Will changing peripheral IV sites in hospitalized adult patients when clinically indicated have comparable complication rates as scheduled routine changes?

Rebecca Muller, BSN, RN
York Hospital

Abstract
Background: Our Hospital protocol requires adult patients to have short peripheral IV sites changed every 4-6 days without regard to the integrity of the IV site. This routine site rotation is believed to decrease the risk of IV related complications such as phlebitis and infiltration in the adult population. In contrast, Centers for Disease Control (CDC) guidelines for pediatric patients support extending their use until clinically indicated to be changed. To preserve veins in adult patients with limited venous access, IV nurses at our Hospital request physician orders to leave IV sites intact until clinically indicated. These patients typically have these IV sites 10 days or more.

Practice Question: An evidence-based practice project was developed to answer the question “Will changing peripheral IV sites in hospitalized adult patients when clinically indicated have comparable complication rates as scheduled routine IV site changes?”

EBP Model: Appraisal of evidence completed using the Johns Hopkins Nursing Evidence-Based Practice Model.

Synthesis of Evidence: MEDLINE, CINHAL, PubMed, The Cochrane Review Database and industry standards were searched and resulted in 23 articles identified as potentially answering the question. Seven research articles and four non-research articles informed practice.

Practice Recommendations: There is evidence to suggest there is no difference in the risk of complications between routine IV site changes and clinically indicated IV site changes in the adult population. Clinically indicated site changes offer a cost savings and increased patient satisfaction related to decreased needle-sticks. The Intravenous Nurses Society’s Standards of Practice have adopted the practice of changing IV sites only when clinically indicted; however, the CDC continues to recommend routine site changes every 4-6 days.

Planned Practice Changes: Because of inconsistent recommendations, a research protocol to compare complication rates between patients with routine IV site changes and patients with clinically indicated IV site changes is being implemented.

References
Intravenous Catheters (1997 original, 2011 revised) York Hospital nursing policy and procedure #IV/M240
Infusion Nursing Standards of Practice. Journal of infusion nursing. (Supplement to Jan/Feb 2011), 34, 1S, 1533-1458, S57
Prevention strategies to decrease delirium in the hospitalized elderly
Heather Rivera, BSN, RN
York Hospital

Abstract
Background: Delirium occurs in 30-50% of elderly patients who are hospitalized and can lead to increased mortality, morbidity and length of stay. Staff nurses recognized an inconsistency with bedside care of the patient greater than 65 years old exhibiting delirium.
Practice Question: What is the best practice for screening and preventing delirium in the adult acute care population?
EBP Model: The Johns Hopkins Nursing Evidence-Based Practice Model (JHNEBP) was selected for evaluating the literature.

Synthesis of the evidence: The Pub-Med and Cinahl databases were searched for articles. 33 articles found and 28 were utilized in the summation table.
A nursing subgroup searched the evidence for screening tools used to identify the non-ICU patient at risk for delirium. The evidence showed that the ICU tool, Confusion Assessment Method, alone was not appropriate for the medical surgical units. The team evaluated multiple tools and determined the Nursing Delirium Screening Scale, NUDESC, was most appropriate for the RN workflow.

Practice Recommendations: A medical acute care unit was selected to pilot the NUDESC, and develop a nursing process. The design process was a unit based initiative. The practice council chair led the initiative that included design of a pre-evaluation tool, intervention checklist, door sign and education to the unit staff. The pilot study identified patients who screened positive for delirium risk.
Practice Changes: There was streamlining of the documents and recognition of the importance of pre-hospital cognition, behavior and function to differentiate the dementia baseline from new onset of delirium. The paper documentation has been integrated into the electronic record and go-live is January 28, 2013.

Results: By implementing a screening and prevention program on a specific unit, the data showed a decrease in mortality and readmissions, but a slight increase in LOS.

References
Q-BroT: A reliable and valid feeding instrument for the premature infant
Laura Bunty, BSN, RN
York Hospital

Abstract
Introduction: An increase in knowledge regarding preterm infant neurodevelopment indicates that positive infant feeding practices can have considerable short and long term impacts on a preterm infant’s ability to grow and thrive. Despite this awareness, there are limited reliable and valid instruments available that evaluate the preterm infant's feeding readiness and ability to progress. A user-friendly instrument evaluating both breast feeding and bottle feeding was designed (Q-Brot) to assess the premature infant’s readiness to eat and drive feeding advancements.
Purpose: To determine reliability and validity of the Q-Brot feeding instrument.
Methods: Following an educational program about the proper use of Q-Brot, twelve NICU staff viewed twenty-four video recordings of infants’ feeding experiences and using this instrument scored the feedings accordingly. At a later date, following education, fifty-three NICU staff viewed six videos of infants’ feeding experiences and scored them accordingly. After roughly twenty minutes, they again viewed and rescored the videos in variable order. These results determined inter/intra-rater reliability using statistical analysis. Currently face validity is being obtained by content experts. Approval was given via Wellspan Health Emig Research IRB.
Results:
First study:
- inter-rater reliability cronbach’s alpha 0.991
Second study:
- inter-rater reliability cronbach’s alpha 0.998
- intra-rater reliability cronbach’s alpha 0.976
Further evaluation is pending for validity of Q-Brot.
Conclusions/Implications: Results support strong reliability of the Q-Brot instrument. Hence, protocol/practice change using this instrument was implemented in the NICU. This new practice has stimulated collaboration between physicians and nurses to promote feeding changes in a manner that are neurodevelopmentally sensitive and suitable for the premature infant. A prospective and retrospective chart review is intended to determine what impact this change in practice may have on the premature infant’s outcomes.

References
Using the Omaha System to Measure Outcomes of Wellness Services in Nurse Managed Wellness Centers
Cheryl W. Thompson, RN, DNP
York College of Pennsylvania, The Stabler Department of Nursing

Abstract
INTRODUCTION: Nurse Managed Wellness Centers (NMWCs) are academic service settings where baccalaureate nursing students gain rich community health clinical experience while providing wellness services to a vulnerable population. The expected outcomes for NMWC patients include improved self-care, appropriate utilization of preventative and primary care services and decreased utilization of health care resources. Such outcomes are difficult to measure. The Omaha System is a documentation system that provides a framework to measure outcomes when the focus of care is wellness services.

PURPOSE: The purpose of this study was to document health outcomes for the patients who receive wellness services through NMWCs. These outcomes data document impact of NMWC services and support requests for funding that is necessary to sustain the NMWCs.

METHODS: The Omaha System was incorporated into the NMWC documentation structure three years prior to the retrospective chart review. Demographic data and Omaha System variables were abstracted from patient records at nine NMWCs. The Omaha System variables included health problems with associated ratings for knowledge, behavior and status at admission and discharge.

RESULTS: The sample included records from 375 patients and 1,244 health problems documented in those patient records. The five most frequent Omaha System problems were circulation (15.3%), health care supervision (11.1%), pain (9.7%), nutrition (9.6%) and mental health (8.9%). Paired sample t-tests for difference between knowledge, behavior, and status scores after intervention were significant (p<.05) for the Omaha System problems of health care supervision, pain, nutrition, mental health, skin, bowel function, and sleep and rest. Patients in the sample who had the lowest ratings (1 or 2 on 1 – 5 scale) at baseline had the largest percent change in knowledge, behavior and status after the wellness interventions.

CONCLUSIONS/IMPLICATIONS: The study findings give integrity to the anecdotal observations around the value of wellness services for the vulnerable population served by these NMWCs. These services may contribute to achieving Healthy People 2020 goals of promoting health and reducing disparities for underserved populations.

References


Transferring the trust: Patient safety and satisfaction enhancement through unit implementation of bedside shift report
Laurie Hldodash, BSN, RN-BC
Angela Sowers, BSN, RN-BC
York Hospital

Abstract
Background:
Miscommunication during shift report handoff may contribute to adverse outcomes for patients. Current literature suggests that bedside shift report is an effective handoff process and can provide opportunities to improve patient safety and improve satisfaction by promoting active patient participation in care.

Practice Question:
What are the best strategies for implementing Bedside Shift Report to improve patient safety and satisfaction in adult medical-surgical patients?

EBP Model:
The Practice and Leadership Committee team investigated bedside shift report and began the evidence based practice process by using the John’s Hopkins Nursing Evidence-Based Practice Model.

Synthesis of Evidence:
The team began with nursing administration shared literature, then continued the evidence search finding 63 articles. Pub Med and CINHAL databases and Google Scholar were searched using keywords nurse bedside shift report, bedside handover and bedside shift report. Twenty-two articles were found to answer the practice question. Six were non-experimental and sixteen were quality improvement, program evaluation and literature reviews.

Practice Recommendations:
- Establish a unit team to formulate the plan for changing practice
- Share existing evidence and provide education to all staff.
- Guideline development provides a standardized format to ensure consistency and accuracy.
- Report templates organize information and maintain a logical flow.
- A pilot program using senior nursing staff and champions to model behavior can demonstrate effectiveness.

Practice Changes Made:
- Unit implementation team formed
- Mandatory staff education
- Pilot June 4, 2012
- Tools utilized:
  1. Revised SBART (Situation, Background, Assessment, Recommendations/Treatments and To do list/Thank you) report template.
  2. Patient Care Clipboard
  3. Patient and family education pamphlet.
- Entire unit implementation July 2, 2012.

Results: Patient safety results for 1st and 2nd quarter FY 13 pending

References
Abstract
Introduction
There are approximately 48.4 million Hispanics living in the U.S. They comprise the nation’s largest ethnic or race minority. Over the past 10 years, York’s Hispanic population has more than doubled, from 11,296 in 2000 to 24,397 in 2010. An increasing number of non-English speaking Hispanics comprise the daily census at York Hospital and present a challenge in the delivery of safe and effective medical care.
Purpose
The purpose of this study was twofold: to explore the nurses’ perception of available methods of communication when caring for Spanish speaking patients; and to explore whether or not oncology nurses believed that care is impacted by a language barrier.
Methods
This study utilized a descriptive design. A convenience sample of 34 nurses on an Oncology inpatient unit rated their use and perceived effectiveness of existing communication tools available at York Hospital. The questionnaire utilized established Likert scales to facilitate analysis of the aggregate data. Exemption status was granted by the Institutional Review Board.
Results
Twenty two of thirty four eligible nurses (67.2%) participated in the study. Findings revealed there was an apparent disconnect between the use of available communication tools and their perceived effectiveness. Gestures and family members as interpreters were reported as the most frequently used methods of communication (63.6% and 40.9% respectively). While interpreters were rated as being infrequently used (40.9%), 77.3% of the nurses found the professional Spanish interpreters to be the most effective means of communication.
Conclusion
Qualitative responses indicate that in this cohort of oncology nurses the majority cohort perceived the care they delivered was impacted by a language barrier, and that the most effective means of overcoming the language barrier to effective communication was not the most frequently employed.

References
Abstract
Introduction
This study sought to correlate specific traits in nurses that may make them more or less likely to participate in lateral violence. Lateral violence within nursing is aggression between nurse to nurse. Examples of this aggression include sabotage, back stabbing, non-verbal innuendo, verbal affront, undermining activities, withholding information, infighting, scapegoating, failure to respect privacy, and broken confidences (Griffin, 2004). Emotional Intelligence is best defined as the ability to identify and manage emotional information in oneself and others and focus energy on required behaviors (Gordon, 2010). Emotional Intelligence is a sought after trait in many workforces.

Purpose
The positive component of having emotionally intelligent workers directly counteracts the behavior seen in those nurses who participate in lateral violence. No studies had been done to correlate the two, lateral violence and emotional intelligence, to promote emotional intelligence education in nurses.

Methods
A questionnaire was given to the nursing staff at a community hospital with approximately 106 inpatient beds. Within the two week time frame 71 anonymous nurses responded out of 360 nurses invited. The TEIQue-SF questionnaire for emotional intelligence was used along with additional questions that asked specific scenarios that the nurse may have encountered in the past three months. These questions were answered by yes or no and measured the nurse’s participation in lateral violence.

Results
The research showed a -0.32 correlation using the Pearson r correlation coefficient. This negative correlation shows that those nurses who have a higher emotional intelligence level are less likely to participate in lateral violence.

Conclusions/Implications
This information can now be used in seeking improved work environments and as an educational opportunity for all nurses. The research is also a basis for a correlation of this trait and this behavior that can be available for further research.

References
Collaboration Fosters Communication: A Multidisciplinary Evidence-based Practice Project to Ease Communication for Patients in a Trauma Intensive Care Unit

Kelli Eldredge, RN, MSN, CCRN
Kelly Cousineau, MA, CCC-SLP
York Hospital

Abstract
Background: Difficulty with communication ranks as one of the most distressing symptoms of the intubated, critically ill patient. Frustration, lack of control, physical discomfort and effects on patient recovery and length of stay can result. A trauma patient and family advisory council identified this as a major concern during their hospitalization. An evidence-based practice project was initiated to address the issue.

Practice Question: “What is the best augmentative/alternative communication (AAC) method for communicating with intubated patients in the trauma intensive care unit?

EBP Model: Johns Hopkins Nursing Evidence-based Practice (JHNEBP) model

Synthesis of Evidence: CINAHL, Medline, and PubMed databases were searched using the keywords: augmentative/alternative communication, intubated patients, and intensive care unit. Approximately 35 article abstracts were reviewed and 22 met inclusion criteria for further evaluation. Fifteen articles were relevant and of good or excellent quality based on JHNEBP criteria. Evidence included a quasi-experimental study, three non-experimental studies, a qualitative study, four studies using both non-experimental and qualitative methods, two systematic reviews, a literature review, and an expert opinion article.

Practice Recommendations: Recommendations for practice included development of individualized communication care plans, development of a communication board, and collaboration with speech-language pathologists to develop effective communication methods.

Practice changes planned/made: Speech-language pathologists and nurses collaborated with the trauma patient and family advisory council to develop an appropriate communication tool. The council decided on picture boards based on ease of use for trauma patients. These boards are available in all rooms in the trauma unit for use by patients, families, and healthcare providers.

Results:
Communication boards are an effective method to facilitate communication between intubated patients and their families and healthcare professionals. Further research should be conducted to link use of communication boards to outcome variables such as pain management, duration of mechanical ventilation, and patient, family, and nurse satisfaction.

References
Abstract
Introduction: Cardiovascular Disease is the leading cause of death in the United States. Lack of physical activity, obesity, and smoking are proven risk factors and these are more prevalent in groups with lower income and socioeconomic status.

Purpose: Research has shown that nurses play a crucial role in influencing and changing health behaviors. Upon invitation of the local Circles group, baccalaureate senior nursing students presented information on health topics, including cardiovascular disease and prevention. This program was provided over a 6-month period, from March to October 2011. The purpose of this program was to improve the health promoting behavior of the participants in the Circles Out of Poverty Group.

Methods: In spring 2011, a pre-test Healthstyle Self-Test was administered to Circles group members. Through the next six months, nursing students presented a variety of topics including cardiovascular disease prevention, the importance of exercise, diabetes prevention, gastrointestinal health and disease, health literacy, low sodium and programs to assist those in need. In fall 2011, the Healthstyle Self-Test was re-administered.

Results: Comparative Healthstyle scores from pre- to post-test demonstrated improvement in four of six health behaviors (cigarette smoking, eating habits, exercise and fitness, and safety).

Conclusions/Implications: Nurses are well equipped with knowledge and skills to educate and promote healthy lifestyles. The interaction between the nursing students and local ‘Circles’ group appears to have benefited some members, leading to healthier lifestyles.

References

Got Narcan? Pain Control Without Over-Sedation is POSS-able.
Cristina Brooks RN, BSN, CPAN
Karen Dykstra RN, BSN, CPAN
York Hospital

Abstract
Background: There is no standardized policy to determine when the post-operative patient in the Post Anesthesia Care Unit (PACU) is ready for discharge from PACU based on pain and level of sedation. PACU staff has varying levels of experience influencing nurses’ decision of when the patient is able to leave the PACU, with the final authorization from a licensed anesthesiologist. Patients may be held in PACU due to inconsistency in treating pain, often related to the nurse’s assessment of the patient's acceptable pain level. Continued opioid administration may lead to opioid-induced over-sedation and/or respiratory depression. Prolonged length of stay in the PACU may also delay care for other post-operative patients, delay reuniting the patient with their family members, and delay discharge of outpatients.

Practice question: What is the best sedation tool to manage the non-ventilated phase one (PACU) patient?

EBP Model: A team of nurses reviewed the evidence using the Johns Hopkins Nursing Evidence-Based Practice model.

Synthesis of evidence: PubMed and CINHAL databases were searched using the keywords: sedation, sedation-scale, pain management, and sedation monitoring. Eight articles were identified. Of those, four were of good quality to answer the EBP question. There were two research and two non-research articles to inform the evidence.

Practice Recommendations: The Pasero Opioid-Induced Sedation Scale (POSS) was identified as a reliable and valid scale to measure sedation for non-ventilated post-operative patients receiving opioids.

Practice Changes Planned: The team plans to implement the POSS in the electronic healthcare record for use with all non-ventilated post-operative patients.

References
Reducing Catheter Related Blood Stream Infections
Rose Rupert MS, CCRN, CRNI
Memorial Hospital

Abstract
Practice Question: Is there a decrease in catheter related blood stream infections with the implementation of a central line bundle?
Background: Catheter-Related Bloodstream Infections (CRBSI) can be devastating to the patient and burden health care costs. The goal of all health care facilities is to achieve and maintain “Zero” catheter related bloodstream infections. Infection rate was 4 %. From July of 2011- July 2012 there has been zero CRBSI. Prior to these interventions there was no central line bundle. Since the implementation of the bundle there has been a decrease of 96.2% in central line blood stream infections.
Synthesis of Evidence: The John Hopkins Nursing Evidence Based Practice Model was used to conduct a literature review on the prevention of catheter related infections. Articles were found using key words: central venous catheter, central line bundle, blood stream infection, Chlorhexadine, Biopatch. MEDLINE, Pub Med, Google Scholar were search engines used to find articles. A total of 150 potential articles found of that 26 were deemed applicable (6) level 1, (3) level II, (4) level III and (8) level IV and (5) Level V.
Practice Change:
Based on the results of this data the implementation of the central line bundle has enhanced the care we provide to our patients with central venous catheters. To maintain zero CR-BSI our changes were:
1. Maintain a catheter related blood stream prevention team (CRBSPT).
2. Develop patient education teaching materials.
4. Offer education for nurses and physicians.
6. Update policies incorporating best practices.
Result: Since implementation of the CR-BSPT in April 2009 and incorporating the central line bundle into practice; as of July 2011 to July of 2012 our hospital has reached Zero CR-BSI.

References
Lateral Violence Among RN's
Melissa Miller RN-BC, BSN
Cynthia Stermer, MS, RN-BC, ACNS-BC
York Hospital

Abstract
Background:
Lateral violence is detrimental to the physical and emotional well being of patients and healthcare providers. Lateral violence in the workplace also has an adverse affect on positive patient outcomes as reported in the AACN position statement on workplace violence prevention, 2004. Lateral violence has been shown to affect morale, stress, turnover rates, sick call and lost wages. The National Database for Nursing Quality Indicators survey on RN satisfaction although still above the mean has shown a slow decline in RN-RN interactions at York Hospital. Lateral violence was questioned as a possible contributing factor.
Practice Question:
What are the best tactics to allow RN's to recognize and respond to bullying from other RN's?
EBP model:
An interdisciplinary team was developed to address the issue of lateral violence. The EBP project was conducted using the John's Hopkins Evidence-based Practice Model.
Synthesis of Evidence:
Fifty-five articles were found using PubMed and CINAHL data bases with the keywords bullying, lateral violence and horizontal violence. The team reviewed 28 articles answering the question Eleven articles were excluded for poor quality. There were four research articles and 13 non-research articles.
Practice recommendations:
Practice recommendations included developing a plan to decrease the incidence and severity of lateral violence by: 1) define lateral violence, 2) perform an organizational assessment, 3) start an awareness campaign, 4) provide consistent education to leaders and staff including scripted responses and role playing, 5) define consequences of bullying, 6) have a reporting system, 7) encourage open communication, 8) seek resources that support staff with behavior influenced by physical or mental pathologies, and 9) develop a zero tolerance policy.
Practice changes planned/made:
An organizational assessment was completed through a research survey. Results of the survey will determine next steps.

References
Abstract
Background:
Staff injuries from transferring and mobilizing patients have increased, causing employee absences, personal suffering, extended leaves, over-time for other staff and a financial burden to the hospital. This prompted a multidisciplinary group to review our safe patient handling and movement policy. The vague policy did not provide clear direction related to staff training and competency validation. Our aging healthcare workers have a higher risk for musculoskeletal injuries, and 30% of our patients are now Bariatric. There is evidence that using a mobility assessment tool, appropriate equipment, and safe patient handling techniques can prevent or reduce injuries. Educational and administrative support is essential to promote a true culture of safety for patients and staff.

EPB model: The Iowa Model of Evidence-Based Practice to Promote Quality Care

Evidence:
Using a systematic review of research and published consensus guidelines we were able to develop a safe patient handling and mobilization program. Databases included CINAHL and Pub Med. We reviewed nine articles with 3 Level III, 3 Level IV and 3 Level 5 strength of evidence scale. The overall strength of the evidence was good.

Practice Recommendations:
Patient assessment with use of a mobility tool and transfer training with use of equipment on orientation and annually.
Identify a peer leader on each unit to monitor appropriate patient transfer techniques and report directly to nursing manager.
Develop a policy with guidelines for education, monitoring and evaluation with annual performance appraisal.

Outcomes:
Staff injuries will be less than 5 per year
Financial costs will be reduced by 50% based on those injuries occurring during transfers

References
Abstract
Will a nurse leader driven initiative working to improve communication and collaboration amongst physicians and nurses be successful in transforming the culture within a community hospital?

Background: It has been shown that ineffective communication contributes to unsafe patient care. Ineffective nurse-physician communication has been linked to poor patient outcomes and patient safety issues. Collaboration among health care professionals is essential in order to deliver the best quality of health care. Collaboration alone does not change the patient’s outcome. There has been a great deal written about the importance of a nurse-physician partnership. Lack of a nurse-physician partnership contributes to ineffective communication among care givers in hospitals. Ineffective communication can lead to medical errors, adverse patient outcomes, increased cost of care, and increase in nurse turnover. Communication and collaboration has been proven to play an important role in the healthcare setting.

Synthesis of evidence: PubMed and Cinhal databases were searched, 25 articles were reviewed and 21 were utilized in the Overall Evidence Summation: four experimental, five non-experimental, three quasi-experimental studies; nine level III qualitative. All studies were of good quality based on the JHNEBP model. Practice recommendations: The evidence suggest: Nurses and providers should be provided with education on collaboration and communication during orientation and ongoing; Interprofessional education should be designed and used to incorporate learning activities for nursing and providers which should include discussions, simulations, and role playing. There should be collaboration between nurses and providers for the purpose of team building.

Practice changes planned:
1. Evaluate Providers and nurses on communication and collaboration behaviors prior to implementing the program.
2. Plan and offer classes two to four times per year to the medical and nursing staff, using patient case studies to discuss the evaluation, differential diagnosis, and plan of care from both perspectives.
3. Evaluate communication and collaboration in 3 months and 6 months by repeating the assessment.
4. Hardwire collaboration into the culture of hospital
5. Implement a nurse-physician liaison committee

References
Will Implementation of Sepsis Protocols Decrease the Incidence of Patients Who Transition from SIRS to Severe Sepsis/Shock?
Peggy Veron, BS, RN, CEN
Christy Durham-Snyder, BS, RN
Memorial Hospital

Abstract
Sepsis is the 10th leading cause of death in the U.S and causes longer hospital stays, higher costs, and permanent deficits in those who survive. SIRS (systemic inflammatory response) can rapidly change to sepsis and then progress to severe sepsis/shock. Evidence demonstrates that early recognition of the transition from SIRS to sepsis is critical to saving lives. By recognizing early sepsis and communicating that information to the physician promptly, nurses can stop progression of the disease and many lives can be saved.
PICO Question: In the patient presenting during hospitalization with symptoms of SIRS, does the implementation of sepsis protocols reduce severe sepsis incidence?
EBP Model & Synthesis of Evidence: A comprehensive literature search was conducted using the John Hopkins Nursing Evidence-based Practice within CINAHL, PubMED, and hand searches. Search terms included: sepsis interventions, sepsis protocols, surviving sepsis campaign. Initially over 76,346 articles were found with 22 articles selected as most applicable to our practice question. The level of evidence includes: level 1a – 4; 2B – 2; 3A – 2; 3B -8; 4a – 2; 4B-1.
Practice recommendations: Develop sepsis protocols to ensure early recognition of sepsis and consistent, prompt treatment to prevent severe sepsis/shock.
Practice changes planned/made: Sepsis order sets were developed for uniform response to patient’s presenting with sepsis throughout the hospital. A checklist was developed using best practices to guide nurses in assessing patients and recognizing the early signs of sepsis. Nurses were educated on sepsis, provided with an overview of sepsis and a copy of the sepsis checklist.
Results: Sepsis protocols were developed which included a sepsis checklist, sepsis overview, mandatory sepsis education for all staff aimed at reducing the number of severe sepsis cases in our hospital. Sepsis order sets were developed to ensure implementation of best practices using early goal directed treatment for the septic patient.

References
Abstract
Background of problem: Our current practice involves limited use of the electronic health record for orders, medications, and documentation. The staff report that pertinent information was being omitted in nurse to nurse hand off communication which adversely impacted patient care. The NICU team desired a more standard hand off tool that is efficient and that would meet the Joint Commission guidelines.

Practice Question: What are the best practices for nurse to nurse hand off communication in the NICU setting?

EBP Model: The Johns Hopkins Nursing EBP model

Synthesis of Evidence:
Level III (Non-experimental):
Utilize a standardized tool, Minimize interruptions, Report time must be respected
2 References were reviewed with 2-B ratings.

Level IV (National Organization/Opinion):
Utilize a standardized tool, Tool should give the purpose of report, The tool should be family based
1 Reference was reviewed with a B rating.

Level V (Expert Opinion)
SBAR format for tool, JC recommendations utilized, Standardization of tool, Barriers addressed, Family involvement included, Bedside equipment checks included in tool,
Education of staff
15 References were reviewed: 10-A ratings
5-B ratings.

Practice Recommendations: best practices included using a standardized tool, SBAR, bedside reporting, minimizing interruptions, family involvement and utilizing an electronic format. We incorporated these themes when creating our tool.

Practice changes planned/made: a Microsoft Excel format is currently being developed to fill the void between the present and implementation of the Neonatal Electronic Health Record. Laptop computers have been secured to be used during nurse provider rounds. An educational plan has been developed to facilitate the practice change in the unit.

Results: Our results are pending implementation of tool.

References
Abstract
BACKGROUND: Animal-assisted Therapy is an intervention that has historically been beneficial to human health and well being. The human animal bond provides a healing power that enhances individual well being and promotes solace and relief from both physical and emotional pain. As an adjunct intervention, animal-assisted therapy is a way of promoting well-being across the healthcare continuum. Animals provide a calming presence and can be a powerful therapeutic modality. Their presence promotes endorphin release which has been shown to decrease both physical stress and pain. Other benefits of animal-assisted therapy to a patient’s physical health include lowered blood pressure, improved cardiovascular health, and improved nutritional intake. In addition to stress reduction, other mental health benefits include patient reports of decreased feelings of depression, isolation and alienation. Animal-assisted therapy visits have been shown to encourage communication, provide comfort and increase socialization.
PRACTICE QUESTION: What is the impact of animal-assisted therapy on patient outcomes in the healthcare setting?
EBP MODEL: The Johns Hopkins Nursing Evidenced-Based Practice Model was used to review and analyze evidence.
SYNTHESIS of EVIDENCE: The databases Pub Med, CINAHL, Google Scholar, Sagepub were searched using key words “health benefits” and “stress” and “social support” and pet-facilitated therapy”
EVIDENCE
Strength of the Evidence
Number of Articles
Grade/Rating
Level I:  5; 1-A, 2-B, 2-C
Level II:  5; 2-A, 2-B, 1-C
Level III:  2; 1-B, 1-C
Level IV: None
Level V:  9; 7-B, 2-C
PRACTICE RECOMMENDATIONS
Further research is needed to determine the immediate and long-term effects of Animal-Assisted Therapy in a healthcare setting. Share project findings with hospital administration and the current dog therapy visitation staff with the goal to further integrate and expand program throughout the hospital as a complimentary healing modality.

References
How do YOU know I’m hungry?
A cue-based approach to feeding the premature infant
Sherry Weitkamp, RN-CCRN
Laura Bunty, BSN, RN
York Hospital

Abstract
Background
Recently there has been an increased awareness in feeding aversions and failure to thrive in the premature infant population. The NICU at YORK Hospital currently uses a physician driven feeding practice, which is volume focused to achieve adequate nutrition regardless of the infants’ readiness or ability to successfully feed.

Practice Question
Is cue-based feeding an appropriate and safe approach to guide and advance feeds for the premature infant, and are tools available to assess feeding readiness?

EBP model
We used the Johns Hopkins Nursing Evidence-Based Practice Model.

Synthesis of evidence
We performed a literature search and identified eight articles relevant to our practice question.

Practice Recommendations
• The literature suggests that infants are able to safely suck-swallow-breath consistently as early as 32-33 weeks gestational age. Infants are also able to elicit “readiness to feed” behaviors and drive their feeding progression.
• Early introduction to oral feeding may lead to earlier achievement of full oral feedings, when initiated based on infants’ cues.
• Using infant cues to guide practice will promote a safe and positive feeding experience.
• There is a shortage noted in the literature of reliable and valid tools to assess infant feeding cues and help guide practice for safe feeding advancement.
• Physician driven feeds are associated with orally defensive behaviors and may further inhibit feeding skill development. This may delay progression to full feeds and increase hospital length of stay.

Practice Changes
A multi-disciplinary team was identified and worked towards creating an effective tool for our unique population. We surveyed nurse’s knowledge and attitudes regarding premature infant feeding. Policy changes were put into effect and staff education was implemented to assure proper use of the new feeding tool.

References
Age Specific Needs of Young Women With Breast Cancer
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Andrea Wolf DNP, CRNP
York College of Pennsylvania: The Stabler Department of Nursing DNP Program

Abstract
Background: Yearly, 20% of those diagnosed with breast cancer are under the age of 45 (Adams, 2010; Axelrod, 2008). Currently, education and resource materials fail to address age specific needs for this group both before and after treatment (Bloom, 2008; Budin, 2008).
Practice Question: Do women under the age of 45 years, who are diagnosed with breast cancer, value and utilize comprehensive breast cancer information presented via an internet site?
EBP Model: The Knowledge to Action Translation Model was used.
Synthesis of Evidence: A literature search was completed using CINAHL, PubMed, Cochrane, Google Scholar, and MDConsult using keywords of breast cancer, young women, age-specific needs, and support. Fifteen articles revealed the following themes for women under the age of 45 with breast cancer:
• Women under age 40 use the computer for health information and education. (Cho, J. et al. 2011)
• Young women (under age 45) with breast cancer do not feel their needs related to fertility, life balance, body image, dealing with children and maintaining normalcy are addressed adequately (Adams, 2010; Axelrod, 2008; Bloom, 2008; Budin, 2008; Cho, 2011).
• Young women expressed interest in being educated so they can jointly make decisions related to their health (Budin, 2008; Cho, 2011).
Practice Recommendations: Create and market easily accessible, comprehensive education and support materials to address the specific needs of young women with breast cancer identified in the literature.
Practices Changes Planned/Made: A comprehensive, internet-based resource was developed for young women with breast cancer. A pilot version of the resource is currently available for patient use via healthcare facilities and breast cancer organizations throughout Central Pennsylvania.
Results: Currently, data are being collected related to ease of use of the resource, likelihood to recommend to others, demographics of users, and perceived value of the information. The final data analysis will be completed in March 2013 using descriptive and non-parametric statistical measures to examine the reviews and input of the resource users.

References
Moving to the Bedside: Bedside Reporting at Change of Shift
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Abstract
Background: The issue that surrounds a poor change of shift report is complex. Change of shift report can be redundant, time consuming, and incomplete. According to The World Health Organization (W.H.O) (2007), a breakdown in communication was identified as the leading cause of sentinel events reported to the Joint Commission between the years of 1995 to 2006 in the United States. With each hand-off of care, the patient is placed at an increased risk of receiving improper treatments or harm (World Health Organization, 2007).

PICO: Does performing change of shift report at the bedside on a medical-surgical unit using SBART (Situation, Background, Assessment, Recommendation, Teachback) method increase communication and decrease reporting off time?

EBP Model and Synthesis of Evidence: The John’s Hopkins model was used to conduct a review of current literature. Key terms: nursing report, bedside report, reporting off, hand off communication were used in CINAL, Pubmed, and Google scholar. Additionally articles were limited to publication in the last 5 years, English, and acute care setting. A total of 187 articles were found, of those 12 (1 = III , 3 = IV , 8 = V) were deemed pertinent to the topic.

Practice Recommendations:
• Report involves oncoming, off-going and patient during information sharing
• Quick scan of the environment,
• Time to ask/answer questions should occur.
• Important assessment information
• Updating communication boards

Practice Changes: Report was moved from a secluded room to the bedside for major shift changes, white boards are updated at this time and patient involvement depends on timing of report. SBART report forms were placed in all patient rooms.

Results: Since the implementation overtime (leaving after end of shift) has been decreased. Antidotal remarks from include increased organization, consistency, and comprehensive report.

References
Abstract
Background: Moisture Associated Dermatitis (MAD) is a problem not only nationwide but also within our own ICU that affects adults incontinent of urine and/or stool. In one circumstance, a patient’s skin barrier was broken due to incontinence which led to severe MAD. From this incident, our nurses questioned if the care we provided was based on evidence and sought to improve patient outcomes by identifying best practice to prevent and manage MAD.

Practice Question: What is the best treatment for Moisture Associated Dermatitis (MAD) in the adult patient?

EBP Model: The Johns Hopkins Nursing Evidence-Based Practice Model and guidelines were used by a team of ICU nurses to appraise the literature.

Synthesis of Evidence: PubMed database was searched using keywords incontinence associated dermatitis, skin care, and wound care. The search identified thirty-eight articles. Fourteen articles were reviewed for the question. Of those, thirteen were relevant and of good quality to make practice recommendations. One was a randomized control trial, one quasi-experimental, two articles summarizing outcomes of a consensus panel, one quality improvement study and eight literature reviews.

Practice Recommendations: The best treatment for MAD in the adult patient is prevention. This includes turning patients every two hours or less, keeping skin clean and dry, and resolving the reason for the incontinence. The use of one-step cleansing systems with moisturizers is preferred over soap and water.

Practice Changes Planned: The team’s next steps are to collaborate with the local wound care nurse expert and revise our policies and procedures to prevent MAD as well as management of MAD when it does occur.

References
Graduated Compression Stockings: Can education on proper use and sizing prevent heel and foot skin alterations?

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Abstract
Background – Hospitalized medical and surgical patients, especially post orthopedic surgery, are at risk for the development of deep vein thrombosis (DTV) and pulmonary embolism (PE). Graduated compression stockings (GCS) used separately or with anticoagulants help prevent the development of DVTs. Nurses have the impression that there is no risk associated with the use of GCS. However, when used incorrectly GCS can be harmful by causing a skin alteration to the patient’s heel or foot.

Practice Question – Will education regarding proper sizing and use of graduated compression stockings prevent heel and foot skin alterations?

EBP model – John Hopkins Nursing Process for Evidence-Based Practice

Synthesis of evidence – A literature research was conducted in Medline, CINAHL, Google scholar, and Cochrane Database. Search terms included: graduated compression stockings, sequential compression devices, deep vein thrombosis, TED hose. 22 articles published from 2007-2012 were narrowed to 13. Evidence-based practice has suggested proper use and sizing of GCS, policies and procedures changes including skin inspections, removal of GCS, and staff and patient education are necessary to prevent heel and foot skin alterations. Literature suggests physicians assume that nurses know how to properly measure and maintain the use of GCS. Policy and procedures must be up-to-date for staff to know how to properly measure and maintain the use of GCS. It is important to have policy and procedures current for staff to know how to properly measure, use, and perform routine skin inspections. When discharged, patient education is important to ensure compliance.

Practice recommendations – The results indicate that when policy and procedures are updated and specify proper sizing and use of GCS the risk of skin alterations will decrease. The nurses ability to use proper sizing, perform routine skin inspection, and provide patient education regarding compliance upon discharge will allow the GCS to be beneficial and not harmful.

References
Emergency Department Standing Orders Abdominal Pain: Improving Throughput in the Emergency Department
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Abstract
Background: Emergency Departments (ED) experience overload and crowding. Abdominal pain is the number one chief complaint and those patients tend toward long bed times. Female abdominal pain patients of childbearing capacity must have a pregnancy test (beta Hcg) results prior to ordering CT scan. Delay in obtaining lab results causes delay in ordering CT scans. Standing orders for abdominal pain patients are available for use by ED nurses.

Practice question: Does early initiation of standing orders for female abdominal pain patients of childbearing capacity decrease the time from triage to beta Hcg results available?

EBP Model: An EBP project was conducted using the Johns Hopkins Nursing Evidence-Based Practice Model.

Synthesis of evidence: PubMed, CINAHL, and Cochrane databases were searched using standing orders, emergency department and/or length of stay. This search revealed 86 articles. Only nine articles answered the question. Of those, four were relevant and of good quality to make practice recommendations. One was a systematic review and three were quasi-experimental designs.

Practice recommendations: Standing orders have been found to facilitate efficient processes. The ED nurse can improve patient flow through the ED by initiating standing orders.

Practice changes planned/made: Three ED nurses piloted early initiation of standing orders. The time from triage to beta Hcg results available improved 35%. To further improve time, the fast care technician was assigned to triage. The triage nurse initiated standing orders and the technician drew lab studies immediately.

Results: With the availability of a technician in triage the average time to available beta Hcg results was 45.5 minutes or 53% improvement from the initial study. The process was subsequently extended to all abdominal pain patients.

References
Diabetes Self-Management Education in Primary Care
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Abstract
Background
Diabetes mellitus is a metabolic disorder for which there is no cure. The disease progresses over time and is characterized by elevated blood glucose levels. The incidence of Type 2 diabetes among adults 18 to 79 years old in the United States has increased three fold over the past three decades, from 493,000 new cases in 1980 to over 1.7 million in 2010.

Practice Question
In patients with type 2 diabetes mellitus (DM2), how does an office based diabetes self-management education (DSME) program compared to usual treatment influence control of DM2 as evidenced by lowering of A1C, weight, and blood pressure?

EBP Model
The Re-Aim Translation Model was utilized in this project. The RE-AIM dimensions include reach, efficacy/effectiveness, adoption, implementation, and maintenance.

Synthesis of Evidence
The CINAHL, Cochrane, and PubMed databases were searched for articles relevant to the topics of interest. Key words used were “diabetes,” “self-management” and “education”. The search was filtered to seventeen articles that were appropriate.

There is strong evidence that DSME in the primary care setting decreases A1C values.1-3
A review of the literature shows that DSME has variable outcomes regarding weight loss.2
There is some evidence that DSME helps to lower blood pressure.3
There is minimal evidence that DSME lowers LDL levels.4

Practice Recommendations
A DSME program in the primary care setting can decrease A1C values.

Practice Changes Planned/Made
A two session DSME program was developed and implemented in a local primary care office. The first session includes an overview of DM2, complications, medications and physical activity. The second session reviews nutrition and carbohydrate counting.

Results
The results will be analyzed after the final patient has been seen for DSME. The analysis, including a t-test for dependent samples, will take place between December 2012 and April 2013.

References
Facilitating Student Success in Online Nursing Education
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York College of Pennsylvania—Retired faculty

Abstract
Background (problem or why topic is an issue): Many colleges and universities across the United States are offering fully online, blended, and web-facilitated courses in addition to traditional face-to-face courses. This is due to the need to stay competitive and make education more accessible to a growing and diverse student population. Online courses offer new and exciting opportunities to enhance the learning environment for students. There is limited evidence on best teaching practices and student outcomes in online courses.

Practice question: What are the best teaching practices to facilitate student success in online nursing education courses?

EBP model: The Johns Hopkins evidence based nursing model was used for this project. The search engines used were Google Scholar, CINAHL, ERIC, ProQuest, and Ebscohost. Key words used in the search included best practices, online education, online learning, online nursing education, web based education, and online teaching and learning.

Synthesis of evidence: There is a dearth of research literature on best practices for teaching online nursing educational courses and student outcomes related to online education. Twenty-three level 5 journal articles were located. Thirteen, level 3 articles were located, with three being qualitative studies and the rest nonexperimental studies.

Practice recommendations: Based on the lack of research evidence in the literature at this time, it is recommended that further studies need to be initiated related to the present best teaching practices. Research studies also need to be implemented related to measuring student outcomes of online nursing educational courses.

Practice changes planned/made (if applicable): There is a lack of research support to make substantial changes related to teaching online nursing education courses. There needs to be further research on best teaching practices and student outcomes before any online educational practice changes can be recommended.

References
Screening for Low Bone Mineral Density Project in HIV-infected Men  
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Abstract
Background: HIV-infected patients are living longer and are developing low bone mineral density (BMD) that contributes to the development osteopenia and osteoporosis at an increased rate compared to the general population. Over 70% of those HIV-infected are men. A meta-analytic review of 20 studies with predominately male patients, conducted by Brown and Qaqish, (2007) revealed a 3.7 times greater incidence of low BMD compared to HIV-uninfected controls. Practice Question: Do men aged 21 and over, who are HIV-infected and receive care at Hershey Medical Center (HMC) have low BMD by screening during the course of their infection? EBP Model: The Larrabee Model for Evidence-Based Practice Change was used as the framework for this project. Synthesis of Evidence: A literature search of the prevalence of low BMD in HIV-infected men along with a literature search pertinent to the use of the Osteoporosis Self-Screening Tool (OST) and the Quantitative Ultrasound (QUS) in men was performed using CINHAL, Cochrane, and PubMed databases. Practice Changes Planned/Made: Screen for low BMD and refer those men found to be at risk by either or both screening methods for a hip and spine dual-energy x-ray absorptiometry (DXA). A convenience sample of 221 HIV-infected men was selected and screened using the OST method. One hundred and sixty-five of these men were also screened using the QUS method. Results: The 221 men screened by the OST method indicated 63 men (28.5%) with low BMD. Only 165 of the 221 men were screened by the QUS device and 55 men (33%) were found to have low BMD. Thirty-seven men went on to be screened by DXA, 11 men have osteoporosis, 18 men have osteopenia and 8 have normal BMD. Practice Recommendations: Include low BMD screening as a Standard-of-Care for all HIV-infected patients who receive care at Hershey Medical Center.

References
Reducing 30 day readmission rates for patients with COPD: An evidence-based approach
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Abstract
Background: Chronic obstructive pulmonary disease (COPD) is a chronic disease process. Patients frequently present with acute exacerbations resulting in utilization of healthcare services. On average, a patient with COPD will experience one to three exacerbations per year; some of which may have been preventable hospital readmissions. The diagnosis of COPD accounts for 25.9% of patients readmitted to the hospital within thirty days of discharge. By implementing current evidence-based practice interventions, the facility will aim to reduce COPD thirty day readmissions.

Practice Question: Will a bundled implementation process including post discharge follow-up, smoking cessation information, vaccinations, and patient education, reduce thirty day hospital readmissions for COPD patients in a community hospital?

EBP Model: The Johns Hopkins Nursing Evidence-based Practice Model was used for leveling the evidence while the Ottawa Model was used for translation of practice recommendations.

Synthesis of evidence: A literature search was conducted with key search terms: COPD/chronic obstructive pulmonary disease with readmissions, rehospitalizations, reduc* and thirty day readmissions within CINAHL, Cochrane Reviews and hand searches. Out of 1309 articles, twenty-four were deemed relevant to the study. Articles were limited to English language, COPD specific, peer review journals after 2005, and quality of A or B. The level of evidence includes: level I= 10, II= 1, III= 4, IV= 2, V= 7.

Interventions may slow the disease progression and decrease unnecessary readmissions. Evidence-based approaches include: smoking cessation; influenza and pneumococcal vaccinations; use of long acting beta adrenergics, patient education; post hospitalization referrals; advanced care planning; and patient specific care plans.

Practice Recommendations: A bundled approach:
- 48 hour follow-up telephone calls
- Smoking cessation information
- Influenza and pneumococcal vaccine administration
- Proper inhalation technique with teach-back
- Standardized patient education packet
- Home health referrals

Results: Data dissection will conclude February 2013 to determine the effectiveness of reducing thirty day readmission rates.

References
Role of Hand Hygiene Methods on Hospital Acquired Infections Prevention and Better Patient Care Outcomes
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Abstract
PICO Question: Importance of increasing alcohol based handrubbing (ABHR) in healthcare settings to prevent hospital acquired infections (HAI).
Background: HAI increase death rates, lengths of stay, total billing, and demand on healthcare providers (HCP) (Schwegman, 2009). Hand-hygiene (HH) is paramount in reducing hospital acquired infections. Even with adherence to HH protocols HAIs continue to occur. Research has proven the efficacy of ABHR compared to other HH techniques. Healthcare providers (HCP) should be encouraged to use ABHR over other HH techniques unless contraindicated.
Problem: HAI
Intervention: Increasing ABHR.
Comparison: Using other hand-hygiene techniques that are recommended for hospitals.
Outcome: Reduced HAI rates.
Practice Question: Does increased ABHR among HCPs reduce HAI?
EBP model: The Johns Hopkins model.
Synthesis of evidence: A literature search conducted on Pubmed/Medline, CINAHL, and Cochran yielded 7000 hits using keywords ABHR and HH; twenty articles were reviewed. (5)-level evidence, (6)-level II, (2)-level III, and (4)-level IV were used in investigating the PICO question. Handwashing with soap and water is preferred when hands are visibly soiled; ABHR is preferred when not visibly soiled and should contain 70-90% alcohol to kill bacteria (Trick et al., 2007). One randomized trial in handrubbing versus handwashing with antiseptic soap revealed reduction in contaminates were greater with handrubbing than with hand antisepsis with 4% chlorhexidine gluconate soap (Picheansathian, 2004). Several studies demonstrate ABHR lowered the number of multi-drug-resistant pathogens retrieved from the hands more effectively than handwashing with soap and water (Allegranzi, and Pettet, 2009). The literature reveals ABHR is a major step in reducing the spread of infection.
Practice recommendations:
Ongoing education, annual competency on HH/ABHR, visual-aids, monthly reporting of HH compliance and infection rates by managers(Allegranzi and Pittet, 2009), and increasing ABHR stations on units. Practice changes planned/made: Add more HH ABHR sanitizers around the hospital.

References
Implementation of developmentally appropriate screening tool for substance abuse among teens.
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Abstract
Problem: Data from 2008 Monitoring the Future study reveals that nearly 72% of our youth have consumed alcohol by the end of high school. Recognizing the link between alcohol abuse and injury, the Trauma Foundation requires screening for alcohol use for adult trauma admissions. York Hospital screens all trauma patients over age 15 years for alcohol use. Using the available adult screening tool CAGE did not capture at-risk behaviors of teens.

Practice question:
Is there a valid screening tool specifically for teen alcohol abuse?

EBP model:
The Johns Hopkins Nursing Evidence-based Model was used to rate the evidence.

Synthesis of evidence:
We collaborated with the Trauma Services CRNP who performed an extensive literature search. Two research articles were found for the CRAFFT Tool, the only screening tool which addresses alcohol and drug abuse.

Practice recommendations:
The CRAFFT test was found to be a valid tool for teen substance abuse.

Practice changes made:
Education for use of CRAFFT was provided to all nursing staff caring for teen trauma patients. Patients that screened positive received social service referral for "Brief Intervention" using FRAMES, education, and referral for substance abuse consult.

Results:
Ninety-six adolescent trauma patients were screened at York Hospital for substance abuse with CRAFFT from 8/15/2011-10/09/2012 revealing 48 negative and 21 positive screens. Teens screening positive are referred to social worker.

Next Steps:
Expand screening for substance abuse to all teenage patients admitted to Pediatrics during the admission assessment.

References
Knight, John R; Sherritt, Lon; Shrier, Lydia; Harris, Sion Kim; Chang, Grace. 2002. Validity of the CRAFFT Substance Abuse Screening Test Among Adolescent Clinic Patients. Archives Pediatric Adolescent Medicine, vol 156. 607-614
What is the best practice for verification of an NGT?
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Abstract
Background: Our current nursing policy requires only air insufflation to verify NGT placement. We were aware that pH assessment has also been recommended to assess placement and therefore, embarked on an evidence based practice project.
Practice Question: What is the best practice for verification of nasogastric tube (NGT) placement?
EBP model: Johns Hopkins Nursing Process for Evidence-based Practice. PET (Practice Question – Evidence – Translation)
Synthesis of Evidence: Synthesis of evidence supported abdominal x-ray to verify initial placement of NGT and pH testing for periodic determination of NGT placement. Indication for appropriate placement should yield a result of pH < 5. The use of air insufflation was not supported by evidence evaluation.
Practice recommendations: Nursing staff on two participating units were educated on pH testing of NGT aspirates and pH color charts were placed in all patient rooms. A data collection tool was developed and sent through IRB and deemed exempt. All patients with NGT have aspirate pH checked and aspirate recorded on the data collection tool every 12 hours for a period of two months. Placement was also checked with air insufflation and use of H2 blockers and oral intake was recorded.
Practice changes planned/made: The raw data is currently being analyzed by the hospital biostatistician; however, preliminary review of data revealed multiple aspirate pH results of > 6 despite proper tube functioning. Some observed variables were NPO status, acid suppressing agents, inconsistency in time of day of sample collection, and incomplete data collection sheets. A recommendation on whether to change practice to pH testing or continue with our current practice will be determined after review of data analysis.

References
Metheny N, Reed L, Wiersema L, McSweeney M, Wehrle MA, Clark J. Effectiveness of pH Measurements in Predicting Feeding Tube Placement: An Update. Nursing Research. 1993; 42(8);324-331.