles were systematic reviews, randomized controlled trial and meta-analysis, and there was one expert opinion article. The John Hopkins Nursing Evidence-Based Practice Tool was used to appraise the evidence.

After review categorization:

- Outcomes comparing vasopressor to placebo
- Outcomes comparing vasopressin to other vasoactive drugs, alone or combination with epinephrine or Neosynephrine, or oral Midodrine
- Outcomes comparing high doses of drug therapy to standard dosing

Summary of findings:

- Setting for vasoactive drugs—ICU/Stepdown
- Wide variability on outcomes, survival and mortality
- Monitoring—ICU, arterial pressure, frequent monitoring of blood pressure
- Limited data on assessment frequency in medical-surgical units, DNR/DNI requiring vasopressors and patient-to-nurse ratio

Recommendation: Current practice—expert opinion; need for research in this area.

CONCLUSION

ICU beds are limited, and telemetry med-surg is where those patients who do not meet the criteria for ICU care are admitted. Although these drugs continue to be administered in the med-surg setting, the nurses are challenged to perform the frequency of assessment as would be done in the ICU and still care for five to six other patients. Thus, it appears that there are limited issues with caring for these patients safely, except for consensus on the patient-to-nurse ratio and how frequently the med-surg nurse should monitor the vital signs. There is a gap in the research on (a) the use of vasopressors in the medical-surgical settings for patients who signed DNR/DNI, (b) the frequency of assessment and (c) the patient-to-nurse ratio.

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11. BREAKING DOWN SILOS: INCORPORATING INTERPROFESSIONAL EDUCATION TO PROMOTE SAFE ADMINISTRATION OF CYTOTOXIC AGENTS

Category: Quality Improvement
Authors: Susan Sakalian, MS, RN, OCN; Carol Sheridan, MSN, RN, OCN

INTRODUCTION

The World Health Organization defines interprofessional education (IPE) as occurring when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes. The Institute of Medicine has also identified IPE as an important strategy necessary to improve healthcare outcomes through safe and effective delivery of care. Traditionally, healthcare providers have been educated in silos. This approach typically does not incorporate role recognition of other disciplines within the healthcare team, and could create a barrier to teamwork and collaboration.

PURPOSE

A two-day didactic course is required for all RNs who are new to oncology or have no prior experience administering antineoplastic agents. At Montefiore, a major academic medical center, an opportunity was identified to incorporate IPE in the training of registered nurses (RNs), nurse practitioners (NPs) and physician assistants (PAs) in the guidelines for chemotherapy and biotherapy administration. The purpose of this initiative was to help foster an understanding of the role each member of the healthcare team has in the process of chemotherapy and biotherapy administration. This endeavor also sought to cultivate collaborative practice and ensure a team approach to safe patient care.

DESIGN

An invitation to join the RN chemotherapy guidelines course was offered to PAs and NPs who had limited oncology experience. The impact of IPE was evaluated utilizing an anonymous Likert-type questionnaire. The questionnaire was administered immediately post completion of the two-day program. Questions focused on participants' perceptions of the impact of IPE on their understanding of colleagues' role responsibilities, patient and staff satisfaction, and teamwork and collaboration.

SETTING

The courses were taught by a faculty comprising advanced practice nurses and a PharmD specializing in oncology. Participants in the IPE group were divided randomly into teams consisting of a variety of roles.

METHODOLOGY

Participants who were enrolled in the two separate chemotherapy-biotherapy guidelines courses completed the survey. One group consisted of 11 RNs, NPs and PAs. The comparison group was an RN-only group consisting of 10 participants.

RESULTS

	Years of service	RN-only participants	IPE participants
Question #1	**0–1**	0	4
	1–3	2	3
	3–5	0	0
	>5	8	4
Question #2	**Previous IPE course?**	Yes = 7 | No = 3	Yes = 7 | No = 4
Question #3	**If yes, give details.**	▪ BLS course ▪ NCCN meeting	▪ Palliative care seminar ▪ CME pharma class ▪ Breast cancer conference

On a scale of "strongly disagree" to "strongly agree," rate the following:

Question #4, Increased understanding of my role

Question #5, Increased understanding of colleagues' role

Question #6, Believe all disciplines should have same knowledge base

Question #7, IPE has a positive impact on patient satisfaction

Question #8, IPE has a positive impact on staff satisfaction

Question #9, IPE has positive impact on team communication

Question #10, IPE has positive impact on collaboration

Question #11, Will likely take an IPE course in the future

RN ONLY *N* = 10

IPE PATICIPANTS *N* = 11
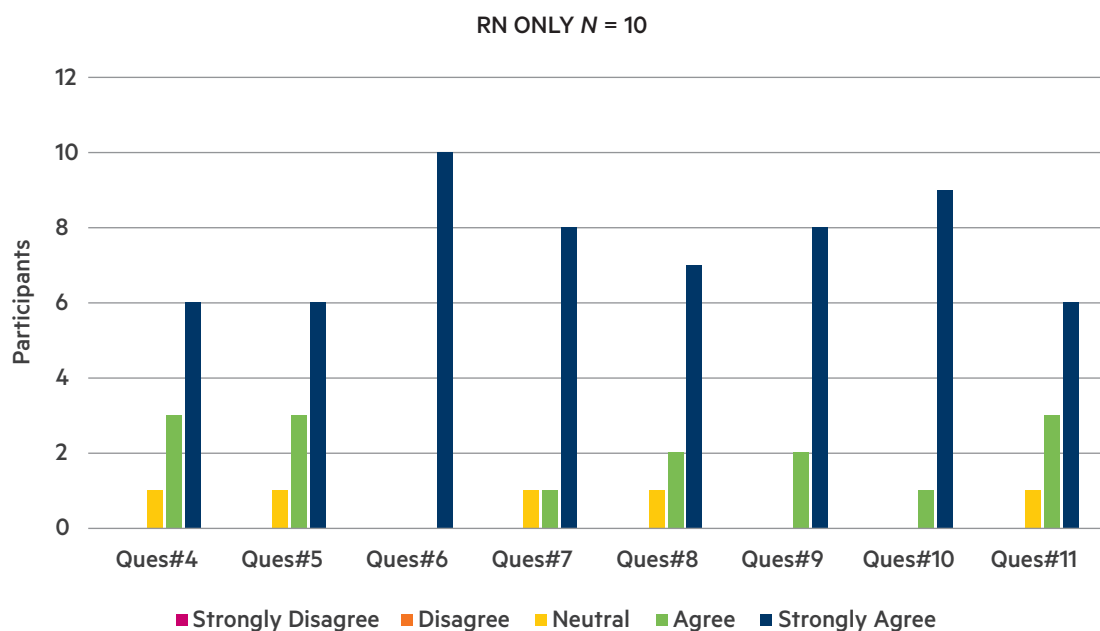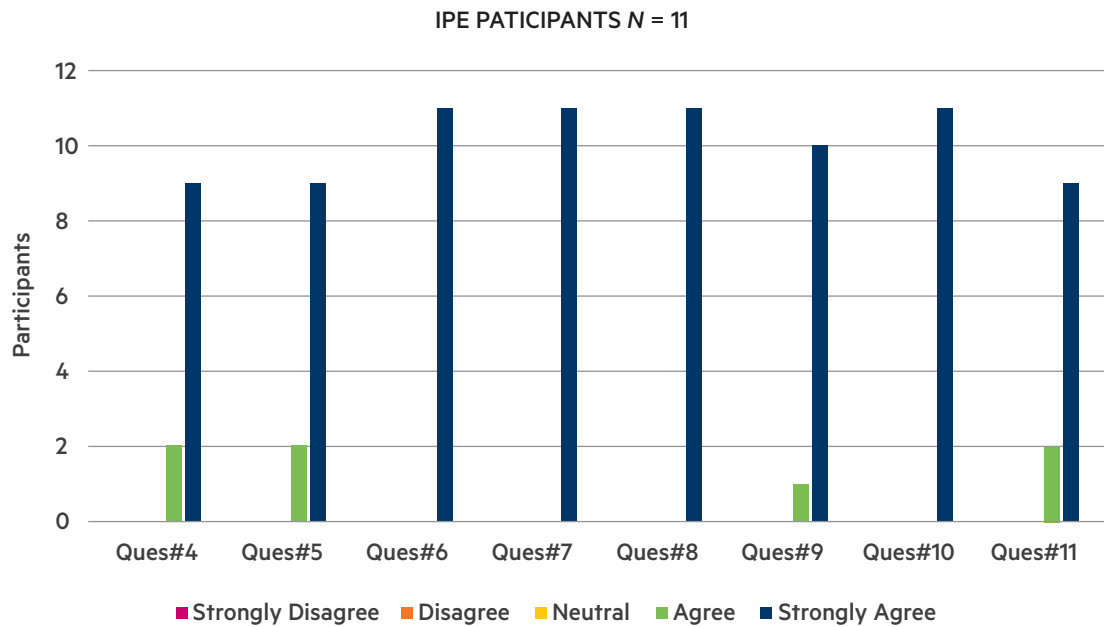
CONCLUSION

IPE offers an opportunity for team building, mutual goal setting and a collaborative approach to safe administration of chemotherapy.

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12. MULTIDISCIPLINARY SHOCK TEAM IN THE TREATMENT OF CARDIOGENIC SHOCK DURING ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION (STEMI) CASES

Category: Quality Improvement
Authors: David Slovut, MD; Mark Menegus MD; Chetram Ramkaran, RN-BSN; Zelalem Argaw, RN-BSN

INTRODUCTION

Someone experiences a heart attack every 43 seconds, and one in five heart attacks are silent. Though they may be silent, severe damage can occur (Mazaffarian, Benjamin & Go, 2015). Heart attack is the main cause of cardiogenic shock. Cardiogenic shock, also known as pump failure, happens when the heart is unable to pump enough blood to satisfy the needs of the body. In the current management of cardiogenic shock during an ST elevation myocardial infarction (STEMI), the interventionist manages both the revascularization aspect of the care as well as the shock part of the treatment. This type of care brings about great loads of stress on the interventionist, and the latter has to manage cardiogenic shock while revascularizing the clogged artery. This type of management leads to poor outcomes, including increased mortality and morbidity. Thus, forming and implementing a "shock team" to act in an emergent situation of cardiogenic shock is essential in managing shock situations effectively.

PURPOSE

The purpose of this quality improvement (QI) project is to a shock team in the cardiac catheterization lab for effective management of intra-lab cardiogenic shock and continuity of care from revascularization in the cardiac catheterization lab to transfer in the coronary intensive care unit.

SETTING

Cardiac catheterization laboratory, in an acute care academic center in an urban area (431-bed teaching hospital). On average, we see 12 patients with STEMI per month; three to four of these patients typically develop cardiogenic shock.

DESIGN AND METHODOLOGY

The Plan-Do-Check-Act (PDCA) model for carrying out change or improvements was used as a framework for this project.

Plan:

- Collaborate with vascular interventionists, cath lab RNs, critical care attending, critical care RN, CV anesthesiologists, respiratory therpists and so on.
- Form a shock team.
- Gather data on outcome of patients with cardiogenic shock for six months.
- Educate the team members on the purpose of the shock team, how to activate the shock team and to adequately respond to the call.
- Establish roles for team members during the cardiogenic shock activation:
  » The vascular interventionist will concentrate on the revascularization process.
  » The critical care attending together with the critical care RN will concentrate on treating the shock portion of the care (severe hypotension, tachycardia or bradycardia).
  » The respiratory therapist will manage airway protection (intubation and mechanical ventilation).
- Educate the team members on the purpose of the shock team, how to activate the shock team and to adequately respond to the call.
- Establish roles for team members during the cardiogenic shock activation:
  » The vascular interventionist will concentrate on the revascularization process.
  » The critical care attending together with the critical care RN will concentrate on treating the shock portion of the care (severe hypotension, tachycardia or bradycardia).

» The respiratory therapist will manage airway protection (intubation and mechanical ventilation).

■ Gather data on outcomes of patients with cardiogenic shock for six months.

Do:

■ Implement the shock team (in process).

Check:

■ Determine the current number of patients with cardiogenic shock and current mortality rate.

■ Monitor current patients with STEMI who develop cardiogenic shock and track their morbidity and mortality rate for a period of six months.

■ Compare current mortality rates with rates before the implementation of the shock team.

■ Monitor hospital length of stay (LOS), team surveys and hospital resources.

Act:

■ Implement planned actions.

■ Set up shock team.

■ Educate staff.

■ Acquire devices and medicine.

■ Upgrade current documentation tools and closely supervise productivity and efficiency of the program.

SETTING

Cardiac catheterization laboratory, in an acute care academic center in an urban area (431-bed teaching hospital). On average, we see 12 patients with STEMI per month; three to four of these patients typically develop cardiogenic shock.

RESULTS

Pending. The project is in progress and currently collecting data to measure patient outcomes for a period of six months post project implementation.

CONCLUSION

Better management of in-STEMI cardiogenic shock is expected. A better prognosis compared with actual statistics is anticipated, resulting in decreased length of stay and efficient usage of available manpower and equipment.

We continue to monitor the shock team response process and make the necessary improvements based on feedback from the team members, thereby improving the management of in-STEMI cardiogenic shock. We hope to achieve better patient outcomes compared with actual statistics that will decrease length of stay and increase efficient usage of available manpower and equipment.

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13. PREVENTION OF UNPLANNED EXTUBATION EVENTS IN THE NEONATAL INTENSIVE CARE UNIT: A QUALITY IMPROVEMENT INITIATIVE

Category: Quality Improvement
Authors: Suhas Nafday, MD; Rani Thekumparampil, MD; Jose Olivera, RRT-NPS; Zahava Cohen, RN, MSN, RNC-NIC

INTRODUCTION

Unplanned extubation is the dislodgement of an endotracheal tube (ETT) from the trachea without advance preparation by the medical team. Emergent, less controlled reintubation increases risks of airway injury or scarring, pulmonary injury from excessive ventilation, ventilator-assisted pneumonia (VAP) and nonpulmonary complications like intraventricular hemorrhage (IVH). The unplanned extubation event (UEE) rate is an intensive care unit (ICU) quality indicator.

PURPOSE

To reduce the UEE rate in the NICU to less than or equal to 1/1,000 ventilator days in a year (July 2014 to June 2015), from a baseline of 3.4/1,000 ventilator days.

SETTING

Level IV NICU of an urban teaching hospital with an average of 650 admissions a year and 135 ventilator days a month.

METHODOLOGY

Quality improvement (QI) methodology: the Plan-Do-Study-Act (PDSA) model; cycle duration of two months. We implemented brainstorming sessions with a multidisciplinary team including representatives from nursing, respiratory therapists, physicians and nurse practitioners, and we conducted educational sessions with care provider groups.

RESULTS

There was a 71 percent reduction in the UEE rate at the end of five PDSA cycles. At the end of the fifth PDSA cycle, the UEE rate was reduced by 50 percent during nights and 100 percent during days.

CONCLUSION/DISCUSSION

We found the drivers of change included: education regarding complications of UEE, standardization of the ETT fixation process, meticulous care during procedures involving infant movement, improvement in interdisciplinary communication, and transparency of performance measures.

We used the following process measures: creation of a UEE report sheet, changes to our electronic medical records (EMR) for reporting events, random audits of joint RN/RT checks of ETT security, and root cause analysis of each UEE within one to two days of occurrence, to identify remedial factors.

We also encountered the following barriers: resistance to culture change and the initial feeling that the project was punitive. These barriers were overcome through a multipronged approach with the interdisciplinary team and a stress on "systems change." The motto was "Our Baby, Our Tube!" As a result of our interventions, the attitude has changed from one of complacence and inevitability to UEE being a preventable adverse event.

Future recommendations include: maintain continued improvement and sustainability, and include the labor floor and transport in the project.

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14. EXPLORING NURSE BURNOUT IN THE INTENSIVE CARE SETTING: A REVIEW OF THE LITERATURE

Category: Evidence-Based Practice
Authors: Nadege Rihan, MA, RN; Shiyon Mathew, MA, RN; Marie I. Elias, MLS, AHIP

INTRODUCTION

Burnout affects nurses at various levels and settings, but is particularly prevalent among nurses in the intensive care setting due to high patient acuities, intense responsibilities, advanced technologies, involvement in morally distressing situations and challenging family crises (Epp, 2012). Work-related burnout is characterized by exhaustion, lack of excitement and inspiration, feelings of incompetence and isolation. Additional features include frustration or distress, and consequently reduced efficiency, absenteeism and increased number of medical errors in the workplace (Bakker, Le Blanc & Schaufeli, 2005).

There are three identified dimensions of burnout, namely emotional exhaustion, depersonalization and reduced personal accomplishment (Maslach, Jackson & Leiter, 1996). Higher levels of emotional exhaustion and depersonalization and lower levels of personal accomplishment were associated with the existence of burnout (Guntupalli, Wachtel, Mallampalli & Surani, 2014).

The consequences of burnout are grave, affecting employees, patients and the organization as a whole. Thus, it is of importance to examine the contributing factors of burnout in order to preserve a healthy workforce of critical care nurses.

PURPOSE

The objective of this literature review is to explore the contributing factors of burnout among nurses in the adult intensive care setting and to identify preventive strategies to minimize burnout.

SETTING

Adult intensive care unit (ICU).

METHODOLOGY

A literature search spanning from 2005 to 2016 was conducted using CINAHL, PsychInfo and PubMed. Search terms included burnout, critical care nurses, intensive care units, moral distress and fatigue. Using a combination of terms, the search in the aforementioned databases yielded a total of 198 articles. Original research studies and articles reporting on the incidence of burnout, contributing factors and how it affects nurses in the ICUs were identified. The references of relevant articles were examined to identify additional studies. Using inpatient critical and intensive care units as inclusion criteria and long-term care facilities, home care, medical surgical units and outpatient clinics as exclusion criteria, 13 peer-reviewed articles were selected for the final review.

RESULTS

Various studies over the years have identified the prevalence of burnout in intensive care nurses and pointed out contributing factors that increase the likelihood of experiencing burnout. These varying factors were organized into four broad categories such as chronic work stress, heavy work load, conflict with patients and coworkers, and work-life imbalances.

Work-stress-related factors such as shortage of staff, ethical dilemmas, lack of support from management, high expectations, working with complex technology, and long hours have been linked to burnout (Epp, 2012; Saini, Kaur & Das, 2011).

Burnout is also influenced by work-related factors such as the inability to choose days off, rapid patient turnover, engagement in complex end-of-life issues and limited decision latitude (Ilhan, Durukan, Taner, Maral & Bumin, 2007).

The quality of working relationships among coworkers, patients and families, such as poor nurse–physician relationships (Poncet et al., 2006) and balancing the complex care needs of patient and family, can be emotionally tolling, often leading to compassion fatigue (Epp, 2012). Work-life imbalances such as inadequate support systems and sleep have also been linked to burnout (Moss et al., 2016).

Organizational and social-psychological intervention programs were recommended to minimize burnout. Nurse managers play an imperative role in fostering a healthy work environment and preventing burnout in critical care nurses by being visible on the unit, making frequent rounds, recognizing staff accomplishments and promoting nursing perspectives in discussions with physicians and other members of the healthcare team (Epp, 2012). Organizing a "grief team" made up of trained nurses and chaplains, counselors and psychologists can also assist critical nurses in processing emotions, particularly after on-the-job stressors such as deaths (Epp, 2012).

Nurses must also recognize the important role they play in preventing burnout. Consciously engaging in self-care activities, personal and professional development such as joining in research groups, and stress management and communication workshops has been linked to decreased stress and burnout (Moss et al., 2016; Poncet et al., 2006).

CONCLUSION

The literature review indicated that burnout is common among nurses working in ICUs and is clinically similar to depression. Although it is not acknowledged as a definite mental health disorder, it is recognized as a health problem related to life management difficulty (International Statistical Classification of Diseases and Related Health Problems, 2015).

The causes and effects of burnout have been uncovered by earlier studies. However, research to examine the impact of preventive strategies is needed. Support programs, such as the Adler/Sheiner Programme, have been shown to minimize emotional distress among ICU nurses. Similar programs can be implemented to further evaluate the effectiveness on reducing burnout (Loiselle et al., 2012). A shortage of ICU caregivers is already predicted, and because of the high costs associated with training of the caregivers, much effort needs to be given to understand the depths of burnout and retain a healthy workforce (Merlani et al., 2011).

TABLE 1: REPORTED CONTRIBUTING FACTORS OF BURNOUT

Factors	Study
Chronic work stress	Bakker et al., 2005 Epp, 2012 Ilhan et al., 2007 Moss et al., 2016 Poncet et al., 2006 Zhang et al., 2014
Heavy workload	Ilhan et al., 2007 Moss et al., 2016 Poncet et al., 2006 Rochefort et al., 2010
Conflict with patients and coworkers	Guntupalli et al., 2014 Poncet et al., 2006
Work-life imbalance	Moss et al., 2016

Interventions	Description	Study
Organization interventions	Decrease long working hours	Ilhan et al., 2007
	Communications, regualr meeting with colleagues	Ilhan et al., 2007 Poncet et al., 2006 Loiselle, et al., 2012
	Leadership style	Bakker et al., 2005
	Teamwork	Bakker et al., 2005 Moss et al., 2016
	Shift/unit rotations	Guntupalli et al., 2014 Ilhan et al., 2007
Social-psychological interventions	Improving social work environment	Epp, 2012 Ilhan, et al., 2007 Rochefort et al., 2010
	Stress management training, relaxation techniques	Ilhan, et al., 2007 Moss et al., 2016

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15. ROUNDING MATTERS! MAKE IT PURPOSEFUL

Category: Quality Improvement
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INTRODUCTION

Purposeful hourly rounding is defined as "regular checks of individual patients, carried out by health professionals at set intervals, to proactively address the patients' needs rather than a response to a call bell" (Fitzsimmons, Bartley & Cornwell, 2011). Deitrick (2015) found that purposeful hourly rounding has had a positive impact on patient falls and satisfaction. This is of significant importance to the safety of our patients and the financial stability of our institution. Here at Weiler, during the period of January 1 to November 20, 2015, we had a total of 27 falls. For this reason, the patient care coordinators (PCC) at Weiler were asked to implement a rounding program that would reduce falls hospital-wide. The PCC group found that although hourly rounding was being done, there were inconsistencies in how it was occurring. The group determined that they needed to standardize the approach to hourly rounding. We did this through creation of a script to focus on the 4 P's (pain, potty, personal items and positioning) and re-education of the staff. Purposeful hourly rounding was chosen as the quality improvement (QI) project because when hourly rounding focuses on the 4 P's, falls decrease (Fabry, 2015).

PURPOSE

To implement a standardized approach to purposeful hourly rounding, using a scripted dialogue focused on the 4 P's, to help decrease the number of patient falls from 273 (63 percent) by 20 percent over a six-month period from December 1, 2015, to June 3, 2016.

SETTING

Montefiore is a large academic acute care health system located in an urban setting comprising several campuses. The Weiler Campus, located in the Bronx, serves a diverse population across the life span. Weiler is a 400-plus-bed academic, acute care hospital and provides a variety of care settings, including emergency room, in- and outpatient care, ambulatory and operative, neonatal, maternal and so much more. This program was implemented on 13 of our 19 inpatient medical/surgical units.

METHODOLOGY

Montefiore's QI model, Plan-Do-Check-Act (PDCA), was used as a guide for this project.

Plan:

- Obtain baseline data on number of falls from January through November 2015.
  - » Form a PCC team and conduct a literature review.
  - » Collect data on current hospital rounding practice on inpatient units.
  - » Educate 90 percent of nursing staff hospital-wide.
  - » Design a patient/family questionnaire and observation checklist.
  - » Continue to collect and analyze data weekly (ongoing).
  - » Implement this project as an iterative process.

Do:

- Review data in MIDAS for the number of falls for January through November 2015.
- Organize the PCC team and consult with the librarian to conduct a literature review.
- Analyze data on current rounding practices.

- Identify and utilize three different rounding models without consistent scripting.
- Educate 90 percent of nursing staff from November 9 to November 20, 2015.
- Administer questionnaires weekly (for 10 weeks) and staff observations (twice monthly).
- Review data from the data collection period: 780 patient and family questionnaires were administered from December 1, 2015 to June 3, 2016; and 216 observations were completed from March 1 to June 3, 2016.

Check:

- 273 falls reported for January 1 through November 20, 2015.
- Reviewed 15 articles; nine were selected based on inclusion and exclusion criteria.
- Identified three rounding models in practice with inconsistent scripting:
    » Model 1: RN/NA assigned every hour on entire unit
    » Model 2: NA/RN alternated to round on their own patients
    » Model 3: Unit divided in half and assigned RN/NA every hour
- Completed education, achieving targeted goal.
- Reviewed findings from questionnaires during weekly PCC meetings and staff observations adherence to selected rounding model.

Act:

- Implement best practice fall prevention program hospital-wide.
- Obtain definition of "purposeful hourly rounding" and evidence-based fall prevention program.
- Engage staff in piloting three models; we selected Model 2. Consistent scripted dialogue (using Monte @ Its Best) was added.
- Model 2 consists of:
    » 8:00 a.m./8:00 p.m. group rounds with entire staff on unit to meet and greet each patient and explain who they are and rounding process.
    » RN to round on even hours on own patients.
    » NA to round on odd hours on own patients.
    » Sign rounding logs.
- Prepare staff for implementation of selected model and scripted dialogue.
- Conduct continuous education on rounding process by PCCs on every unit.
- Continue to adjust process and script based on findings from observations.

RESULTS

The number of falls from December 1, 2015, through May 31, 2016, was 163 (38 percent) (questionnaire findings, revised and current); 780 patient and family questionnaires were administered from December 1, 2015, to June 3, 2016, and 216 observations were completed from March 1 to June 3, 2016 (number or percentage for adherence/compliance to the script).

CONCLUSION

Implementation was rolled out simultaneously for two new processes, EPIC and "purposeful hourly rounding," which affected each other. Our original questionnaire did not provide the data necessary to determine if purposeful hourly rounding was being done. We need leadership to help facilitate the success of purposeful hourly rounding. We also compared the night shift versus the day shift (MIDAS data from January 1 to June 6, 2016, showed 73 falls that occurred on the day shift, 7:00 a.m. to 7:00 p.m., and 69 falls during the night shift, 7:00 p.m. to 7:30 a.m.). Inclusion and exclusion criteria for sample population. Other variables contributing to falls should be further investigated.

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16. INITIATING AND MAINTAINING A FALL PREVENTION BUNDLE ON A REHABILITATION UNIT THROUGH TEAM COLLABORATION

Category: Quality Improvement
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INTRODUCTION

The National Database for Nursing Quality Indicators (NDNQI) defines a fall as a sudden unintentional descent that results in the patient coming to rest on the floor, on or against some other surface (Staggs, Mion, & Shorr, 2014). Despite continued efforts to decrease falls, there continues to be a national problem for quality and safety for patients within the inpatient hospital setting. NDNQI quotes the prevalence for falls in the inpatient setting as more than 1 million in total per year, which affects both the quality and safety of patients and increases the cost of patient care. This tremendous impact on healthcare cost has been calculated to be upwards of $14,000 for about 2 percent of falls with serious illness. The national benchmark rates for falls and falls with injury are 3.4 and 0.8/1,000 patient days, respectively.

In January 2015, the fall rate for the rehabilitation unit was 9.5 per 1,000 patient days. This fall rate was 6.1 points above the national benchmark of 3.4 per 1,000 patient days. The rate continued to fluctuate for the next 5 months, ranging from 2.5 in February to 5.1 in June 2015. This unstable fall rate put the rehabilitation team in a call-to-action mode that caused the team to look at the fall prevention measures we had in place, to investigate the literature to ensure we were using best practices, and to synthesize the information to create fall prevention modalities, which we have titled the fall prevention bundle.

SETTING

A 16-bed acute inpatient rehabilitation unit at the Wakefield Campus of Montefiore Medical Center was opened in January of 2015. The unit was immediately challenged with dealing with patients who were high risks for fall. The patient population consists of patients with diagnoses of acute strokes or orthopaedic conditions, including bilateral knee and hip replacements. Patients were admitted with numerous types of neurological disorders, like traumatic brain injury, multiple sclerosis and Parkinson's disease. The age group of the patients ranged from 20 to 90 years of age.

PURPOSE

The purpose of this project is to ensure that the rehabilitation team establishes the best practices for the fall prevention program to decrease the fall rate within a rehabilitation unit as well as to have the stability to withstand the change.

The question that we hope to answer is: have we done everything possible to ensure that we decrease our fall rate and keep our patients safe during their inpatient rehabilitation hospital stay?

As we examine these best practices, we will incorporate the interventions into a performance improvement initiative and test the results over time to determine if the fall rate has decreased and had a positive impact due to these interventions.

DESIGN AND METHODOLOGY

Over the span of 10 months, starting from September 2015 and ending with June 2016, we had implemented modalities to try to significantly reduce the number of falls. One modality that had been implemented since the opening of the acute rehabilitation unit was for staff to sit in the vicinity of assigned patients. The unit later implemented the Enhanced Observation eye sign, which was placed on a patient's door to indicate that the patient was a high risk for falls or it was the team's judgment that the patient should be observed closely for safety. The Walkie-Talkie initiative helped improve communication between staff members. The Patient Safety Education and Counseling Brochure, which had a patient contract, helped convey safety concerns and instructions on how to prevent falls and injuries to each patient admitted to the unit.

Another modality implemented was for staff to position themselves in front of the patients who were at higher risk for falls. A modality that helped us decrease falls was the Post Fall Huddle (PFH), which assessed the location and situation of the patient during the fall, patient background, recommendations and suggestions for corrective actions that could further prevent falls. The PFH was to be conducted within 30 minutes of a fall by the Fall Prevention Task Force (FPTF), which included all staff members of the unit, including the patient, resident and housekeeper available on the shift the fall occurred. As we utilized the PFH, we followed recommendations accumulated through it. Recommendations utilized were to assist/supervise patients in the bathroom during toilet transfers and to stay with the patient while he or she used the bathroom; keeping call bell, remote and other patient needs within reach; heeding and following the number of times of assistance suggested for each patient; and stressing the importance for the patient to use the call bell to request needs and transfers, whether assisted or supervised.

In September 2015, our fall rate was 8.8, with 4 falls and an ADC of 15. During this month we implemented the PFH, recorded falls that occurred and followed recommendations made from the PFH. In October 2015, the fall rate was 0, with 0 falls and an ADC of 15. In November 2015, the fall rate was 6.6, with 3 falls and an ADC of 16. In December, the fall rate was 4.4, with 2 falls and an ADC of 14. In January 2016, the fall rate was 4.4, with 2 falls and an ADC of 15. In February 2016, the fall rate was 4.4, with 2 falls and an ADC of 16. March, April and May had fall rates of 2.2, with 1 fall and an ADC of 15. In June 2016 the fall rate was 2.2, with 1 fall and an ADC of 16. The fall rate consistently dropped as we continued using each of these modalities and following recommendations gathered through the PFH.

CONCLUSION

After examining these best practices, we will incorporate the interventions into a performance improvement initiative that will be initiated for a 10-month period to determine if these interventions will make an impact on the fall rate of the rehabilitation unit.

The evidence-based literature supports the Fall Prevention Bundle (FPB) adopted by the rehabilitation unit. There was a significant decrease in the fall rate since the inception of the FPB; it would be prudent to continue the project for at least one year to determine the maximum effect of the project.

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17. AUTOMATED SURVEILLANCE TECHNOLOGY TO IMPROVE SURGICAL SURVEILLANCE WORKFLOW EFFICIENCY: A LARGE HEALTHCARE SYSTEM EXPERIENCE

Category: Quality Improvement
Authors: Adebisi Adeyeye, DHA, MPH, RN, CIC; Audrey Adams, MPH, RN, CIC

INTRODUCTION

A large healthcare system implemented an electronic surveillance system (ESS) to meet the demands of the mandated national and state public reporting requirements for healthcare-associated infections (HAI). Automated surveillance for HAIs has been accelerating over the past decade with the streamlining of these surveillance workflow processes as a desired outcome. Manually completing the National Healthcare Safety Network (NHSN1) surgical denominator is time consuming and intensive, involving many steps.

PURPOSE

To evaluate workflow improvement using surveillance technology among infection preventionists.

DESIGN

A knowledge-seeking iterative design to compare manual input of surgical data into NHSN with automation.

SETTING

A large healthcare system in New York.

METHODOLOGY

Using the Learning Evaluation approach (Hebden, 2015), we looked at the time spent on surgical surveillance before and after implementation of the ESS. In July 2014, our 425-bed academic medical center implemented an automated surveillance application with a surgical procedure data feed sourced by the facility's independent operating room (OR) system. A scheduled report was developed to generate information twice a month from the OR system. The parameters of the report were standardized utilizing the NHSN guidelines for Clinical Documentation Architecture (CDA) import.

RESULTS

Using the ESS takes approximately a third of the time of the manual process going from greater than 60 hours to less than 20 hours. Automating the process allows for capture of NHSN data elements from electronic data feeds and creates opportunities for efficient collection of denominator data and the required NHSN data elements for SSI risk adjustments. See Table 1.

TABLE 1

Period	Number of operative cases	Burden of collection	Time in minutes	Time in hours
January–June 2014	370	10 minutes	370 x 10 (3,700 minutes)	61.6 hours
January–June 2015	395	3 minutes	395 x 3 (1,185 minutes)	19.75 hours

CONCLUSION

The benefits of utilizing the ESS for surgical surveillance reduced the burden on infection prevention, fulfilling the reporting mandate. ESS results in time savings by eliminating the need to manually identify the operative cases and allows for timely intervention for identified infections. A timely data collection is actionable and leads to prompt identification of changes or patterns in real time.

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18. A COLLABORATIVE JOURNEY TO REDUCE CENTRAL LINE BLOODSTREAM INFECTIONS IN THE NEONATAL INTENSIVE CARE UNIT

Category: Evidence-Based Practice
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INTRODUCTION

Hospital-acquired infections (HAIs) (Centers for Disease Control and Prevention, 2016) affect the survival of extremely low birth weight infants (ELBW) and have negative effects on their survival, morbidity and long-term development. Increased survival of ELBW infants is associated with prolonged hospitalization and high risk of late-onset infection. For these very small infants, central venous catheters (CVC) pose greater risks for central line–associated blood stream infections (CLABSIs), which account for the majority of late-onset infections.

PURPOSE

The purpose of this evidence-based practice project (Soll, 2010) was to identify and promote practices that will reduce the high CLABSI rates in the NICU setting.

DESIGN

Evidence-based methods were used to identify strategies with the focus on CLABSI prevention through standardization of established CVC insertion and maintenance protocols. A decision was made to include Hospital B, a 22-bed special care nursery and NICU in the hospital network.

SETTING

A major medical center in a borough of New York City in the setting of two NICU units.

METHODOLOGY

A collaborative group was formed of neonatologists, staff RNs, and infection prevention and infectious diseases specialists. The focus was CLABSI prevention through standardization of established CVC insertion and maintenance protocols. A decision was made to include the Hospital B campus, a 22-bed special care nursery and NICU. The following strategies were implemented: re-trained staff using learning modules; implemented the CLABSI bundle checklist to ensure all aspects of the placement and maintenance plan was followed; reinforced hand hygiene procedures with staff; implemented the use of 2 percent chlorhexidine gluconate as the central lines' skin prep, with criteria for age and weight; and instituted weekly CLABSI review meetings.

RESULTS

This collaborative resulted in a 63 percent reduction of Hospital A's NICU CLABSI rate in 2015, as compared with the 2013 rate. In addition, there was a 26 percent reduction of Hospital B's 2015 rate, as compared with the 2013 one.

CONCLUSION

Collaboration of the NICU team with Infection Prevention and compliance with the bundle checklist contributed to this successful CLABSI prevention project. Ongoing efforts are required to further reduce CLABSI rates as we target zero in the NICU setting.

NICU CLABSI RATES

Reporting Year	Hospital A			Hospital B		
	Number of CLAB Days	Number of CLABSI	Rate	Number of CLAB Days	Number of CLABSI	Rate
2013	2482	8	3.20	603	3	5.00
2014	2477	5	2.00	597	2	3.40
2015	2505	3	1.20	538	2	3.70

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19. NURSE PRACTITIONER-DRIVEN COLLABORATIVE CONSULT SERVICE IN THE SICKLE CELL DEPARTMENT

Category: Quality Improvement
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INTRODUCTION

Sickle cell disease (SCD) is a hereditary disease affecting more than 100,000 African Americans and Latinos in the United States. SCD primarily affects African Americans but is also a multi-ethnic and multicultural disease. SCD affects patients globally as well. The northeast Bronx has a high proportion of patients with SCD. The most recent report states that patients with SCD account for hospitalizations costing $475 million in the United States. Montefiore Medical Center's expenditures are similar to average national costs. As a result, Montefiore has introduced the Sickle Cell Center for Adults (SCCA) in an attempt to decrease costs while improving the care of SCD patients. The SCCA program provides medical and psychosocial care, embracing a multidisciplinary approach to address the challenges of the disease. SCCA strives to improve quality of care (QOC) by decreasing emergency department use while increasing outpatient preventive visits.

Nurse practitioners (NPs) play an integral role in the management of sickle cell disease. Patients are followed by expert NPs in SCD. Our team recruits patients through the emergency department (ED), inpatient daily rounding and community outreach programs. In addition, we develop individualized care plans, which include psychosocial and community outreach information.

PURPOSE

To change the trajectory of treatment for SCD through clinical practice, education and translational research to improve patient outcomes.

SETTING

Montefiore Moses Division

METHODOLOGY

The SCD healthcare providers created the Sickle Cell ED Alerts email process, which signals the NPs of patient ED visits. The ED staff collaborate with the SCD NP to bridge healthcare gaps in the treatment and management of the SCD patient to provide effective outcomes. The SCD NP inpatient consult service is activated once a patient is admitted. The SCD NP will then provide care to facilitate early discharge and prevent unnecessary complications that may predispose the patient to increased hospital length of stay (LOS).

Daily rounding also improves the welfare of the inpatient population. The team includes SCCA's medical director, SCD NP, pain management NP, house staff, social worker and patient educator, who provide individualized care to each patient. This allows for early discharge and close outpatient follow-up. Another innovative strategy is creation of SCD perioperative guidelines to prevent post-operative complications such as acute chest syndrome, which often results in ICU admissions. Our preliminary findings suggest a decrease in post-operative complications.

RESULTS

Strategic planning and implementation show significant outcomes in decreasing LOS, decreasing ED utilization and increasing outpatient census, thus decreasing overall costs. SCCA has seen tremendous decrease in average LOS, from 10 days in 2014, to 4.9 days by 2016. The readmission rate decreased from 42 percent in 2014 to 28 percent in 2015.

CONCLUSION

SCD is a complex disease to manage. Research has shown that patients with SCD who receive care in a comprehensive center have better outcomes. Hence, NPs have an integral role in the management of SCD and are equipped to lead in developing and adopting innovative, patient-centered care models.

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20. REDUCING FALLS ON A MEDICAL SURGICAL UNIT: A PERFORMANCE IMPROVEMENT PROJECT

Category: Performance Improvement
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INTRODUCTION

Falls and injuries in an acute care setting remain a big challenge (The Joint Commission, 2015) as they greatly affect quality and safe patient care. The National Database for Nursing Quality Indicators (NDNQI) defines a fall as a sudden, unintentional descent with or without injury to a patient that results in the patient coming to the floor. Fall events increase the average length of stay by approximately 6.3 days (Wong et al., 2011) and costs of $10,000–$15,000 per inpatient days. In 2008, the Center for Medicare and Medicaid Services (CMS) defined a fall as a hospital-acquired condition (HAC) and will not reimburse costs related to falls that are preventable (CMS, 2009). Toileting is one of the most common causes for falls (Tseng, 2012). From January 1 to June 30, 2015, on unit 9 North, falls related to toileting were 52 percent (MIDAS); the unit goal is zero. Thus, the purpose of this project was to decrease the number of falls due to toileting from 52 to 0 percent over two months.

PURPOSE

This project aimed to reduce the number of falls on unit 9 North at Montefiore's Weiler Campus, by 52 percent over two months to 0 percent, and to sustain the 0 percent rate.

SETTING

Weiler Campus unit 9 North is a 30-bed medical-surgical unit. The population is 21 years old and older. Patients have cognitive impairment, substance abuse, renal and respiratory conditions. The staffing ratios are: RNs, 6:1; CNAs, 10:1.

METHODOLOGY

Performance improvement process using Plan, Do, Check, Act (PCDA) cycle.

Plan:

- Obtain baseline (pre) data on falls related to toileting on unit 9 North, through MIDAS.
- Brainstorm on the causes of the falls and toileting.
- Educate staff to identify high-fall-risk patients on admission using a Morse scale; these patients will require an escort for toileting.
- Obtain post-intervention data from MIDAS.

Do:

- Educate all staff over the two weeks prior to intervention.
- Reinforce purposeful hourly rounding.
- Identify patients at risk for falls using Morse scale.
- Identify patients who require an escort for toileting (indicated by a yellow dot next to patient's name).
- Complete patient/family toileting questionnaire.
- Collect data from July to August 2015 through MIDAS.

Check:

- Post-intervention data: The goal was zero toileting-related falls between July and August 2015.

Act:

- Continue to track data in MIDAS on a monthly basis.

- Maintain effective hourly rounding on all patient encounters.

- Reinforce: Patients identified as fall risk (using a Morse scale); conduct effective hourly rounding; escort patients to bathroom and/or commode and remain with them.

- Maintain patient/family toileting questionnaire.

- Maintain interviews with patient/family on staff compliance with intervention.

RESULTS

Zero falls related to toileting occurred from July to August 2015.

CONCLUSION

Preventing falls requires teamwork. As patient safety is a priority and each unit is different, engaging everyone is the key to prevent and reduce the number of falls. Implementing a plan, engaging everyone, maintaining continuous re-enforcement as well as monitoring compliance made the difference on this unit. Using the contribution factors related to toileting and individualizing toileting plans of care were key strategies for this unit. Escorting and remaining with patients identified as high fall risk were effective to achieve zero falls on this unit. Educating the staff was crucial. Other existing hardwired concepts include the "no passing zone" and "Montefiore at its best." No matter our role or responsibilities, we all play an important role in ensuring patient safety.

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21. AROUND THE CLOCK SUPPORT AND BREASTFEEDING PRACTICES

Author: Angela Samuel, MSN, RN, IBCLC
Category: Quality Improvement

INTRODUCTION

Immediate skin-to-skin contact (SSC) of the mother-infant dyad has many great benefits. Thus, promoting immediate skin-to-skin around the clock will lead to early initial hospital breastfeeding and success when discharged home. The Academy of Pediatrics recommends that mothers breastfeed their infants for at least six months. Even though mothers are provided with information on all the benefits of breastfeeding, the majority of them do so for less than six months. One factor that contributes to successful breastfeeding practice is support that is provided at the time of delivery. However, very little is known about the availability of around the clock (24x7) support to promote skin-to-skin and breastfeeding practices. Thus, the purpose of this pilot project is to compare the perceptions of mothers who deliver during day (7:00 am–7:00 pm) and night (7:00 pm–7:00 am) tours regarding the support they receive and how that has influenced their decision for initial and continued breastfeeding practices.

PURPOSE

The purpose of this project is to gather preliminary information about the perceptions of mothers who deliver during the day (7:00 am–7:00 pm) and night (7:00 pm–7:00 am) tours regarding the support they receive and how that influenced their decision for initial and continued breastfeeding practices.

SETTING

The project was carried out in an urban Women, Infants, and Children (WIC) center. WIC is a special supplemental nutritional program for low-income pregnant, postpartum and breastfeeding women, infants and children up to 5 years old who are believed to be at a nutritional risk. This federal-funded government agency provides food benefits, access to resources that include health screening, nutrition and breastfeeding counseling, immunization screening, substance abuse referral and more. Nationwide, more than 8.2 million people receive WIC benefits each month, and more than half of them are children. In order to be able to receive WIC benefits, family income must fall at or below 185 percent of the U.S. Poverty Guidelines (for example, $39,200 for a family of four). An individual who receives other benefits or has family members who receives benefits from the Supplemental Nutrition Assistance Program, Medicaid or Temporary Assistance for Needy Families will automatically meet income eligibility requirements to receive WIC benefits.

Breastfeeding mothers receive counseling, breastfeeding educational materials and follow-up support through peer counselors. These mothers are able to participate in WIC for a longer period of time, will receive enhanced food packages, and are able to receive breast pumps and breast shells in order to help these moms to initiate and continue breastfeeding.

DESIGN

This project uses a survey of a convenience sample of mothers to gather initial information about SSC support, initiation and maintenance of breastfeeding.

METHODOLOGY

1. Participants gave verbal consent that was obtained and were informed that their responses are confidential and will only be used for this project. Participants were also informed that their names will not be used for any purposes, and they cannot be identified by their responses.
2. The interview questionnaire was self-designed, piloted on two rounds before final use.
3. There are 10 questions and the interview lasts for 10 minutes.
4. The interview was done when mothers visit the WIC center for their first visit, or recertification visit, which could be a few days or more after being discharged from the hospital.

5. The sample size is 20 mothers.

6. The responses to the questionnaire will be analyzed looking for common themes.

RESULTS

Preliminary Findings N = 10:

1. 30% – "When you deliver at night, you are on your own with breastfeeding support."

2. 10% – "I was not producing milk, so it didn't matter if I got support or not."

3. 10% – "I got more support from the nurse in the recovery area (Patient Anesthesia Recovery Unit) than the lactation group."

4. More to follow during the symposium poster session.

Implications for Practice:

1. Skin-to-skin must be available around the clock to promote strong breastfeeding practices.

2. Education of all obstetric nurses to provide basic breastfeeding support.

3. Leadership support to promote nursing education in the area of lactation.

CONCLUSION

To promote breastfeeding practices, lactation support must be available around the clock for every mom. Thus, the education of nurses in the obstetric specialty must receive basic lactation training to provide the support for mothers despite the time of delivery or type of delivery.

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22. PRIMARY NATIVE LANGUAGES AND THE DEVELOPMENT OF CULTURAL COMPETENCE AMONG COMMUNITY COLLEGE NURSES IN THE NEW YORK METROPOLITAN AREA

Category: Research
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INTRODUCTION

Providing quality healthcare for a diverse population of patients is vital. Because of the changing demographic landscape in the United States, healthcare professionals need to be culturally competent. Becoming culturally competent is an important goal that healthcare professionals must strive for in order to decrease disparities among all patients.

PURPOSE

The purpose of this study was to examine the attitudes of cultural competence of registered nurses who received their initial nursing education from an associate degree nursing program, and at the time of this study, they also were enrolled in a registered nurse pathway bachelor degree program. The development of cultural competence was examined as it related to institutional preparations: classroom, laboratory, clinical setting and community influences. The nurses' culturally competent learning experiences at the community college and cultural care practices in the work setting were also examined. Additionally, this study explored the relationships among their attitudes of cultural competent care and their age, years of experience as a registered nurse, gender, ethnicity, primary spoken language and type of work setting. There were three major variables of this study: development of cultural competence, institutional learning experiences in cultural care, and cultural competent care in a work setting. This paper focuses on the development of cultural competence, areas of influences where these influences were acquired (classroom, laboratory, clinical setting and community), and primary languages and emergent themes and patterns from the open-ended question.

DESIGN

A 32-item Likert-Scale type survey that included an open-ended question was used to measure the development of cultural competence attitudes of 156 registered nurses.

SETTING

This study took place at three bachelor degree nursing programs in New York metropolitan area and its suburbs. The nurses were from diverse cultural and ethnic backgrounds and were also employed in various healthcare settings.

METHODOLOGY

The researcher met with the participants in their classroom settings and distributed to each participant a package; the package included a cover letter to participants and survey instrument. The letter included an overview and the purpose of the study; it stated that participation in the study was voluntary.

RESULTS

The findings indicated that there were differences between primary language groups with regard to where cultural competence influences were acquired. Emergent themes and patterns from the open-ended question of this study revealed factors that helped and hindered the nurses' ability to provide culturally diverse competent nursing care.

CONCLUSIONS

Our findings were congruent with prior studies; institutional learning experiences in cultural care may not transition into the clinical practice or work setting.

Implications for Clinical Practice: Recommendations from this study and adaptation of the national culturally and linguistically appropriate services (CLAS) standards may assist nursing administrators with improving and promoting the development of cultural competence attitudes among nurses in the work setting.

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23. HAPPI-2 (HOSPITAL-ACQUIRED PNEUMONIA PREVENTION INITIATIVE): PHASE I

Category: Research
IRB Number: 2015-4972
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INTRODUCTION

Pneumonia and other lower respiratory tract infections are the most prevalent group of hospital-acquired infections in the United States (Magill et al., 2014). Recent required surveillance and disease prevention initiatives have been focused on ventilator-associated pneumonia (VAP), leaving nonventilator hospital-acquired pneumonia (NV-HAP) inadequately studied and underreported (CDC, 2016a,b; Quinn et al., 2014; See et al., 2016).

In a pilot study, HAPPI-1, Quinn et al. (2014) found that implementation of a standard oral care protocol decreased incidence of NV-HAP from 0.49 to 0.3 per 100 patient days (38.8 percent) for an estimated cost avoidance of $1.72 million and prevention of eight deaths. HAPPI-2 is an expansion of this original pilot study to add to the science and literature on the incidence and prevention of NV-HAP.

HAPPI-2: Phase 1 is a descriptive quasi-experimental study using retrospective analysis to determine incidence and related nursing care associated with non-ventilator-associated hospital-acquired pneumonia (NV-HAP). This national-level study originated at Sutter Health in California and was funded by Sage Products. Montefiore is one of 24 hospitals that participated in this multi-site national study.

PURPOSE

To identify the incidence of NV-HAP, patient characteristics and related nursing interventions for adult patients at all 24 participating sites during the calendar year 2014.

DESIGN

This study used a descriptive quasi-experimental design using retrospective medical record analysis to determine incidence and related nursing care associated with NV-HAP.

SETTING/SAMPLE

All patients admitted to Moses, Weiler and Wakefield Campuses in calendar year 2014 with a diagnosis of pneumonia not identified upon admission were included.

METHODOLOGY

Centers for Disease Control and Prevention (CDC) guidelines were used to rule in cases of NV-HAP (CDC, 2016). For validated cases, further chart review including patient demographic data and nursing management 24 hours prior to diagnosis of pneumonia was conducted.

RESULTS

There were 788 medical records identified with a diagnosis of pneumonia on discharge from Moses, Weiler and Wakefield in 2014. Upon review of these records 205 (26 percent) were confirmed cases of NV-HAP. Demographic data revealed that most patients were less than 89 years old (92.2 percent), gender was represented equally and ethnicity was:

- African American: 34.1 percent
- Hispanic: 29.8 percent
- White: 23.9 percent
- Asian American: 1.5 percent
- Other: 6.3 percent

The majority of patients were admitted from home (77.6 percent) and discharged home (43.9 percent). Most patients acquired NV-HAP while on medical/surgical units (69.8 percent), and 15.6 percent of them required a higher level of care in the ICU. Readmission within 30 days was identified at 24.9 percent.

The review of related nursing care revealed that no oral care was documented in 60.5 percent of the confirmed NV-HAP cases. In addition, documentation of elevation of the head of the bed, getting patients out of bed when permitted, use of incentive spirometer, and coughing and deep breathing revealed opportunities for improving missed nursing care.

Final analysis of the multi-site data for aggregate patient characteristics, nursing management and rate of NV-HAP per 1,000 patient days is currently being calculated by the principal investigators of the National HAPPI-2 Study.

CONCLUSION

Only 26 percent of patients discharged with a diagnosis of pneumonia not present upon admission met CDC guidelines for NV-HAP, which is consistent with findings of other research sites (D. Baker, personal communication, July 20, 2016). Results regarding increased discharges to SNF (9.2 percent) are comparable with those reported in the literature. An identified mortality rate of 19 percent (39/205) was observed and is lower than 30 to 70 percent reported by the American Thoracic Society (ATF, 2005). Missed opportunities in delivery of nursing care were identified in all areas measured. Notably, greater than 50 percent of the time, oral care, elevation of the head of the bed, and coughing and deep breathing were not carried out, identifying areas for further investigation.

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24. THROUGH THE LOOKING GLASS: PRESSURE INJURY IN THE OPERATING ROOM...WHAT DO WE KNOW?

Category: Evidence-Based Practice
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INTRODUCTION

Pressure ulcer (PU) is a historic problem in healthcare. It affects approximately 2.5 million patients, leading to 60,000 deaths annually, more than 17,000 lawsuits, individual cost ranges between $20,900 to $151,700, and annual cost between $9.1 billion and $11.6 billion in the United States (AHRQ, 2016). By preventing PU, hospitals can gain 99 percent of reimbursement on discharge rather than non-payment for hospital-acquired PU (ARHQ, 2016; Center for Medicare & Medicaid [CMS]). A pressure ulcer is defined as "a localized injury to the skin and/or underlying tissue, usually over a bony prominence, as a result of pressure or pressure in combination with shear and/or friction" (Santamaria et al., 2013 p. 344), and the National Pressure Ulcer Advisory Panel (NPUAP) changed the terminology to "pressure injury." However, ICD codes are unavailable to reflect the new definition. A perioperative PU is any pressure-related tissue injury that presents (i.e., non-blanchable erythema, purple discoloration or blistering) within 48 to 72 hours post-operatively and is associated with surgical positioning (Scott, 2015). Pressure ulcer can occur in any setting, for instance, emergency department, inpatient units and long-term care. Thus, it is important that hospitals institute evidence-based assessment and prevention programs in all areas of clinical practice. In addition, surgery is one of the few times when someone not at high risk becomes at risk for PU. With surgeries lasting 90 minutes or more, the risk for PI increases every 30 minutes beyond the 90 minutes (Scott, 2016). Therefore, attention has been increased on the occurrence of PU development related to positioning while in the operating room (OR), and it is the leading cause of increased length of stay. Furthermore, it can cost between $14,000 and $40,000 per patient (Primiano et al., 2011). Pressure ulcers that appear within the first 72 hours after surgery in tissues subjected to prolonged pressure during surgical procedures have an increased incidence between 5 and 53 percent and prevalence between 9 and 21 percent (Scott, 2015). In actuality, the PU does not occur in the OR, so who claims it? What interventions need to be in place during the pre-, intra- and post-operative periods? Studies have identified the OR as a place of origin for PU, and very little is known. Therefore, the purpose of this literature review is to explore the prevalence and incidence, contributing risk factors and preventive strategies of PIs among those age 62 years and older undergoing surgical procedures lasting three hours and longer and to highlight important recommendations for intervention and gaps for future research in this area.

PURPOSE

The purpose of this literature review is to explore the prevalence or incidence, contributing risk factors and preventive strategies of pressure injuries for those age 62 years and older undergoing surgical procedures lasting three hours and longer, and to highlight important recommendation for intervention and future research in this area.

SETTING

Operating room in an acute care setting.

DESIGN/METHODOLOGY

Literature Review: Search terms: "Pressure Ulcer," "Operating Room," "Pressure Injury (PI)," "types of surgical procedures lasting longer than three hours," "operating theatre."

1. The literature review focus will be in three areas: (a) the incidence and prevalence of PU in the OR, (b) contributing factors: intrinsic and extrinsic, and (c) prevention strategies.

2. Parameters for the literature review are: age 62 years an older, male and female, no restrictions on year of publication, surgery/surgical procedure lasting more than three hours.

3. Databases searched in July 2016: Cochrane, Clinical Trials, PubMed, and AORN and WOCN websites, presentations from the WOCN and CAET 2016 conference proceedings and *Wounds International* (http://woundsinternational.com).

4. The literature was based on the parameters, and findings were reported based on the objectives.

5. Review Methods: Inclusion criteria required that articles: (a) were published in a peer-reviewed journal, (b) were in the English language, (c) included one or more of the search terms, and (d) extracted information related to incidence and prevalence of PU in the OR, contributing factors (intrinsic and extrinsic), and preventive strategies.

RESULTS

1. The search strategy yielded 13 articles of which four met the inclusion critera.

2. Incidence and Prevalence: 19.2 million surgeries for those 65 years and older annually; 4–45 percent in 1,128 subjects (Aronovitch, 1999); 0.3–57 percent in 5,451 subjects (Chen, 2012).

3. Contributing Factors:
   » *Intrinsic:* (pre-operative) age > 62 years and comorbidity, low albumin level, BMI <19 or >40, recent significant weight loss, race, ASA scores >3, diabetes, cardiac disease, vascular disease, pulmonary disease, renal insufficiency, time to surgery type.
   » *Extrinsic:* time on the table, surgical position and devices, negativity—layers, warming blanket, hypotensive episodes, heat—hyperthermia, decreased H & H, cardiopulmonary circulation, table pad construction, shear/friction, lateral transfers, anesthesia (general/spinal) medications, moisture—maceration.
   » *Post-operative Factors:* days in bed, total time of immobility, success of recovery, early mobilization, hemodynamic status, respiratory (hypoxia), nutrition, skin assessment, pressure redistribution, pain control, device-related ulcers, cervical collars, tubing.

4. Prevention of Perioperative Pressure Injury Tool Kit:
   » Consider other risk factors specific to individuals undergoing surgery (C).
   » Invest in the appropriate support surfaces on the OR table for those at risk (B).
   » Change position to reduce risk of pressure injury during surgery (C).
   » Offloading of heels while patient is on the OR table (C).
   » Increase vigilance to pressure redistribution before and after surgery (C).

5. Resources: http://www.aorn.org/guidelines/clinical-resources/tool-kit/prevention-of-perioperative -pressure-ulcers-tool-kit (education, electronic slides, webinars, posters OR skin bundle).

6. OR Skin Bundle: Use high-specification OR table pads, offload heels, use special padding for risk body areas, use only approved positioning devices, safe patient handling, hand-off communication; Post-op: early mobility, daily skin assessment, pressure and moisture management (Black et al., 2015).

7. Assessment of current OR practice and identify areas for improvement; conduct RCA.

8. Study cost savings associated with pressure injury (PI) prevention.

9. Increase awareness on pressure injury, device-related pressure injury, and medical adhesive–related skin injury (MARSI); continue PI prevention after surgery; include skin status, risk factors for PI in hand-off communication.

10. Nurses: Use of skin assessment tool for every patient (e.g., Scott Triggers), easy, simple to use; skin assessment hand-off, before and after surgery, and documentation; other tools, Munro scale: undergoing validation studies; Braden Scale has limitations in the surgical population; Braden Q Scale: pediatric population.

11. Opportunities for Future Studies: (1) the development of specific risk assessment for the surgical population, (2) using technology to track and collect data on PI, (3) RCT on redistribution surfaces specific to OR tables and positioning devices, (4) the role of medications, anesthesia, temperature on PI.

CONCLUSION

Pressure ulcers are costly and increase mortality and morbidity, and they intercept quality and safe patient care. Thus, extending risk assessment for surgical patients beyond the standard risk assessment would benefit all patients undergoing surgical procedures, especially those at high risk. Tailoring interventions to various types of surgical procedures and positions is definitely a win-win in

pressure ulcer reduction for surgical patients. Finally, nurses must be knowledgeable in PI epidemiology, presentation, prevention and advances in the field of skin care.

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25. PEDIATRIC EMERGENCY DEPARTMENT TO PEDIATRIC INTENSIVE CARE UNIT THROUGHPUT IMPROVEMENT PROJECT

Category: Quality Improvement
Authors: Elvia Payne, RN, CPN, MSN, MHA; Patricia Veintimillia, RN; Tania Shiminski-Maher, MS, CPNP

INTRODUCTION

Delays in Pediatric Emergency Department (ED) to Pediatric Intensive Care (PICU) admissions were identified as a problem in Children's Hospital at Montefiore (CHAM). Delays in facilitating Pediatric ED to PICU transfers results in increased length of stay, morbidity and mortality.

PURPOSE

To decrease Pediatric ED to PICU transfer time by 10 percent over a six-month period.

SETTING

Children's Hospital at Montefiore: Pediatric ED and PICU.

METHODOLOGY

A process map for admission of Pediatric ED patients to PICU was identified for ED and PICU. Data was collected from February 2015 through October 2015. Initial data was collected over a two-month period (February to March 2015) to identify the various stages and time during each stage in processing a Pediatric ED to PICU admission. Analysis of the initial data identified specific stages of admission that process time could be reduced or eliminated. Data interventions were then put into place to reduce the overall time from patient identification for a PICU admission until their arrival in the PICU. A second data collection was performed for two months (September to October 2015) after interventions were initiated.

RESULTS

Initial two-month data collection indicated a mean time of 151 minutes from the time a Pediatric ED patient was identified as a PICU admit to that patient arriving in the PICU. The major obstacle was communication, especially during times of maximum census. The process for admission was complex and different for each of the units. Multidisciplinary bedboard huddles twice a day, incentive for early discharge planning and morning discharges, and a streamlined process for admission was initiated. Cell phones were provided for nursing to facilitate communication between environmental and respiratory services necessary in completing transfers. PICU registered nurses go to Pediatric ED to receive patient and transport the patient with pediatric medical staff and respiratory therapist. Over the nine-month period, the time from Pediatric ED to PICU transfer dropped from a mean of 151 minutes to 54 minutes.

CONCLUSION

After initial assessment, steps were taken to streamline the workflow to facilitate Pediatric ED to PICU throughput. Improved communication across all disciplines necessary for facilitating throughput resulted in a significant reduction in the time from which a pediatric ED patient was identified as a PICU admission until he or she arrived on the unit.

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RUN CHART-TIME FROM ED TO PICU THROUGHPUT (MINUTES)

Legend: Minutes, Median

Data points: Feb 151, March 137, April 124, May 92, June 115, July 80, Aug 91, Sept 52, Oct 54
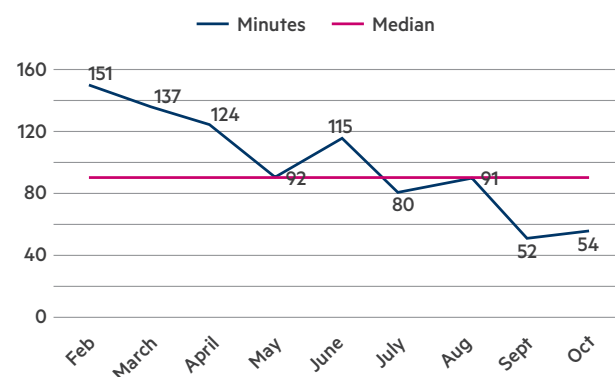
26. PREVALENCE OF SICKLE CELL RETINOPATHY IN PATIENTS WITH SICKLE CELL DISEASE IN AN ACADEMIC TERTIARY MEDICAL CENTER: IS THERE A HYDROXYUREA EFFECT?

Category: Research
IRB Number: 2015-4944
Authors: Sean Tsao, MD; Umar Mian, MD; Ana Paula Morales Allende, BA; Leena Vattappally, FNP, RN; Daniel Schoenfeld, BA; Caterina Minniti, MD

INTRODUCTION

Among the many vascular complications of sickle cell disease (SCD), retinopathy can be insidious and represents a leading cause of blindness with hemoglobin B sickle cell (HBSC). Its prevalence is higher in HBSC and hemoglobin S (HBS) β-thalassemia than (hemoglobin sickle S) HBSS: approximately 30–50 percent and 20 percent, respectively. We describe and categorize ocular pathologies in an urban population of SCD patients, as well as assess the impact of hydroxyurea (HU) on sickle cell retinopathy (SCR).

SETTING AND METHODOLOGY

This retrospective study included SCD patients with complete ocular examination seen in the Henkind Eye Institute at Montefiore Medical Center in New York City from October 2012 to September 30, 2015.

RESULTS

A total of 108 patients, 61 female and 47 male, were included in this study; 74 subjects self-identified as "Black," 10 as "Hispanic," 1 as multiracial, and 23 not specified; mean age was 38.5 (range 19–68 years). Retinopathy was found in 39 patients (25/39 SS and 14/39 SC+ Sβthal), 59 percent of which had proliferative retinopathy. Of all patients, 73.1 percent were prescribed hydroxyurea (79/108), and there was no difference in HU prescription between patients with and without retinopathy (76 vs. 73 percent). As a measure of compliance with HU, we arbitrarily chose hemoglobin F (HbF) > 7.5 percent as compliant, which was seen in 41 percent (16/39) of sickle cell retinopathy (SCR) patients, compared with 42 percent (29/69) in patients without retinopathy. The prevalence of a more severe form of retinopathy, proliferative sickle cell retinopathy, was lower in patients with higher compliance with HU: 16 percent (6/23) of patients with F > 7.5 percent had proliferative retinopathy, compared with 44 percent (17/23) of patients with HbF ≤ 7.5 percent. Sex did not have an influence.

CONCLUSION

The study demonstrates a high incidence of retinopathy in patients with both HBSS and HBSC/Sβthal. It found that HU is prescribed at a higher rate than the reported 30 percent nationwide. However, compliance or dose escalation might not have been sufficient to achieve protective levels of HbF in the majority of patients, as demonstrated by the low levels of HbF in more than 70 percent of the patients. In the subset of patients with highest HbF, the prevalence of proliferative retinopathy was lower. Prospective studies are needed to evaluate the role of HU in preventing or ameliorating retinopathy in this patient population.

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27. GETTING TO THE POINT

Category: Quality Improvement
Authors: Mohamed Yasin, RN, MSN, MPH; Ronald Cadet, BA

INTRODUCTION

Despite the best efforts to prevent needle sticks through technology and teaching, needle stick injuries are still occurring in the healthcare industry. Nurses, due to the frequency with which they handle needles, often get stuck more than any other healthcare provider. In 2013, a total of 508 percutaneous injuries were reported by network facilities—a sharps injury rate of 21.37 per 100 occupied beds. More than 36 percent of the injured employees were nurses (Keller, 2016). One study found that needle-stick injuries in hospital nurses increased by 16 percent for every additional 10 hours they worked (Keller, 2016).

PURPOSE

To formulate an understanding through literature review and informal survey to understand why needle sticks are still occurring. Furthermore, to see if the literature and nurses' perceptions are in line concerning the frequency of needle-stick injuries, and to ascertain if the data collected presents an opportunity to curtail needle-stick injuries.

DESIGN

Our informal survey contained five questions designed to determine why needle stick-injuries are still a problem in healthcare. The survey questions were derived from literature reviews on needle-stick injuries in order to determine if the nurses' survey responses reflect the findings in the literature. Questions were designed to gather information about nurses' awareness level, what causes needle-stick injuries, and nurses' knowledge of devices.

SETTING

Medical/surgical units at the Moses Division, an academic teaching hospital of Montefiore Healthcare System.

METHODOLOGY

The questionnaire was designed based on the literature concerning causes and prevention of needle-stick injuries. Since this was an informal study, nurses were approached randomly from different disciplines and units across Montefiore's Moses Campus. The 34 participants were told they would not be identified in order to ensure honest answers. The volunteers were given a three-month period to fill out questionnaires, with drop-off instructions.

RESULTS

A total of 34 nurses volunteered to fill out this questionnaire. The informal survey contained five questions, and the results were as follows:

- **Question 1: What is your awareness level when using needles?**
  One hundred percent of participants said their awareness level when using needles was high. When asked why, reasons given included fear of infection and fear of being stuck by a needle.

- **Question 2: What are factors that cause needle sticks?**
  Survey responses included working fast, poor technique and uncooperative patients.

- **Question 3: Do you trust the devices to prevent needle stick?**
  One hundred percent of the nurses surveyed answered yes.

- **Question 4: What do you rely on to prevent needle sticks when giving injections?**
  The volunteers stated they rely on the design of the devices, paying attention to their surroundings and making patients comfortable to prevent moving.

- **Question 5: Do you think needle stick is still a major concern in nursing?**
  One hundred percent of the nurses reported they still had major concerns about needle-stick prevention.

CONCLUSION

The results from the informal survey seem to indicate that nurses believe that needle sticks are still a major concern despite new technology, constant teaching and government regulation. The responses the nurses gave seem to indicate needle sticks are caused more by human factors, not technological ones. This is inferred by how the nurses answered Question 2. Nurses believed the most common factors that lead to needle stick are working fast, poor technique and uncooperative patients. Due to the very positive response by those involved in the project, this may present an opportunity to submit our study to nursing leadership for publication.

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28. WHAT DOES IT TAKE TO BUILD THE SICKLE CELL CENTER FOR ADULTS AT MONTEFIORE MEDICAL CENTER?

Category: Quality Improvement
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INTRODUCTION

Sickle cell disease (SCD) has a historic connection to the Bronx, where the first clinic was established at Einstein Hospital in the 1960s. Twenty years later, the Bronx Comprehensive Sickle Cell Center at Montefiore was founded. Unfortunately, federal funding was lost in 2009. Montefiore was committed and re-engaged with this population in 2014. As a result, a multidisciplinary team was funded with the mandate to provide "360-care," connecting inpatient units, outpatient clinics and the emergency department (ED). The Sickle Cell Center for Adults (SCCA) team manages the medical and psychosocial needs of patients with SCD. In addition, we conduct clinical trials and engage subspecialists to handle SCD complications.

The transition of SCD care is challenging. A collaborative approach to improve the quality of care (QOC) is necessary to address the barriers to appropriate treatment. One concern is stigmatization that affects patient centered care. Providers tend to lack sensitivity to patients' care, because their main focus is on pain management. SCD patients are labeled as drug-seekers or "frequent flyers." The SCCA team is sensitive and is focused on improving their lives holistically. The multidisciplinary team collaborates with the community to bridge the gaps of this vulnerable population.

PURPOSE

To change the trajectory of treatment for sickle cell disease (SCD) through clinical practice, education and translational research; in addition, this innovative treatment protocol improves patient outcomes by providing better access for SCD.

DESIGN

A descriptive design was used to gather data that describe events and then organizes, tabulates, depicts and describes the data collection. It often uses visual aids such as graphs and charts to aid in understanding the data distribution.

SETTING AND METHODOLOGY

This study was conducted in an urban hospital in the northeast Bronx. Montefiore Medical Center is ranked nationally in 1 adult and 7 pediatric specialties. It was also high-performing in 8 adult specialties. Montefiore Medical Center is a 1,512-bed general medical and surgical facility with 81,596 admissions in the most recent year reported. It performed 16,506 annual inpatient and 14,169 outpatient surgeries. Its emergency room had 296,614 visits. Montefiore Medical Center is a teaching hospital. The most recent data for sickle cell adults at Montefiore show that there are about 837 people living with SCD. On an average, each year there are 1,388 hospital admissions and 3,401 emergency room visits and in addition there are 6,436 clinic visits to the sickle cell center.

The SCCA program was created to provide medical and psychosocial care while embracing a multidisciplinary approach. This is demonstrated by the creation of specialty clinics, staffed by MDs and NPs who are experts in pain management and wound care. We strive to improve QOC by decreasing ED use and increasing outpatient visits. Our team recruits patients through ED and inpatient rounding. In addition, we develop individualized care plans, which include psychosocial and community outreach.

RESULTS

Under the new leadership of C. Minniti, MD, between 2014–2015 we have seen a significant decrease in inpatient length of stay (LOS), average daily census and ED utilization while increasing outpatient visits.

SCCA AVERAGE DAILY CENSUS AND LENGTH OF STAY 2015–2016
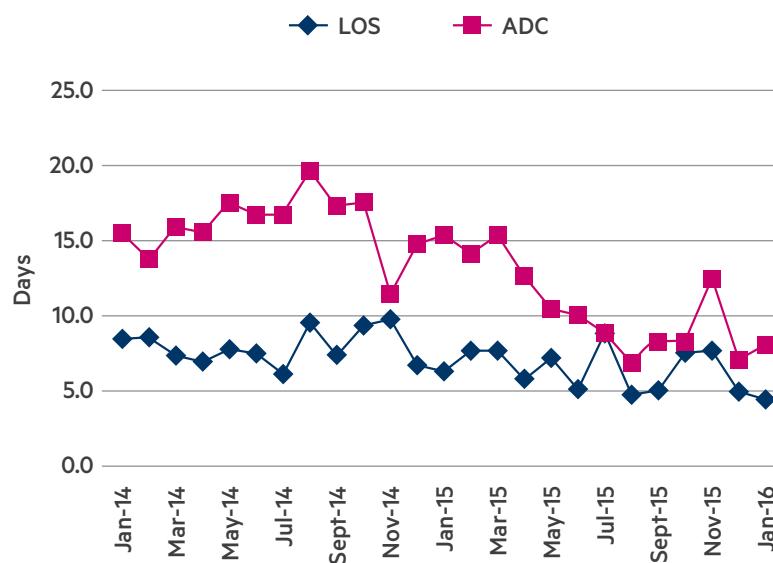
CONCLUSION

SCD is a complex disease to manage. The Institute of Medicine (IOM) states, "Nurses should be full partners, with physicians and other health professionals, in redesigning healthcare in the United States." Research has shown that patients with SCD who receive care in a comprehensive center have better outcomes. Hence, NPs have an integral role in the management of SCD and are equipped to lead in developing and adopting innovative, patient-centered care models.

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29. RATE-BASED ENTERAL FEEDING VERSUS VOLUME-BASED ENTERAL FEEDING IN THE CRITICALLY ILL ADULT

Category: Evidence-Based Practice
Authors: Farley A. Villarente, MSN, RN, FNP, CNOR; Elena Wong, RD; Amor P. Espino, MS, BSN, RN

INTRODUCTION

Early and adequate enteral nutrition (EN) in the critically ill patient is associated with decreased morbidity and mortality (Rubinsky & Clark, 2012). Despite these findings, underfeeding is still a common problem in the intensive care unit (ICU). Several factors contribute to underfeeding, including delays in initiation, under-ordering by the physicians, and reduced delivery through frequent cessation of feedings (McClave et al., 2015).

The most commonly used method of providing EN in the ICU is rate-based (RB). This method delivers the 24-hour estimated caloric requirements by a continuous, fixed hourly rate of infusion regardless of feeding interruptions. If the feeding is interrupted for whatever reason, feeds are restarted at the same hourly rate, and consequently the patient receives less volume, and therefore fewer calories. This method of feeding does not allow for any means of correcting the deficit or degree of underfeeding should cessation of feeds occur (McClave et al., 2015). Despite data demonstrating inefficiency in delivering prescribed calories, this strategy continues to be widely used in the ICU (Haskins et al., 2015).

An alternative method for enteral feeding is through a volume-based (VB) protocol. In this strategy, the daily caloric requirements for each patient are established and are used to determine the total volume of feeds needed to deliver in a 24-hour period. This form of feeding, in contrast with RB, allows for rate adjustments if feeds are interrupted by increasing the rate to compensate for the deficit incurred (Haskins et al., 2015). Initial studies have found that a VB strategy improves the delivery of prescribed calories (Heyland et al., 2010; Haskins et al., 2015).

PURPOSE

The purpose of this evidence-based practice (EBP) project was to address a clinical question using the PICO format. The acronym PICO represents the following: P—patient, population or problem (e.g., ICU patients receiving enteral nutrition); I—intervention (e.g., volume-based feeding); C—comparison (e.g., rate-based feeding); and O—outcome (e.g., delivery of prescribed daily caloric requirements). The PICO question: Among ICU patients requiring enteral nutrition, is volume-based feeding, compared with rate-based feeding, more effective in delivering the prescribed daily caloric requirements? The PICO question served as a guide in the search, selection and review of evidence, and provided a framework for the clinical inquiry.

SETTING

Combined adult medical and surgical ICUs provide intensive care and monitoring services to critically ill adult patients. The ICU practices a primary nursing care delivery model, with Registered Nurses responsible for the overall provision of nursing care.

METHODS

A literature search was conducted using PubMed, Cochrane and CINAHL databases.

Search terms were "enteral feeding," "rate-based," "volume-based," "intensive care unit" and "critical care." Inclusion and exclusion criteria were established and resulted in 18 articles that met criteria. An evidence appraisal instrument was utilized to review the articles. Three articles were selected for final analysis.

RESULTS

Based on the limited evidence obtained, VB enteral feeding is safe and provides greater adequacy in the delivery of EN to achieve prescribed calories compared with the traditional and commonly used RB strategy (Haskins et al., 2015; Heyland et al., 2015; McClave et al., 2015). Considering that VB enteral feeding is a relatively new practice, there is a need for further studies and investigation on

the impact of VB feeding strategy on clinical outcomes such as rates of infection, lengths of stay, and costs (Haskins et al., 2015 & Lee et al., 2016).

CONCLUSION

The body of evidence indicates that patient outcomes are improved when the caloric requirements are met through enteral nutrition. VB enteral feeding is the recommended alternative strategy to optimize the delivery of prescribed calories in critically ill patients. It is further recommended that institutions considering implementing the VB feeding regimen should employ methodical monitoring of nutritional adequacy and provide comprehensive education of all personnel involved to ensure that patients are fed safely and effectively (Haskins et al., 2015; Lee et al., 2016; McClave et al., 2015).

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30. CURRICULUM DESIGN IN POSTGRADUATE TRAINING PROGRAMS FOR PRIMARY CARE NURSE PRACTITIONERS: A MULTIPLE PROGRAM ANALYSIS

Category: Quality Improvement
Author: Kandree E. Hicks, DNP, MPS, APRN, NP-C

INTRODUCTION

Today, novice primary care providers are expected to more rapidly translate academic knowledge to unsupervised skill application. In response, a number of nursing leaders are rapidly developing nurse practitioner (NP) postgraduate training programs (e.g., residencies and fellowships) to better ensure clinician employability and career longevity (Flinter, 2005; Goudreau et al., 2011; Sargent & Olmedo, 2013).

The Institute of Medicine (IOM) and the Affordable Care Act (ACA) explicitly recommend intensified development and expansion of postgraduate training programs for primary care providers, including NPs (AACN, 2010; Carrier, Yee, & Stark, 2007; Institute of Medicine, 2011; 2015). These programs strive to enhance role transition while responding to the mounting primary care challenges, including high provider turnover and complex patient health needs (Benham & Geier, 2014; Flinter, 2012; Goudreau et al., 2011; Hart & Macnee, 2007; Rugen et al., 2014).

There are approximately 23 primary care postgraduate training programs nationally, each with at least one graduating NP trainee cohort (M. Flinter, personal communication, July 21, 2015). Nevertheless, there is a paucity of literature regarding such programs, specifically as it relates to curriculum objectives and design.

PURPOSE

The purpose of this quality improvement (QI) project was to analyze congruencies and variances of curriculum design among primary care postgraduate training programs for NPs. The project illuminates the curriculum features along with the central employer-perspective factors (e.g., educational, organizational, and political) that promote the ongoing development of NP postgraduate training.

SETTING

Nine academic organizations with post-graduate training programs for primary care nurse practitioners in the United States.

DESIGN AND METHODOLOGY

The study is a descriptive project using semi-structured interviews and document review methods. The investigator employed a purposeful convenience sampling approach to identify directors of primary care-focused postgraduate training programs that are members of the two leading postgraduate training associations in the United States. The QI project focused on those programs that agreed to participate in the audio-recorded telephone interviews with the researcher. Nine programs participated, representing a hospital system, several federally qualified health centers, and the Veterans Health Administration.

Postgraduate training programs included in the study had (a) a primary care focus, (b) at least one graduating class by September 2015, (c) English-speaking directors and (d) directors with access to telephone and internet services. Programs excluded from the study did not meet the inclusion criteria.

This study was approved by the institutional review board at Northeastern University in September 2015.

RESULTS

Curriculum learning objectives are aligned with national and professional competency guidelines (e.g., IOM and the National Organization of Nurse Practitioner Faculties).

As a result of these training programs, employers have experienced a more robust hiring pool, smoother on-boarding transitions of novice NPs, and decreased attrition rates of these primary care providers.

Host organizations now seek curriculum standardization and overall program accreditation.

CONCLUSION

NP's represent an exponentially growing workforce that is expected to dominate primary care (Institute of Medicine, 2011; Rauch, 2013). Mostly employer-driven, postgraduate training programs are evolving at a rapid pace to help cultivate a workforce prepared to meet the complex health challenges of patient care. This QI project hopes to provide insight about this emergent training medium for our nation's increasing primary care NP graduates. It also may serve those who are working on standardization and accreditation of NP postgraduate training programs.

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INDEX OF ABSTRACTS

NURSING RESEARCH COUNCIL CHARTER

PURPOSE

In sync with the mission and vision of the medical center, the Nursing Research Council promotes the development, designing, implementation, coordination and reporting of research to nursing staff throughout the medical center.

The purpose of the Nursing Research Council is to encourage research for nurses at Montefiore by: (1) Reviewing nursing research opportunities; (2) Supporting the nursing department on matters pertaining to nursing research; (3) Mentoring nursing staff to conduct research; (4) Implementing and coordinating funded and unfunded nursing research activities; (5) Coordinating the yearly nursing research symposium and publishing a yearly nursing research journal.

BACKGROUND

In 2011, the Nursing Research Council was created by the executive nursing leadership as part of the self-governance program at Montefiore to encourage the participation of the front-line staff in the day-to-day provision of the highest quality of care to patients. Since then, nurses seeking wisdom, learning through others, sharing experiences and teaching each other to better themselves as individuals and as professionals proudly present their research findings to a crowd of Montefiore Nurses once every year.

Evidence-based education and practice has rapidly become the benchmark for quality nursing care. At Montefiore we want to foster the growth of evidence-based practice by involving nurses at the staff level to engage in research activities. Each year the council provides educational series incorporated into its meeting's agenda to enhance the research knowledge of staff nurses representing the units in the research council's monthly meetings. The need to utilize and develop evidence-based practices in the delivery of healthcare is a mandate, which includes the patient's expectations and experience of that care. By promoting research in the clinical setting, we are not only discovering new things but are finding the best methods of implementing them. All of these are translated in the development of evidence-based practices, which in turn empowers the clinician to provide the highest quality care.

SCOPE

By incorporating the results of research into practice, not only do we encourage the development of evidence-based practices, but most importantly, we promote best practices by staff in the delivery of healthcare. The scope of this council is to:

1. Serve as a forum to review and approve nursing research ideas presented by the nursing staff.

2. Mentor nursing staff who are interested in conducting research by providing preceptors to help advise them and work with them on their projects.

3. Serve as the venue for presentation of progress of and completion of nursing research studies to the nursing staff.

4. Support the nursing department on matters pertaining to nursing research by providing input to policies from research that resulted in new evidence-based practice.

5. Coordinate and implement funded and unfunded nursing research activities as assigned to the council.

6. Coordinate the yearly nursing research symposium and publish a yearly nursing research journal.

TEAM COMPOSITION

The Nursing Research Council consists of RNs who represent different areas of nursing (units) across Montefiore, the nursing research council advisory board, the three vice chairs and the chairperson.

MEMBERSHIP ROLES

(Identify roles and responsibilities of each team member. List member name, organization, and contact information including telephone and email address, and team role if designated already. Also identify specific functional level of expertise associated with each member.)

Members will be expected to:

1. Consistently attend monthly meetings.

2. Complete brief assignments between meetings (i.e., communicate with their colleagues about upcoming research programs, collect data on their unit).

3. Participate in yearly nursing research symposium.

4. Participate in nursing research activities of the nursing department.

TEAM EMPOWERMENT

(Define existing authority the team, by virtue of its individual membership, already possesses, additional authority needed to fully perform as envisioned by the team objectives, and level of empowerment requested.)

1. The council will use information and data to drive initiatives and the work of the committee.

2. A majority, which is considered 10 members and the chair person or co-chair, must be present to conduct any formal business.

3. Decisions will be made by consensus.

4. Council members will be responsible for deliverables associated with the council's work.

5. All matters not within the scope of the Nursing Research Council will be referred to the appropriate committee or the Director of Professional Practice/Nursing Quality Officer.

6. Council members will be responsible for discussing decisions that require additional resources, with appropriate leadership within Montefiore.

TEAM OPERATIONS

1. The council will meet once a month.

2. The council will use technology (webinars, conference calls, GoToMeeting, Yammer) as appropriate.

3. Support from outside resources will be obtained on an as-needed basis.

4. The group will reach decisions by 51 percent of those present.

5. Meeting cancellations should be communicated to members one week in advance.

6. Members will communicate to council chair when they are unable to attend the meeting.

7. The council will seek expertise from the Learning Network and other organizational resources when needed.

TEAM PERFORMANCE ASSESSMENT

1. Monitor and track council attendance and minutes.

2. Collect and monitor attendance at the yearly nursing research symposium.

3. Monitor and track nursing-related research done by staff.

4. Monitor and track nursing research journal published at least once a year.

ACQUISITION MILESTONES AND SCHEDULES

1. Increase in nursing research activities.

2. Implementation of research-related educational series with continuing education credits.

3. Publication of nursing research.

NURSING RESEARCH COUNCIL AT MONTEFIORE

NOTES

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