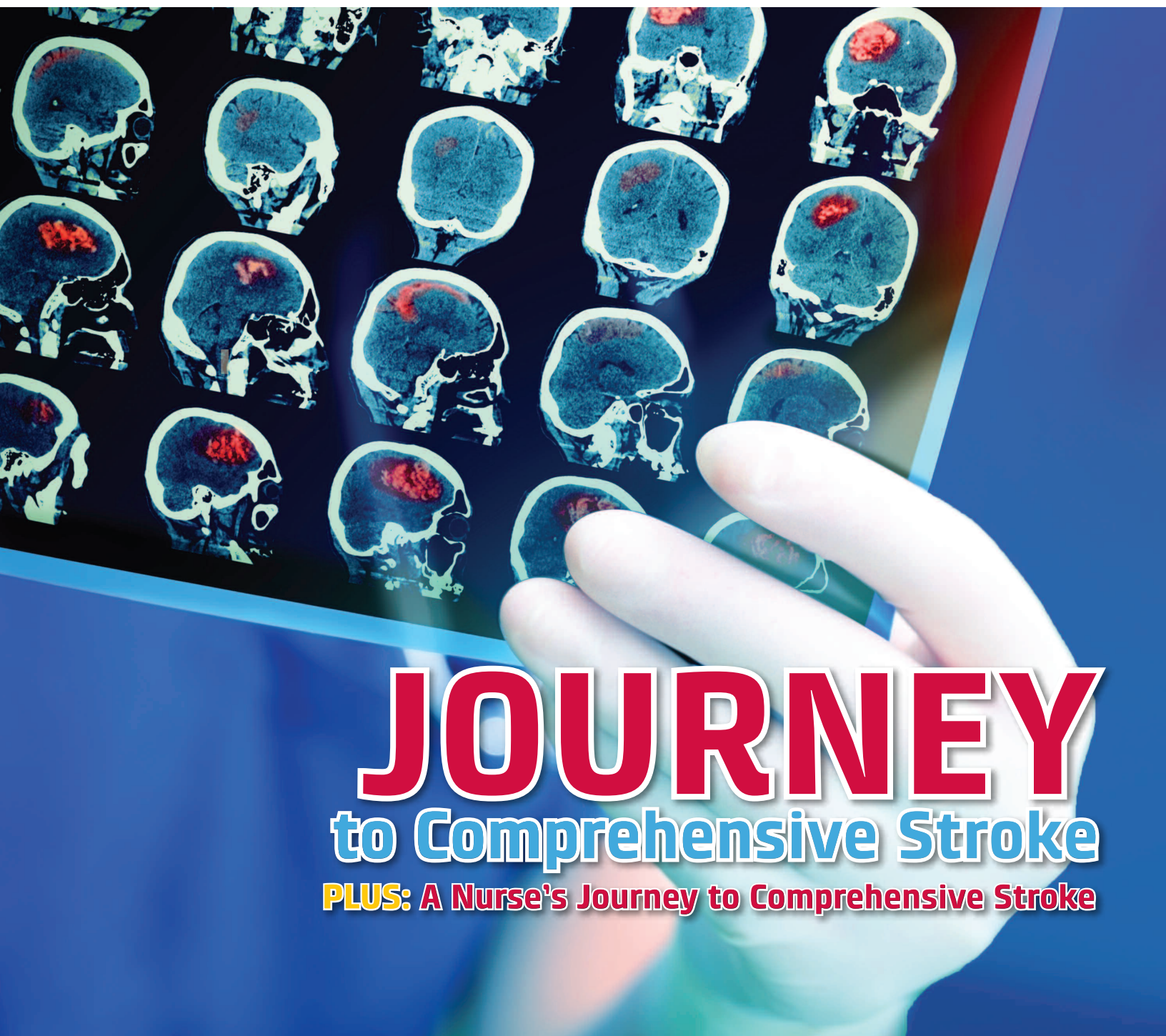


Cooper Bridges

A publication for nurses and healthcare professionals

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JOURNEY
to Comprehensive Stroke
PLUS: A Nurse's Journey to Comprehensive Stroke

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Healthcare has certainly changed over the years. Advancing technology enhances our access to data, radiologic imaging and documentation. Experience and quality metrics are publically posted and readily available to consumers. Each organization is striving to provide safe, high quality care, yet remain financially viable in these unpredictable times.

Despite these changes, one area that is consistent is nursing. You may think this is a peculiar and inaccurate statement, particularly in regards to patient acuity levels as compared to the past. Your thoughts are accurate, but acuity is not what we are specifically referencing. What we are referring to is consistency within the nursing “Process.” According to the ANA, the nursing process is the essential core of practice for the registered nurse to deliver holistic, patient-focused care (<http://www.nursingworld.org/EspeciallyForYou/What-is-Nursing/Tools-You-Need/TheNursingprocess.html>). It is a scientific method that corroborates evidenced based practice, personal interpretation and critical thinking enabling us to create a patient-specific plan of care.

There are five elements to the nursing process, which include: assessment, diagnosis, planning, implementation, and evaluation. In the assessment phase, we evaluate objective and subjective data to have a comprehensive view of the patient, not just the illness. As we move into diagnosis, we use our critical thinking skills to identify problems that arise from the disease process, which we can impact through nursing interventions. An example would be to identify a patient as a fall risk due to impaired mobility post-surgery. Planning is vital because this is patient-specific. It is essential that the plan has actionable items that will positively impact the outcome. Implementation is the follow-through on the action items as deemed appropriate. For example, when a patient is identified as a fall risk, a series of actions are implemented to avoid the fall and risk of injury. The evaluation and final step of the process is necessary to assure the intervention was appropriate. The evaluation phase also affords us the opportunity to adjust the plan if interventions were not successful in achieving the set patient goal. This is so natural for us because it is what we do, every day. Through utilizing the nursing process in our daily plan of care, we make a positive impact on safe, quality care by engaging our patients in their personalized plan and preparing them for continued recovery.

In this edition of *Bridges*, we highlight nursing practice and the nursing process. Whether patient or process focused, the method is consistent. Through assessing a situation, diagnosing the issue, developing a plan, implementing the plan and evaluating the outcome, we are providing excellent care. It is the foundation of what we do, and it continues to guide us at the bedside and in advanced practice.

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“To communicate and educate nurses and healthcare professionals to foster excellence in the delivery of patient care.”

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Managing Geriatric Hip Fracture in the Hospital

Barbara Harry, MSN, RN APN, C

Hip fractures can have devastating consequences for the elderly. Among individuals over age 65 who sustain a hip fracture, only 50 % will regain their prior level of function and nearly 25% will die within one year of the fracture (National Osteoporosis Foundation). Each year in the United States there are over 250,000 hip fractures (Roberts, et al, 2015). The annual cost of hip fractures in 2010 was estimated at nearly \$20 billion with hospital care accounting for about 57% of the total cost (Kates, Mendelson, Friedman, 2011).

Elderly patients often have multiple medical conditions such as arthritis, diabetes and heart disease. When a hip fracture occurs, additional disease states may be brought out by the injury including renal impairment, malnutrition, infection or a recent history of functional decline. A diminished physiologic reserve reduces the older individual's capacity to handle the physical stress that fracture creates, especially hip fracture. Surgical fixation of a hip fracture is not elective; without it, the individual will be unable to mobilize and can quickly succumb to the development of pressure ulcers,

venous embolism and pneumonia. Several studies have demonstrated that best outcomes for the geriatric patient are attained when care is coordinated using a multidisciplinary, patient-centered approach (Boddaert, et al, 2014). Geriatric Fracture Programs (GFP) have been developed to address the special needs of older adults with fracture. The goal of GFP is to provide optimal fracture management while minimizing complications common in the older adult.

Geriatric Fracture Programs are based on the following principles (Friedman, S, et al, 2009):

1. Patients benefit from surgical stabilization of the fracture
2. Shorter times to surgery result in less time for development of iatrogenic illness
3. Co-management of the patient by Orthopaedic Surgery and the Internal Medicine (or Geriatric Service) minimizes potential for iatrogenic illness
4. Standard protocols decrease variability and adverse outcomes
5. Discharge planning begins at time of admission

Surgery

One of the first goals of a GFP is to have the patient receive surgical fixation as soon as possible. Hip fractures are viewed as urgent conditions. Delaying surgery for tests and evaluation of underlying disease states has been shown to have limited impact on the patient's condition and does not change the fact that surgery is necessary. Preoperative optimization may have value however, for the occasional patient with correctable cardiac arrhythmia, uncontrolled heart failure, chest infection, severe anemia, severe hyperglycemia, sepsis or other acute reversible conditions (Colquhoun, et al, 2014).

Delirium

When managing geriatric hip fractures, it is important to minimize the patient's potential for delirium. Delirium is an acute state of confusion, disordered thinking and impaired attention. It can lead to adverse events such as aspiration and falls. Delirium is preventable but, when it develops, often leads to permanent functional deficits (Sarutski-Tucker, Ferry, 2014). Delirium is estimated to be present upon admission in 10% to 15% of older hospitalized patients, and up to 40% of elderly patients develop the condition during their hospitalization (Tullman, et al, 2008). Delirium is associated with prolonged hospitalization, functional decline and increased mortality. It often precipitates the need for long term nursing home care. Risk factors for developing delirium include an underlying diagnosis of dementia, the presence of vision or hearing impairments, alcoholism, surgery and the existence of multiple medical conditions. Several conditions including pain, dehydration, infection, electrolyte disturbance and use of certain medications can also precipitate delirium. While prevention is most desirable, early recognition and treatment of delirium is essential to improving outcomes (Sarutski-Tucker & Ferry, 2014).

It is important that all clinical staff are able to recognize signs of delirium. Delirium is different from dementia which is a chronic state of confusion that usually progresses over months and years. Delirium develops over a short period of time—usually hours or days. The patient with delirium may demonstrate disorientation, memory impairment and hallucinations. The patient may be unable to focus attention and may have a mental status that fluctuates between hyperactive and somnolent states; he or she may misperceive stimuli and mistake care and treatment for harm or assault.

Several tools have been developed to assist the clinician in assessing patients with suspected delirium. The most widely used include those of the Confusion Assessment Method (CAM) and CAM for the ICU (CAM-ICU). The CAM is an evidenced-based tool that enables clinicians to identify delirium quickly.

Function-Focused Care (FFC) is a philosophy of care in which staff assists patients to participate in care activities such as bathing, dressing and turning versus simply performing the task for them.



The CAM and CAM-ICU have demonstrated sensitivity of 94-100%, a specificity of 89- 95% and high inter-rater reliability (Sarutski-Tucker, 2014). The CAM instructs the clinician to assess the patient by using a set of 9 to 11 questions regarding the patient's condition. These questions address acuity of the confusion, abnormalities of attention, disorganized thinking, level of consciousness, disorientation, memory impairment, perceptual disturbances and the presence of psychomotor symptoms (see CAM-ICU method for delirium recognition).

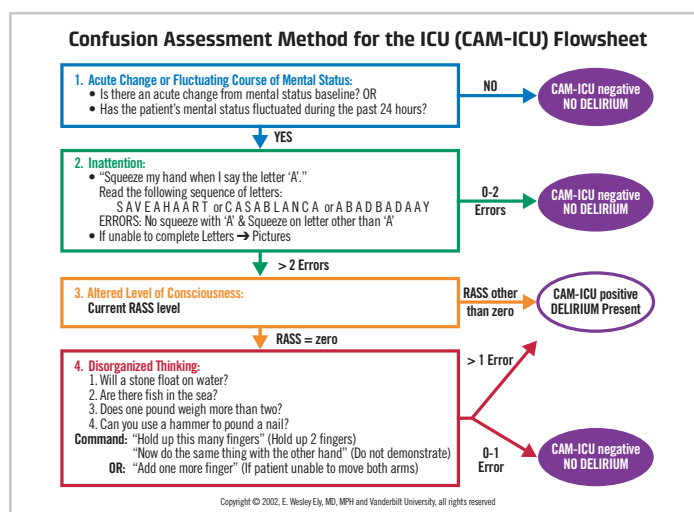
Prevention of delirium is achieved through the following interventions:

1. Proactive pain management. Most experts recommend scheduled doses of acetaminophen along with a low dose opioid as needed.
2. Maintain oxygenation and optimal ventilation. Encourage use of the Incentive Spirometer and apply oxygen as needed via nasal cannula to maintain a pulse ox >92%.
3. Ensure hydration. Elderly patients often take diuretics at home and may have low intravascular volume. Patients with fracture may have been unattended for several hours before they received help. Hip fractures create internal blood loss in the pelvis and thigh. For all these reasons, the patient should receive intravenous fluids until they are able to tolerate fluids by mouth.
4. Avoid use of medications known to contribute to upward effects in the elderly including hypnotics, benzodiazepines and antihistamines. The Beers list identifies several meds that may be inappropriate in the elderly. (<https://www.dcri.org/beers-criteria-medication-list>).
5. Promote good sleep hygiene. This is encouraged by reducing light, noise and interruptions at night.
6. Promote orientation. Maintaining wall clocks with the correct time and calendars or white boards with clear information can help patients to self-orient in an otherwise strange environment. Encourage the use of eye glasses and hearing aids to prevent misinterpretation of stimuli.
7. Remove medical devices that are foreign to the patient such as urinary catheters, IV tubing and sequential compression devices as soon as it is feasible. This reduces risk of infection as well as stimuli that may be confusing to the patient.

When delirium occurs, early intervention is essential. This includes attention to all the interventions listed above as well as a timely medical evaluation and treatment of any underlying problem. Agitation is a hyperactive state that can result from delirium. When a patient exhibits agitation, treatment with haloperidol or quetiapine may be required.

Mobility

Facilitating mobility in the aged patient is another area of focus for the multidisciplinary team. Maintaining mobility is essential for all older adults, especially those with fracture. Hospitalized patients spend an average of 20 hours per day in bed and only 43 minutes standing or walking regardless of their level of independence prior to admission (Steele, 2010). Elderly patients demonstrate rapid deconditioning as early as the second day of their hospital stay (Resnick, 2011). Once a fracture is stabilized, a return to physical activity is critical, and the patient should be assisted out of bed unless contraindicated. For



patients with hip fracture, out of bed activity begins on post op day 1. While the patient's first activity is typically coordinated by physical and occupational therapy, several clinical team members staff can help to achieve this goal. Impediments to mobility include not just pain but "tethers" such as urinary catheters and intravenous lines. Proactively administering analgesics, removing catheters and capping IV lines, when feasible, make out of bed activity easier. The benefits of this activity include improved lung expansion, improved GI motility, an earlier resolution of pain and hope for a return to 'normalcy' (Resnick, 2011).

Function-Focused Care (FFC) is a philosophy of care in which staff assists patients to participate in care activities such as bathing, dressing and turning versus simply performing the task for them. Examples of FFC include assisting a patient out of bed to use a commode instead of providing a bedpan or urinal, and cueing a person with dementia to wash their own face and hands instead of doing it for them. FFC generally does not require more time from staff but does require thoughtfulness and action beyond simply addressing the acute problem that led to the patient's hospitalization (Boltz, 2012).

In 2014, The American Academy of Orthopaedic Surgeons

published clinical practice guidelines for the Management of Hip Fractures in the Elderly. The purpose of these guidelines is to improve treatment of hip fractures based on best evidence. Recommendations address all phases of hip fracture care including the use of advanced imaging, anesthesia, choice of surgical fixation, venous thromboembolism prophylaxis, occupational and physical therapy, multimodal analgesia and prevention of secondary fractures through identification and treatment of osteoporosis (Roberts, 2015). In 2015, Cooper Bone and Joint Institute (CBJI) began incorporating these recommendations and went a step further by obtaining recognition from the International Geriatric Fracture Society for implementing the principles of a Geriatric Fracture Programs. The goal of these organizations as well as CBJI is to improve care and control the financial and societal costs of hip fracture.

In summary, managing the care of patients with hip fracture requires the skill of multiple disciplines working and communicating together. While surgery may utilize the latest technology, it is the combination of bedside care and early mobilization of the patient following surgery that facilitates their return of optimal function. This care has been described as more "high touch" than "high tech". Family members, when educated to do so, may be able to provide helpful information and observations, especially in the effort to prevent delirium. Including them in the circle of care can help the patient to achieve better outcomes. By improving hospital care for elderly patients with hip fracture, we reduce their risk of permanent functional loss and provide them with their best chance to return to their maximum independence.

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Work Place Violence in the Emergency Department

Jennifer Harbourt, MSN, RN, CEN

Healthcare workers experienced one of the highest rates of occupational injuries in 2015, according to the Bureau of Labor and Statistics. During this time, 17% of all private sector injuries and illnesses occurred in the Healthcare and Social Assistance Industry. The Emergency Department (ED) is especially vulnerable to workplace violence (WPV) due to the ease of access and high stress environment perpetrated by pain, lack of privacy and increased wait times (Gacki-Smith, et al., 2009). The Emergency Nurses Association's (ENA) Position Statement recognizes the increased occupational risk for WPV in the ED and Emergency Nurses' right to personal safety in the work environment. The ENA supports education and training, reporting without reprisal and the opportunity to conduct research and quality improvement projects to decrease incidences and/or increase reporting of WPV (ENA, 2014).

Previously published evidence indicates ED nurses are at a greater risk of violence than other nurses (Kowalenko et al., 2012). In addition to being an unpredictable environment that does not

close its doors to patients at any time, the ED is a common landing zone for patient populations who experience addiction, mental health problems and gang violence. Nurses experience high stress levels and frequent emergent situations paired with long delays that are commonplace among EDs causing increased tension and frustrations. All of these factors lead to decreased job satisfaction and increased staff turnover (Gates, Ross, & McQueen, 2005).

In addition to being an unpredictable environment that does not close its doors to patients at any time, the ED is a common landing zone for patient populations who experience addiction, mental health problems and gang violence.

The term violence is determined by each individual study and can include physical, verbal or both types of assaults. Kowalenko, Gates, Gillespie, Succop and Mentzel (2012) identified a limitation of previous studies conducted on violence against healthcare workers noting the vast majority of studies used memory recall/retrospective

collection as the primary method of data collection. They developed a longitudinal study to collect survey data with the goals of describing the incidence of violence and identifying predictors of acute stress response in ED workers who were victims of violence. Their study found a high prevalence of assaults and threats among ED workers, but compared to previously reported data, the

prevalence rate is lower. Even with the lower prevalence, “the average ED health care worker can expect to be physically threatened at least 4 times a year and physically assaulted more than once per year” (Kowalenko et al., 2012).

With the acknowledgment of increased risk for nurses, as well as other healthcare workers in the ED, studies have been conducted to identify predictors of WPV,

staff attitudes towards workplace safety and prevention strategies for this population. Wong, Wing, Weiss and Gang (2015) concluded improved staff attitudes towards behavioral emergencies with the presentation of a simulation-enhanced inter-professional intervention. This is a reenactment of probable

scenarios that could occur in the ED where staff can work through interventions as if it were a real situation. Although the staff had positive feedback regarding the simulations, they were labor intensive and remained simulated, which brings a sense of safety in a protected environment. Gates, et al., (2005) stated of the 242 participants who completed their survey, 64% did not receive any violence prevention training and that feelings of safety were related to job satisfaction. In addition, of the 115 subjects who had experienced at least one assault, 65% did not report the incident to the hospital administrators, thus bringing the authors to conclude the staff accepted the assaults as part of the job (Gates, et al., 2005). The same conclusion was made by Kowalenko et al., (2012) in that “Emergency Physicians feel that violence and a general uncontrolled atmosphere is ‘part of the job’” (p. 525).

Knowing that there is a greater incidence of violence towards health care workers in the ED, what can be implemented to improve the safety in this environment? Each of the four articles reviewed, as well as the ENA position statement, provided suggestions and interventions to increase workplace safety in the ED environment. All suggest training of the staff to include intervention strategies to prevent the escalation of aggressive

behavior into violence. Modification to the physical structure of the ED to include metal detectors, manual searches of ambulance patients and visibility of security are identified by Kowalenko (2012). In addition, surveillance cameras, zero-tolerance policies and prohibited behaviors are all aimed to minimize violent incidents.

Nurses experience high stress levels and frequent emergent situations paired with long delays that are commonplace among EDs causing increased tension and frustrations. All of these factors lead to decreased job satisfaction and increased staff turnover.

Cooper University Health Care (CUHC) has instituted many of these practices to combat WPV in the ED including metal detectors, surveillance cameras and visible security. Camden County Sheriff's Officers are on site at all times and carry Cooper Security radios for constant awareness. In addition, staff is provided yearly violence prevention training with a hands-on component and a focus on de-escalation techniques. A

Behavioral Rapid Response Team (BRRT) has been implemented throughout the hospital and the ED has made modifications to the BRRT response to specifically address ED needs. The ED BRRT provides a systematic approach for staff to respond to a behavioral emergency. In addition to the correct personnel (security, nursing, techs and physicians), restraints and medications are brought to the area if de-escalation techniques are not effective. Furthermore, the patient flow path is currently under review to promote a positive movement through the department.

In spite of all of these strides, most EDs still have opportunity for improvement. Bullet proof glass can prevent outside incidents from spilling into the ED and metal detectors at every entrance can increase the overall feeling of security throughout the hospital. Increased training for all disciplines and staff who are present in the ED can raise awareness in acute situations. Most importantly, staff involvement and leadership support are required to improve the safety and security of any ED. When it is known that the organizational culture has zero tolerance for this unacceptable behavior, job satisfaction and employee retention will rise.

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The Value of a Nurse in Medical Informatics

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Keith Kline, BSN, RN; Melinda Rosseland, MSN, RN

What is Medical Informatics?

The members of the Medical Informatics (MI) team are patient advocates who drive innovation, implement and improve workflows throughout a health system leveraging People, Process, Technology, and Culture. The team can consist of physicians, nurses and health care information professionals with diverse skills and talents. The MI team is the interface to the clinicians and drives the partnerships between information technology and clinicians. This team plays an essential role in the implementation and optimization of the electronic health record (EHR) and supporting applications. Many members of the MI team continue to provide direct patient care, therefore they are able to offer front line clinical perspectives when problem solving. These varied skill sets and backgrounds allow MI to participate and lead projects in all patient care settings.

Informaticists are clinicians who are experts in clinical computing. They play a pivotal role in understanding the strength of utilizing technology to improve patient care and the importance of generating reliable reports for monitoring clinical compliance and outcomes. There are many different informatics applications within the clinical arena, as job functions may vary from organization to organization. Nurses on the MI team have studied the influence of informatics on health care and strive to continually identify the correct people, processes and technology for clinicians. The main roles of the medical informaticist include: meeting with clinicians to develop clinical workflows; leveraging lean six sigma; troubleshooting issues with the EHR; educating staff on upcoming changes; designing technological implementations that aid clinical decision making and standardize care. Examples of these implementations may be seen in the form of order sets and Best Practice Advisories (BPAs).

Along the continuum of care, MI develops data analytics to measure patient response to treatments, yielding information which

will guide clinicians toward providing high-value care. In addition, MI develops evidence-based clinical decision support tools, such as BPAs, for clinical staff to facilitate efficient, quality patient care. Improvement of patient health care outcomes by optimizing clinical workflows and development of user-friendly solutions to complex clinical ordering and documentation needs are other aspects of the MI role. The MI team leverages new technology to improve the patient experience.

Informaticists may function under different titles such as clinical information analyst, clinical informaticist, nursing informaticist, healthcare informaticist or informatics analyst. Informaticists might take on different aspects of the clinical spectrum, based on the needs, size and resources allocated. The trend seems to be that informaticists are becoming more and more involved in all aspects of the EHR. As the experts and owners of the EHR, some organizations utilize their informaticists as the trainers of new technological implementations and onboarding employees.

Project Example

One example of an informatics project at Cooper University Health Care (CUHC) is the implementation of a joint replacement clinical pathway. Baseline data showed opportunities for improvement in cost per case, complications and length of stay (LOS) for patients who underwent joint replacement surgery (hip, knee, or shoulder). The mean LOS observed over expected (O/E) was 1.13 and the O/E cost per case was 1.15. The goal for each O/E is less than 1.0. One major prospect for improvement was the lack of standardized pre-procedure and post-procedure protocols. Weekly workgroup meetings were set up with Informatics, Process Improvement and the physician champions to complete standardized orders from Pre-Op Day 0 to Post Op Day 2 for this patient population (Figure 1).

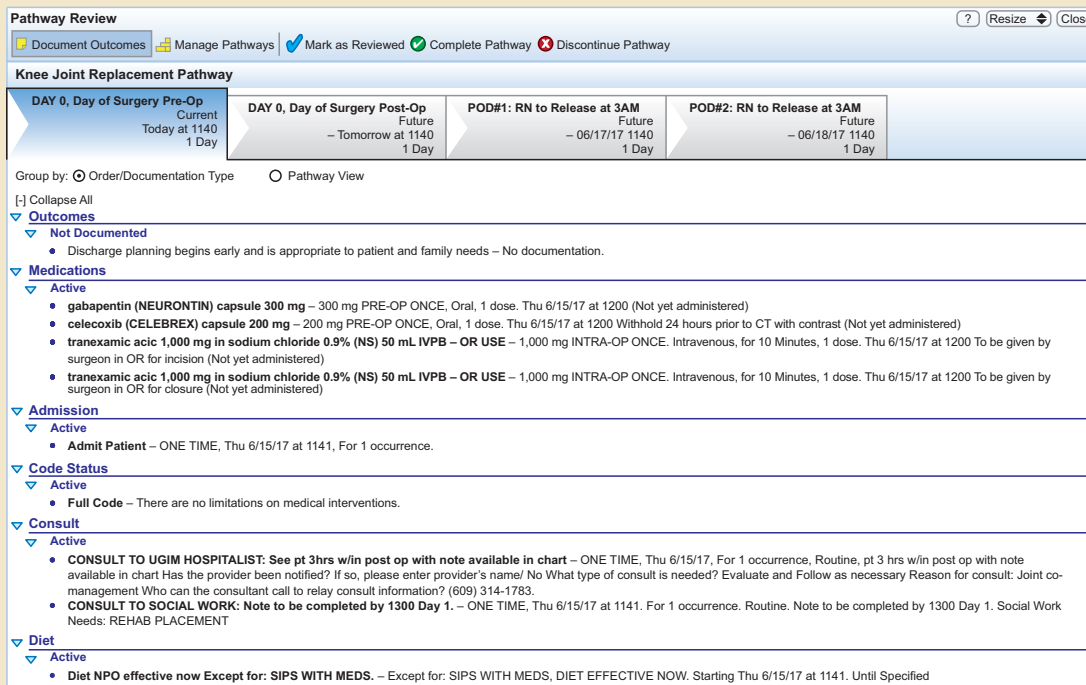


Figure 1. Knee Joint Replacement Pathway in Epic

Informatics also worked closely with the Process Improvement Office, Information Technology and clinical staff to design nursing care plans and flowsheet documentation. Informatics held a usability lab with providers and nursing to review the build and ensure/ validate the workflow. The pathway integrates best practice standards into the care models for these patients. This includes nursing orders, pre-op and post-op medications, labs and social work and physical therapy consult orders. These optimizations helped create effective discharge workflows.

Once the project went live in Epic, Informaticists worked with Process Improvement, Information Technology, and Nursing Education to provide live support. As a result of the project, cost per case decreased from 1.13 to less than 1.0 (Figure 2), complications decreased by 30% and LOS decreased by 0.32 days. As part of the maintenance phase, Informatics met with the joint replacement team to optimize the orders in the pathway. In addition, reports were created to monitor compliance, outcomes and variances. These will assist in identification of further optimizations.

Major Metric: Cost per Case

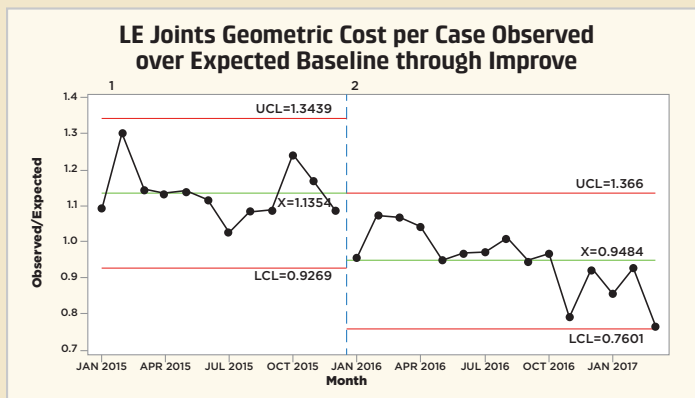


Figure 2. Cost per Case O/E = 0.9484

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Education, Certification and Professional Associations

Informatics is incorporated into Bachelor of Science in Nursing programs, with a broad overview of the field and basic concepts of information technology. There are also graduate programs and certificates that may be obtained in Informatics. The curriculum focuses on creating, managing and analyzing health information to improve patient outcomes through the use of data and technology. Informatics Nursing Certification through The American Nurses Credentialing Center can be obtained.

A professional association membership is a beneficial resource for networking, staying up to date on events and conferences, educational references and job opportunities. There are several professional associations for health informatics students or professionals, including American Medical Informatics Association, American Health Information Management Association, American Nursing Informatics Association and Healthcare Information and Management Systems Society.

Involvement Opportunities with the Department of Medical Informatics at Cooper

New graduate nurses participating in the nurse residency program at CUHC participate in an educational session about informatics, and learn the applications within our clinical setting revolving around high priority projects. CUHC has a Patient Care Services Informatics Council comprised of nurses that review optimization requests for the EHR allowing the nurses to provide input based on their clinical unit based experience. If you are interested in becoming a member of this council, please contact Genalyn Vargas (Chair) via email at Vargas-genalyn@cooperhealth.edu or Stacey Staman (Senior Sponsor) at staman-stacey@cooperhealth.edu.

The Medical Informatics team is available to assist nurses and physicians with their educational requirements for advanced degrees. You can contact Medical Informatics via email at informatics@cooperhealth.edu or phone 856.968.8662.

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Insights into Operational Excellence: How Can We Help You?

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Linda Valenti, MSN, MBA, HCA, RN; Margot Wilson

Background

Many top hospitals throughout the United States utilize Process Improvement methodologies. Johns Hopkins and the Cleveland Clinic both apply the Lean Six Sigma methodology to drive continuous improvement throughout their health systems. Both organizations have identified significant quality, service and financial benefits of applying the Lean Six Sigma methodology.

The Cooper University Health Care (CUHC) Process Improvement Office (PIO) was created in June of 2012. The vision of the PIO began with Dr. Anthony Mazzarelli (SEVP Chief Physician Executive), having the desire to utilize an evidence-based, standardized approach to drive enhanced operational performance and improved patient outcomes. This vision was shared by our then new CEO, Dr. Adrienne Kirby, as she had previously experienced significant successes utilizing Lean Six Sigma methodologies. Dr. Kirby recruited Adrienne Elberfeld as the SVP of Quality and Operational Excellence to oversee this new department. The Process Improvement Office is led by Cory Angelini (Lean Six Sigma Champion), supported by Medical Director, Dr. Kate Ginty and reports up through and has overall oversight by Adrienne Elberfeld.

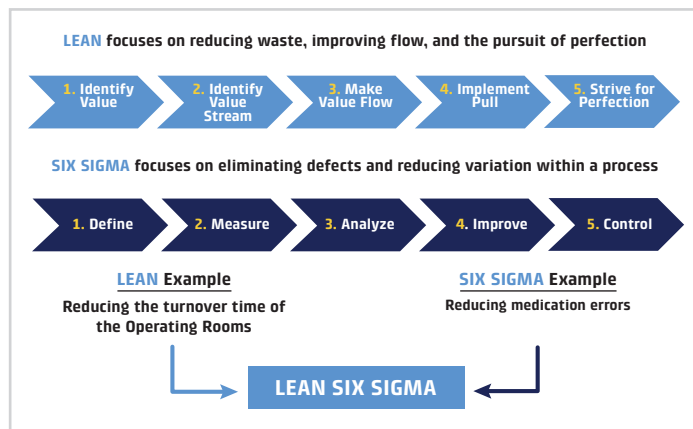
The overall goal of the PIO is to help operations apply process improvement methodologies to improve our entire health system and the delivery of care to our patients.

The Cooper Journey and How the PIO Fits In

As part of Adrienne Kirby's vision, striving for improved operational performance became part of the high level roadmap known as the Cooper Journey (Figure 1).

The overall goal of the PIO is to help operations apply process improvement methodologies to improve our entire health system and the delivery of care to our patients. The PIO team has partnered with clinical and operational teams to complete more than 90 Lean Six Sigma (LSS) and Workout/Rapid Process Improvement (RPI) projects since inception. Each project focused on improving one or more of CUHC's Pillars (Service and Access, Quality and Patient Safety, Growth, Finance, People, and Education and Research)

What is Lean Six Sigma?



Lean

1. Identify what the *patient* sees as parts of their journey that **add value** to them
2. Identify the **value stream** – identify the pathway that adds value to their care and remove the parts of the pathway that add no value
3. Make the value steps **flow** – remove all obstacles that prevent free flow of the patient on their journey
4. Pulling the patient along their journey – **pull** them from the end of their journey through the care process is the most efficient way of delivering care
5. Continually strive towards **perfection** and improve the patient journey through the continual development of the above four principles

Six Sigma

1. **Define:** Identify the problem & understand the customer impact
2. **Measure:** Determine how the process is performing and what are the factors impacting the output
3. **Analyze:** Identify what are the root causes of the defects / variation
4. **Improve:** Implement solutions to remove the main causes of the defects
5. **Control:** Ensure that we maintain the improvements and keep the defects from happening again.



Figure 1. The Cooper Journey

Reducing turnover time of operating rooms (OR) is a typical Lean improvement activity because it is primarily focused on reducing the cycle time it takes to change over the OR for the next case. In order to change over the room efficiently many Lean tools will be utilized to identify a reduction of waste and improve efficiency. Reducing medication errors is a typical Six Sigma improvement activity because it primarily focuses on reducing defects and utilizes Six Sigma tools to identify the root causes and reduce the defects. The most effective and impactful approach to process improvement is to combine both of these great improvement methodologies into what we call Lean Six Sigma so that we can improve efficiencies, reduce waste and continue to improve quality by reducing defects. It is the implementation of LSS that will help us reach the goals of our hospital and continuously improve the care of our patients.

The Process Improvement Office Structure

The Process Improvement Steering Committee, made up of members from the Cooper Senior Executive Team, drives the vision, direction and accountability of the LSS Deployment. This group identifies PIO projects based upon strategic priorities and assigns a Sponsor (overall project owner) and overall goals. The PIO department includes a director, Medical Director, process improvement professionals (referred to as LSS Black Belts), and one Management Engineer. The descriptions of various roles within the PIO and within the organization that support LSS are as follows:

- A Black Belt supports LSS and other improvement projects in the organization. These individuals directly support project owners to utilize the LSS methodology to complete their projects. They also coach and mentor LSS Green Belts.
- Management Engineer focuses on labor productivity optimization. This role uses benchmarking data to help identify opportunities for improvement.
- A Green Belt is a dedicated resource that supports LSS projects.
- A Yellow Belt covers the change management methodology and an introduction to LSS tools and methodologies.
- A Change Agent facilitates rapid process improvement events.

The PIO can help departments with a variety of projects. Once an improvement opportunity is identified, there are multiple types of projects and tools that can be used to achieve the goals.

The most effective and impactful approach to process improvement is to combine both of these great improvement methodologies into what we call Lean Six Sigma so that we can improve efficiencies, reduce waste and continue to improve quality by reducing defects.

Improvement Methodologies

| * | Just Do It Change Management | RPI Work Out FMEA AI | Kaizen | Lean Six Sigma | DFSS Open Model Design |
|-------------|---|---|--|--|--|
| Deliverable | <ul style="list-style-type: none"> • Change Management • Deal with resistance | <ul style="list-style-type: none"> • Team Engagement • Error Prevention • Best Practice identification | <ul style="list-style-type: none"> • Speed • Efficiency • Productivity • Waste reduction | <ul style="list-style-type: none"> • Reduced defects • Reduced variability | <ul style="list-style-type: none"> • Meet customer expectations • Improved process design • OD improvements |
| TAT | <ul style="list-style-type: none"> • < 1 day facilitation • 30 day follow up | <ul style="list-style-type: none"> • 1-2 day facilitation • 30-60 day follow up | <ul style="list-style-type: none"> • 3.5-5 day facilitation • 30 day follow up | • 3-6 months | • 6-9 months |



Lean Six Sigma Projects how do they work?

Below is the typical flow of most Lean Six Sigma projects:

- Improvement opportunity is identified – by Operational owners, the PIO, Quality, the PIO Steering Committee, or any other source
- Selection by the PIO Steering Committee – projects are selected and project Sponsors are identified
- Project sponsors identify process owners (individuals that have direct responsibility for the process that has opportunity for improvement)
- Project sponsor, process owners and the PIO identify the project team
- The project team will meet weekly to complete each phase of the DMAIC project:
 - **Define:** Identify the problem & understand the customer impact
 - **Measure:** Determine how the process is performing and what are the factors impacting the output
 - **Analyze:** Identify what are the root causes of the defects / variation
 - **Improve:** Implement solutions to remove the main causes of the defects
 - **Control:** Ensure that we maintain the improvements and keep the defects or problems from happening again

The Management Engineer supports the Position Management Committee (PMC) by reviewing all non-physician position requisitions to determine if they meet the approval criteria established by the PMC related to budget, Action OI benchmarking and productivity standards. Positions that meet these standards are approved and sent to Human Resources. Positions that do not meet the PMC approval criteria or are new positions are presented in which a final determination on the position will be made.

Each quarter the management engineer with the support of operational owners and the finance department uploads workload volumes and financial data into the national Action OI database. Once the upload is completed and validated, reports are generated to compare Cooper's labor productivity to national benchmarks. This comparison is then used to identify opportunities for improvement. The management engineer then meets with the departments presenting opportunity for improvement to determine next steps to drive improvements.

Productivity at CUHC is a bi-weekly tool for managers to assist in monitoring performance against goals. The report includes the budget and set targets for each department. Managers can view the most current pay period's performance as well as the performance

Although facilitating the completion of projects is a primary objective of the PIO, in alignment with CUHC's mission, education is a strong secondary objective. Since 2012, four classes of LSS Green Belts and Change Agents have been trained. CUHC's Graduate Medical Education includes Process Improvement training where LSS White Belt training is provided to each of the residents. This training is supported with hands-on guidance during a quality and/or patient safety project. This training provides the residents with a well-rounded approach to healthcare and is a requirement of graduation. To further integrate the process improvement tools and methodologies, the Cooper Medical School of Rowan University medical students are taught the LSS methodology at a Yellow Belt level.

In 2016, the PIO facilitated many projects for clinical teams across the organization to improve patient outcomes and to engage safety and efficiency for CUHC employees and physicians. Please see examples listed below.

Cooper
University Health Care

Bariatric Surgery Patients

REDUCING COST, COMPLICATIONS, AND LENGTH OF STAY

Background

- Cooper University Health Care had variation related to Laparoscopic Sleeve Gastrectomy (procedure code 43.82) with an opportunity to achieve higher performance relative to the Premier Standard population.
- These directional variations caused our patients to have increased costs and lengths of stay (LOS) with a directional impact of \$547,209.

Analysis

- Opportunity is supply utilization.
- Lack of standardized pre- and post-procedure protocols.
- One or more clinical barriers impeding movement on the pathway.
- Incomplete documentation resulting in decreasing the Premier "expected" rate.

Team

Team members pictured are:
Dr. Steven Hershfield, MD, FACS
Dr. F. K. Faria, MD, FACS
Dr. F. K. Faria, MD, FACS
Dr. F. K. Faria, MD, FACS
Dr. F. K. Faria, MD, FACS
Dr. F. K. Faria, MD, FACS
Dr. F. K. Faria, MD, FACS
Dr. F. K. Faria, MD, FACS
Dr. F. K. Faria, MD, FACS
Dr. F. K. Faria, MD, FACS

Baseline

Measurement Period: January – June 2015:

- Complications observed over expected (O/E) <1.5.
- GMLoS observed over expected (O/E) 1.30.
- Cost/Case observed over expected (O/E) 1.38.

Goal

The Goal for each O/E is <1.0 (lower is better) by August, 2016.

- Complications observed over expected (O/E) <1.0.
- GMLoS observed over expected (O/E) <1.0.
- Cost/Case observed over expected (O/E) <1.0.

*Reducing LOS will result in fewer complications and decreased cost per case.

**If the team decreases the cost per case O/E to <1.0, the project will demonstrate a cost savings of ~\$347,209.

Improvements

| Issue | Improvement |
|--|--|
| Opportunity in Supply Utilization | Partnership between surgeon, OR leadership, and supply chain to renegotiate contracts and to exchange higher-priced items for items of lower cost with appropriate functionality. |
| Lack of Standardized Pre- and Post-Procedure Protocols | Implemented a clinical pathway for bariatric surgery patients incorporating IRAS (evidence-based initiative proven to reduce adverse events in patients undergoing colectomy surgery). |
| One or More Clinical Barriers Impeding Movement on the Pathway | |
| Incomplete Documentation Resulting in Decreasing the Premier "Expected" Rate | Provider education on appropriate documentation. |

Each of these improvements demonstrated success as seen below.

Results

Financials

This project has reduced supply cost per case and LOS, and saved the organization \$1,147,000 through October 31, 2016.

Quality, Service, Safety

- Complications O/E through October, 2016: 0.96.
- LOS O/E through October, 2016: -0.42.
- Cost per case O/E through October, 2016: 0.91.

Geometric Length of Stay O/E January, 2015 through October 31, 2016

| Month/Year | O/E Ratio |
|------------|-----------|
| Jan-2015 | 1.15 |
| Feb-2015 | 1.45 |
| Mar-2015 | 1.55 |
| Apr-2015 | 1.25 |
| May-2015 | 1.15 |
| Jun-2015 | 1.10 |
| Jul-2015 | 1.15 |
| Aug-2015 | 1.10 |
| Sep-2015 | 1.15 |
| Oct-2015 | 1.10 |
| Nov-2015 | 1.10 |
| Dec-2015 | 1.10 |
| Jan-2016 | 1.10 |
| Feb-2016 | 1.10 |
| Mar-2016 | 1.10 |
| Apr-2016 | 1.10 |
| May-2016 | 1.10 |
| Jun-2016 | 1.10 |
| Jul-2016 | 1.10 |
| Aug-2016 | 1.10 |
| Sep-2016 | 1.10 |

Initial project solutions (awareness, streamlined processes, no ISCU) decreased LOS by 0.13 days (average).

Tweaks to the pilot (moving UGI to OP, expectations for POD1 discharge, Foley out at midnight) resulted in significant decrease in LOS to days with no increase in readmission rate (readmission O/E .46)

January 2017

Cooper
University Health Care

Joint Replacement Surgery

Reducing Cost, Complications, and Length of Stay

Coverage Background

- Cooper University Health Care had variation related to lower extremity joint replacement (procedure code 81.5) with opportunity to achieve higher procedure relative to the previous standard population.
- These directional variations cause our patients to have increased costs and length of stay (LOS) with a directional impact of \$874,448 (over 12 months).

Baseline

- Measurement Period: January through June 2015.
- Complications observed over expected (O/E) 1.89.
- Geometric mean length of stay (GMLoS) observed over expected (O/E) 1.13.
- Cost/case observed over expected (O/E) 1.15.

Goal

The Goal for each O/E is <1.0 (lower is better) by December 2016.

- Complications observed over expected (O/E) <1.0.
- GMLoS observed over expected (O/E) <1.0.*
- Cost/case observed over expected (O/E) <1.0.**

*Reducing LOS will result in lower complications and decreased cost per case.

**If the team demonstrates a cost per case O/E to <1.0, the project will demonstrate a cost savings of ~\$874,448.

Analysis

- Opportunity in supply utilization.
- Lack of standardized pre- and post-procedure protocols.
- Physical therapy optimization.
- Ineffective discharge workflows for patients who have surgery on Thursdays and should be discharged on Saturdays.

Improvements

| Issue | Improvement |
|--|--|
| Opportunity in Supply Utilization | Partnership between surgeon, OR leadership, and Supply Chain to renegotiate contracts and exchange higher priced items for items of lower cost with appropriate functionality. |
| Lack of Standardized Pre- and Post-Procedure Protocols | Developed clinical pathways for joint replacement surgery patients (hips, knees, and shoulders), integrating best practice standards into care models for these patients. |
| Physical Therapy Optimization | Physical therapy staggered shifts to accommodate late OR cases; patients now seen post-op Day 0 when they reach the unit. Agreement between social worker and physical therapy on priority order for patients to be seen. |
| Ineffective Discharge Workflows | Service level agreement with lab; labs for these patients will be ordered and resulted 0600 for Pavilion 7 patients. Agreement with social worker to obtain information prior to insurance nurse deadline on Fridays to ensure Saturday discharges. |

```

    graph TD
      A[Patient admitted to Hospital  
- Transfer from Skilled Nursing Facility (SNF)  
- Transfer from Long Term Care (LTC)  
- Personal Health Device (PHD)] --> B[To OR]
      B --> C[To SNF or Home  
- To SNF: Discharge to SNF as a "Recovery Unit"  
- To Home: Discharge to Home as a "Recovery Unit"]
      C --> D[Discharge to Home  
- Discharge to Home as a "Recovery Unit"]
      D --> E[Home Visit  
- Home Visit as a "Recovery Unit"]
      E --> F[Home Visit  
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      F --> G[Home Visit  
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Lean Six Sigma and the Nursing Process

Linda Valenti, MSN, MBA, HCA, RN

Lean Six Sigma (LSS) in health care is about working with clinical teams to identify optimal processes to ensure patient safety and quality of care in a cost-effective manner. Who better than a registered nurse to work with clinical staff, nurses and providers to facilitate these types of projects?

I was introduced to the LSS methodology in 2012 as a participant of the first Cooper University Hospital (CUH) Green Belt class. After completing two projects, I realized that this was the methodology that would be most effective in helping CUH achieve objectives, specifically those around patient safety and quality of care. At that time, I had been a registered nurse at Cooper for 14 years and had come to realize that my colleagues and I were struggling with problems that either, had been resolved but not sustained or had never really been resolved.

LSS provided a familiar way of approaching problems with a new set of tools. The DMAIC process (define, measure, analyze, improve, control) described above is very similar to the nursing process. Nurses assess, diagnose, plan, implement and evaluate. The LSS DMAIC process defines the problems and objectives, identifies a system for measuring the impact of the problem, analyzes root causes of the problem, identifies and implements solutions, and develops a pilot & control plan to evaluate effectiveness of the solutions. Thus, where the nursing process works with individuals, DMAIC works with processes in providing care to our patients.

I have spent the last three years at CUH working with nurses, physicians and clinical staff to improve processes in many of our clinical areas. One of my first projects was to facilitate the Behavioral Rapid Response Team (BRRT). This was an important project as it originated from our nursing staff during our annual safety survey. Nurses felt ill-equipped to manage aggressive, potentially violent pa-

tients. For this project, we utilized the basic philosophies of LSS:

- No-one knows the processes, problems, and solutions better than the people who work with it every day
- Have the right people on the team
- Have the team members who know the process the best, identify the solutions
- Pilot the solutions in a small, controllable area
- Track data for a full year post go-live to ensure sustainability

The solution identified by the team was to implement a BRRT, to be led by a psychiatrist or psychiatry resident. This was a new strategy for managing these patients to promote safety for the staff while providing the appropriate level of care. BRRT was piloted on both a medical-surgical unit and a psychiatric inpatient unit. The program was revised and then introduced to the other units, two units at a time, over several months. Data on BRRTs demonstrate a decrease in violent incidents per 1,000 patient days to below target with the additional benefit of focusing on verbal de-escalation versus restraint utilization. This project was presented as a podium presentation at the 2017 American Nurses Association National Conference as an innovative way to enhance quality in health care.

I am very much enjoying my role as a Registered Nurse on the Operational Excellence Team. The transitions our clinical teams are driving in demonstrable quality improvements while providing more cost-effective care to our patients is wonderful to see. To date, I've had the pleasure of working on projects with more than 50 front-line nurses in the Emergency Department, P6, P7, P8, K10 and psychiatry and in each scenario, the front line nurses are the people who are driving the successes of these projects.

Email comments to Valenti-linda@cooperhealth.edu





JOURNEY to Comprehensive Stroke

Bethann Mercanti, PA-C

There is a good chance that someone in your life has been affected by stroke. No matter your age, gender, or social status, stroke impacts the lives of millions of Americans each year (American Stroke Association, 2017). Just with any disease, there are “most commons,” and “higher incidences,” but the fact remains that stroke is common. So why is it that when you ask the general public “what does a stroke look like,” very few can provide you with an accurate answer? On the other hand, ask someone what a heart attack looks like, and the majority can get it right. In reality, a stroke and a heart attack are physiologically the same event in a different organ. The same risk factors increase your risk; the same management strategies are put in place to prevent it; we even treat them with some of the same medications and interventions. The emergent treatment of heart attack has been mastered, but stroke is just beginning. That is why achieving Certification by the Joint Commission (TJC) as a Comprehensive Stroke Center means more than just a seal of approval.

Although stroke is the fifth leading cause of death in the United States, and the leading cause of lifelong disability, there is

Over the last decade, we have seen the standardization of emergent stroke treatment, introduction of new interventional modalities, and broadened recognition of stroke amongst health care professionals. This has sparked an era of awareness that stroke can be prevented and treated.

still much work to be done in treating this disease (American Stroke Association, 2017). Over the last decade, we have seen the standardization of emergent stroke treatment, introduction of new interventional modalities, and broadened recognition of stroke amongst health care professionals. This has sparked an era of awareness that stroke can be prevented and treated. Efforts from the American Heart Association (AHA) and American Stroke Association (ASA), have given providers access to tools and guidelines with which to grow programs centered strictly on stroke. Certifying bodies, like TJC, used these guidelines to develop Certification Programs. They currently offer 3 levels of stroke certifications, with a fourth becoming available in January 2018, each signifying organizations’ different abilities when it comes to stroke management (AHA, 2017). This range of different abilities allows a stroke center to care for patients experiencing acute stroke, as well as their comorbid conditions that contributed to their diagnosis. Those centers that do not offer a higher level of care, such as an Acute Stroke Ready Hospital, may refer or transfer to a Primary or Comprehensive Stroke Center. Most states also offer certifications for stroke programs, with the same basic framework in mind. However, before choosing a

(continued on page 16)

Journey to Comprehensive Stroke

(continued from page 15)

program to pursue, the first question is, why pursue any of them? An organization could simply advance its stroke program on its own.

Choosing to obtain certification is proof that a program can achieve the best and do the best for its patients. As stated, TJC developed its guidelines based on the ASA guidelines. These are evidence based guidelines, proven to have positive impact on the patients' immediate and long term outcome (ASA, 2017). Cooper University Hospital (CUH) made the decision in late 2014 to aggressively pursue certification as a Primary Stroke Program through TJC, with Comprehensive Stroke Certification on the immediate horizon. Both levels of certification are built on the foundation of a total of 17 performance measures (see below). Far from arbitrary, adhering to these measures and ensuring that your patient has met them is directly correlated with better outcomes (ASA, 2017). In addition to these performance measures, the program must meet strict goals on select Outcomes Measures. Performance in these measures is evidence that the care provided by the Stroke Team surpasses that of most hospitals in the nation. What is a Stroke Program without its team? Above all else, what we have at CUH that sets us apart from the other Stroke Hospitals in the nation is our Team.

In June of 2015, CUH achieved Primary Stroke Certification through TJC. Just 2 years later, in June 2017, CUH was awarded Comprehensive Stroke Certification, making CUH the first hospital in South Jersey to achieve this level of recognition. We join 123 other hospitals in the nation to hold this certification. For most facilities, movement from Primary to Comprehensive Certification can take five or more years. What we accomplished would not have been possible without a multi-disciplinary team of people dedicated to one purpose: providing exceptional care to patients suffering from Stroke.

Advancement at this pace is only possible when you continually ask along the journey "What can we do to be better for our patients?"

The process of performance improvement is never-ending and the success of any program relies heavily on this fact. Without it, a program is stagnant and will not grow. Maintaining a rigorous performance improvement process has been central to the stroke program's growth and success. Over the course of the last 3 years, we have more than doubled our patient volume, improved patient outcomes, increased awareness amongst patients and providers, and established ourselves a center for Stroke Excellence amongst South Jersey Hospitals. Despite all that has been accomplished in the treatment and management of stroke, we continue to work towards a better tomorrow. Many of our providers are conducting research in their respective fields and subspecialties of stroke, including hemorrhagic strokes, ischemic strokes, pre-hospital stroke care and cerebral aneurysm, just to name a few. New strategies are in development to ensure we meet the needs of our growing patient population. New technology is allowing community hospitals to utilize the expertise of our Neurologists for their patients. The full potential of the Comprehensive Stroke Program has yet to be reached. One thing I look forward to each day is tackling that question: How can we perform better for our stroke patients? I intend to keep challenging myself with that question, and I hope that all of you will as well.

Email comments to Mercanti-bethann@cooperhealth.edu

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Stroke Performance Measures

| Comprehensive Stroke Measures (CSTK) | |
|--------------------------------------|---|
| CSTK-01 | National Institutes of Health Stroke Scale (Ischemic Stroke Patients) |
| CSTK-02 | Modified Rankin Score (mRS) at 90 Days: Favorable Outcome |
| CSTK-03 | Severity Measurement Performed for Subarachnoid Hemorrhage (SAH) and Intracerebral Hemorrhage (ICH) Patients (Overall Rate) |
| CSTK-04 | Procoagulant Reversal Agent Initiation for ICH |
| CSTK-05 | Hemorrhagic Transformation (Overall Rate) |
| CSTK-06 | Nimodipine Treatment Administered |
| CSTK-08 | Thrombolysis in Cerebral Infarction (TICI) Post-Treatment Reperfusion Grade |

| Primary Stroke Measures (PSTK) | |
|--------------------------------|--|
| STK-1 | Venous Thromboembolism (VTE Prophylaxis) |
| STK-2 | Discharged on Antithrombotic Therapy |
| STK-3 | Anticoagulation Therapy for Atrial Fibrillation /Flutter |
| STK-4 | Thrombolytic Therapy |
| STK-5 | Antithrombotic Therapy By End of Hospital Day 2 |
| STK-6 | Discharged on Statin Medication |
| STK-7 | Dysphagia Screening |
| STK-8 | Stroke Education |
| STK-9 | Smoking Cessation/Advice/Counseling |
| STK-10 | Assessed for Rehabilitation |

The Journey to Comprehensive Stroke: The Cooper Nurse's Role

Angela Murphy, RN

The success of the Comprehensive Stroke Program at Cooper would not have been possible without the dedication of our front line nursing staff who were put up to the challenge in 2014 when we began our Stroke Certification journey. We know that our nurses already delivered excellent care to some of the sickest patients in the South Jersey region. In order to achieve Joint Commission Primary Stroke Center Status we needed to prove that our ability to serve, heal and educate our stroke population was stellar.

Three of the ten Stroke Core Measures directly involve nurses. It is evidence based best practice that Dysphagia Screening, VTE Prophylaxis and Stroke Education all improve stroke patient outcomes. Education to our nursing staff included monitoring their performance with completing these measures, providing that feedback through their unit's Clinical Directors and Clinical Educators and then making process improvements where needed based on both performance and feedback from the nurses.

Nurses were provided stroke education at the annual Nursing Skills Fair as well as individual unit education in order to prepare them for the 2015 Primary Stroke Center Joint Commission survey. Although stroke patients normally progress from the ED to the ICU or Pavilion 7 (P7) stroke unit, it is important to educate every nursing unit at Cooper to be able to recognize and care for a patient actively having a stroke. This included education to our ancillary staff on how to respond if they witnessed a patient or a visitor exhibiting signs of stroke. In addition, our specialized care nurses in the ED, ICU and P7 Stroke Units are required to accrue four additional stroke education hours and achieve NIHSS (National Institute of Health Stroke Scale) certification as they provide direct bedside care to stroke patients.

After receiving our Primary Stroke Center certification from The Joint Commission in May of 2015 our goal was to elevate our level of care to a Comprehensive Stroke Care Center. With the addition of Neuro Interventional capability we are now able to perform mechanical thrombectomy and aneurysm clipping/coiling in our Cardiac Cath Lab. These new services required education to Cardiac Cath Lab and Post Anesthesia Recovery Unit nursing staff for the assessment and care of critically brain injured patients before, during and after these procedures.

As the level of care for stroke patients in a Comprehensive Stroke Center increases, so does the need for providing support to our nursing staff. In order to capture more stroke patients, changes were made to the Dysphagia Screening Policy. This change improved our ability to safely assess patient's swallowing capability prior to confirming a stroke diagnosis. Dysphagia education is mandatory for all nursing staff. In 2017, the nursing staff in the primary stroke units increased their annual stroke education from four to eight hours. NIHSS certification is required also. Nursing documentation for pharmacological, mechanical prophylaxis and stroke education have been consistently 100% compliant for 2017.

The Joint Commission surveyed Cooper in April 2017 to measure our Comprehensive Stroke Care Program and in June 2017 we were formally awarded certification as a Comprehensive Stroke Center. The surveyors recognized the excellence of our program and the improvements that were made in a relatively short period of time. They were impressed with our teamwork, especially with our ability to communicate effectively and coordinate care across disciplines. This major accomplishment could not have been achieved without the expertise and dedication of the nursing staff that care for these patients through their own stroke journey.

Email comments to Murphy-angela@cooperhealth.edu



Assessment of National Standards of a GI Endoscopy Unit

Patricia K. Passarelli, RN; Jeanne Greer, Director, BSN, RN, CGRN; Kathryn Reifsnyder, BSN, RN, CGRN; Jean Zoll, MSN, MA, RN, CGRN; Jillian Hagner, BA; Catherine Hassinger, BSN, RN, CGRN

Introduction

The American Society for Gastroenterology Endoscopy (ASGE) sets the national standards of care for the endoscopy industry. It is important to measure the high quality patient care that Cooper Digestive Health of Mt. Laurel (CDHI) provides and compare it to the national standards to keep our practice current. The ASGE has an Endoscopy Unit Recognition Program (EURP) that is an excellent avenue to measure the quality and patient safety at CDHI.

In addition to the recognition of being a quality endoscopy unit, the results could benefit the department by possibly indicating areas where quality and/or performance can be improved.

Methods

200 charts were reviewed, 25 consecutive screening colonoscopies from 8 physicians. ASGE guidelines for competency:

- Patient assessment for procedural risk
- Adequacy of bowel preparation
- Cecal intubation rate
- Adenoma detection rates for men and women
- Adverse event tracking
- Use of patient satisfaction surveys

Results

| Patient Assessment for Procedural Risk | ASGE Average > 95% | CDHI 100% |
|--|--------------------|------------|
| Adequacy of Bowel Preparation | ASGE Average > 90% | CDHI 94% |
| Cecal Intubation Rate | ASGE Average > 95% | CDHI 99% |
| Adenoma Detection Rate for Unit – MALE | ASGE Average > 25 | CDHI 44% |
| Adenoma Detection Rate for Unit – FEMALE | ASGE Average > 15% | CDHI 19% |
| Adverse Tracking | ASGE no Average | CDHI < 1 % |
| Patient Satisfaction Surveys | ASGE no Average | CDHI > 95% |

Adenoma Detection Rate (ADR)

| | # of Charts | # of Females | # of Adenoma Detected | # of Males | # of Adenoma Detected | % of Women with Adenoma Goal >15 | % of Men with Adenoma Goal >25% |
|----------|-------------|--------------|-----------------------|------------|-----------------------|----------------------------------|---------------------------------|
| Doctor 1 | 25 | 10 | 0 | 15 | 6 | 0% | 40% |
| Doctor 2 | 25 | 13 | 7 | 12 | 7 | 54% | 58% |
| Doctor 3 | 25 | 16 | 1 | 9 | 3 | 6% | 33% |
| Doctor 4 | 25 | 11 | 1 | 14 | 7 | 9% | 50% |
| Doctor 5 | 25 | 13 | 1 | 12 | 4 | 8% | 33% |
| Doctor 6 | 25 | 16 | 6 | 9 | 4 | 38% | 44% |
| Doctor 7 | 25 | 10 | 1 | 15 | 4 | 10% | 27% |
| Doctor 8 | 25 | 10 | 2 | 15 | 9 | 20% | 60% |

Discussion

Since receiving the EURP award, the ASGE's national standard for Adenoma Detection Rate (ADR) for males has been increased to greater than or equal to 30% and the female population to be greater than or equal to 20%. Through the collection of data it is evident that there is room to improve on female adenoma detection rates. It was noted that manually collecting data was more labor intensive than having a computer program in place, such as GI Quick or Proventions. One change in practice was to institute tracking of scope withdrawal times during colonoscopy for each physician. This is being measured to ensure adequate time is being spent on examination of the colon (> 6 minutes). It has been determined that at least 6 minutes of withdrawal time during colonoscopy results in improved ADR. The above charts indicate that overall the ADR for women could be improved in 5 out of 8 physicians, but that the ADR for men was greater than ASGE's goal for all physicians at CDHI.

Conclusion

CDHI met all the 2014 ASGE national standards and we received the ASGE EURP award in May 2015. At the time of data collection, the ASGE had awarded this certification to only 400 endoscopic units nationally, and none were in South Jersey. As a unit, Cooper Digestive Health in Mt. Laurel consistently exceeded the 2014 ASGE national averages in all categories.

In March 2016, Cooper Digestive Health in Willingboro also received the EURP award. The EURP certification is an ongoing process. Currently, we are in the early stages of data collection for recertification under ASGE's new guidelines.

Email comments to Hassinger-Catherine@cooperhealth.edu

References

American Society for Gastroenterology Endoscopy. *Endoscopy Unit Recognition Program-EURP*. Retrieved from <http://www.asge.org/clinicalpractice/clinical-practice.aspx?id=13576>

REFLECTIONS

The Daisy

Meghann Thornton, BSN, RN

The Daisy Award is an incredible way for a patient to signify appreciation of the efforts a Registered Nurse provided during their stay. The acronym DAISY stands for Diseases Attacking the Immune System. This award was created by Patrick Barnes' family. Patrick Barnes was a man who died from complications of an autoimmune disease called Idiopathic Thrombocytopenic Purpura. Pat's family spent weeks at his bedside in the hospital with him. After Pat's passing the family wanted to find a way for Pat's memory to live on and give back. The Daisy Foundation became a non-profit organization as a way to say "Thank You" to the nurses that are there day in and day out providing extraordinary care to their patients.

I will always remember the day I received my very own Daisy Award. My manager had asked me to participate in our daily multidisciplinary rounds. As we walked to the center of the hallway, the nurses, physical therapists, leadership, techs and other team members were standing in the hallway. At first, I thought I was late because everyone else seemed to be waiting for something. Then everyone started congratulating me and taking pictures and handing out treats. The speaker then announced I had received the Daisy nomination and was the recipient of the Daisy Award.

There are multiple components of receiving the Daisy Award. The first thing I received was a healer's touch sculpture that is hand carved from a tribe in Zimbabwe. This sculpture signifies the relationship between the nurse and his or her patient. A banner is hung on the recipient's unit until

the next Daisy award winner is selected. This banner shows recognition to the hardworking nurse but also carries a sense of pride for the unit as a whole. The Daisy Award pin is placed on the RN's badge, which also brings a sense of pride.

Another gift is a Cinnabon gift card. While Patrick Barnes was sick in the hospital for weeks he had a very poor appetite. One day Pat's dad brought in a cinnamon bun for himself to eat and Pat had asked for a bite and then continued to eat the entire treat. Pat then asked his father to bring him a cinnamon bun tomorrow morning and enough for all the nurses on the floor to enjoy his favorite treat.

The Daisy Award is something every nurse hears about throughout his or her journey while becoming an RN. One thing I was able to learn while accepting my Daisy Award was how great it is to receive the beautiful letter my very own patient wrote about me, the care I provided and the impact I made on this person's stay. So while the cinnamon buns were sweet, the copy of the letter definitely takes the cake.

During a 12 hour shift, a nurse puts every ounce of effort into caring for his or her patients. Nurses place other's needs above their own the moment they step on the unit. The nurse cares for their patients in a spectrum of different ways whether it is educating a patient on a new medication or holding the patient's hand during a difficult time.

While many efforts go unnoticed, every moment counts. I cannot say enough regarding how honored I am to have been one of the fortunate nurses who happened to have been noticed for their effort. I work alongside brilliant nurses every day and they are the team that has my back. These nurses are there on the good days and the bad days. I believe, just because one of their patients did not complete a Daisy Award pamphlet, it does not mean the nurse failed to provide excellent care. My Daisy Award signifies more than the care I provided to my patient; the Daisy Award signifies the exceptional care my team provided to my patient.

I am beyond honored to have received my Daisy Award and to have been recognized for providing exceptional care. I want to share this award with all the nurses that made my proudest professional moment possible. May many more nurses get to experience a Daisy Award because each and every one deserves to! Thank you to the Daisy Foundation for providing recognition to all of the incredibly hardworking Nurses providing care to our patients.

"My Daisy Award signifies more than the care I provided to my patient; the Daisy Award signifies the exceptional care my team provided to my patient."



Email comments to thornton-meghann@CooperHealth.edu

Professional News

DEGREES:

Genalyn Vargas, MSN, RN, AGNPPC-C, received her MSN from Rutgers University in May 2017 with Adult Gerontology/Primary Care NP

Adam Thaler, BSN, RN, received his BSN from Rowan University

Marianne Minock, MSN, RN, FNP-C, graduated from LaSalle University in September 2017 with a MSN

Meghan Klock, MSN, RN, FNP-BC, graduated from LaSalle University with a MSN

Brenda Bryszewski, BSN, RN, CNOR, graduated from Rowan University with a BSN

Mary Volpe, MSN, RN, CCDS, CRC, graduated from Walden University with a MSN in Nursing Informatics

Autum Shingler-Nace, DNP, RN, NE-BC, received a Doctorate in Executive Health Systems Leadership from the University of Pittsburgh in August 2017

CERTIFICATIONS:

Ryan Mennel, BSN, CCRN, TCRN, obtained Trauma Certified Registered Nurse designation

Robyn Harvey, MBA, BSN, RN, NEA-BC, obtained Certified Nurse Executive-Advanced Designation

Marianne Minock, MSN, RN, FNP-C, was Certified by the AANP as a Family Nurse Practitioner

Meghan Klock, MSN, RN, FNP-BC, was certified by the AANP as a Family Nurse Practitioner

Mary Volpe, MSN, RN, CCDS, CRC, obtained a certification as a Certified Risk Adjustment Coder

Kristie Roohr, BSN, RN, CPN, obtained certification as a Certified Pediatric Nurse

Jessica Simunek, BSN, RN, CPN, obtained certification as a Certified Pediatric Nurse

Edsel Itaas, RN, VA-BC, obtained certification as a Certified as a Certified Vascular Access Nurse

PRESENTATIONS:

Ray Bennett, BSN, RN, SCRNP, CEN, CFRN, CTRN, NRP, presented "No Stroke Left Behind" and "Alphabet Soup of Stroke Assessment in the Acute Stroke Patient" at the Air Medical Transport Conference in Fort Worth, TX October 16-18.

Janice Delgiorno, MSN, ACNP-BC, CCRN, TCRN, provided a presentation on "The Complex Geriatric Patient" at AACN's National Teaching Institute in Houston, TX, May 22.

Janice Delgiorno, MSN, ACNP-BC, CCRN, TCRN, presented "Safe Opiate Prescribing" and "Blood Transfusion in the Critically Ill Patient" at AANP Annual Clinical Conference in Philadelphia, PA, June 20-25.

Pamela Gorman, RN, ACRN; Lucy Suokhrie, RN, MHA; Snehal Gandhi, MD; and John Baxter, MD, presented a poster on "Strategies for Practice Implementation of HIV/HCV Screening across a Health System" at the Association of Nurses in AIDS Care (ANAC) conference in Dallas, TX, November 2-4.

Anthony Angelow, PhD®, MSN, APN, ACNP-BC, ACNPC, CEN, presented "Acute care surgical case studies: Caring for patients with common surgical issues" at the American Association of Nurse Practitioners Specialty and Leadership Conference in Reno, NV, September.

Anthony Angelow, PhD®, MSN, APN, ACNP-BC, ACNPC, CEN, presented "Acute Care: Basic clinical chest radiography interpretation" at the National Conference for Nurse Practitioners in Las Vegas, NV, October.

Anthony Angelow, PhD®, MSN, APN, ACNP-BC, ACNPC, CEN, presented "Emergency nurse practitioner certification review and advanced practice update" course in Chicago, IL and Atlanta GA.

Linda Valenti, MSN, MBA, RN, and Eileen Craig, MSN, RN, presented "Behavioral Rapid Response: A planned response for patients with aggressive behavior where early attempts to de-escalate are ineffective" at the 2017 ANA Annual Conference in Tampa, FL, October.

Dawn Stepnowski, DPN, APN-C, presented "Improving Quality while Decreasing Length of Stay and Cost per case for Bariatric Surgery Patients" at the HVPAA National Research and Education Conference in Baltimore, MD, October.

Keith Kline, BSN, BFA, RN, and Terri Maerten, RN, presented "The magic of CAUTI reduction through provider and nurse collaboration" at the EPIC User's Group Meeting 2017: World of Wizards conference in Verona, WI, September.

APPOINTMENTS:

Deborah Schoch, PhD, RNC IBCLC, CCE, CPST, was appointed to the National Board of Certified Lactation Consultant Examiners.

Stacey Staman, MSN, RN, CCRN-K, TCRN, was appointed to the Trauma Certified Registered Nurse Exam Construction Review Committee for the Board of Certification for Emergency Nursing.

Catherine Meliniotis, BA, BSN, RN-BC, was appointed National Chairman of the Council for Mental Health Advocacy Advisory Panel with the American Psychiatric Nurses Association.