

**Identification of the problem:** Prior to this project, the hand-off process involved the PACU nurse calling report to a nurse on the medical-surgical unit who would then provide report to the clinical nurse caring for the patient. Research has suggested that multiple handoffs results in increased patient errors, decreased patient satisfaction, decreased communication, and decreased continuity of care (Bradley & Mott, 2013; Drach-Zuhavy & Haddid, 2013; Groves, Manges, & Cawiezell, 2016; Kerr & McKinlay, 2013; McMurray, Chaboyer, Wallis, & Ferherston, 2010; & Sand-Jecklin & Sherman, 2014). In addition, multiple handoffs are not consistent with recommended best practices (American Society of PeriAnesthesia Nurses [ASPAN], 2016), who recommend that “Handoff report should be completed before or at the time of transfer. There should be an opportunity for the provider assuming care to ask the transferring nurse questions.” (ASPAN FAQ, 2017).

**EBP Question/Purpose:** What is the effectiveness of bedside handoff between the PACU and medical-surgical unit in decreasing the rate of rapid response activations? The purpose of the project was to decrease the number of rapid response activations on the medical-surgical unit.

**Methods/Evidence:** After a review of the literature and best practices it was determined that the PACU nurses should transfer the patients to the medical-surgical unit and give bedside handoff to the nurse scheduled to care for the patient. Pre-data was collected several months prior to the intervention and post-data was collected monthly after initiation of the bedside handoff.

**Significance of Findings/Outcomes:** There was a 50% decrease in the number of rapid response activations within three months after instituting bedside handoff between the PACU and medical-surgical unit. Nurses, patients, and families reported satisfaction with the process. In addition, it improved communication, decreased patient complications, and proved to be less time consuming.

**Implications for perianesthesia nurses and future research:** Bedside handoff between the PACU and medical-surgical unit demonstrated a decrease in rapid response activations and is a practice that should be continued. Bedside handoff allows for a quick assessment of the patient with the PACU nurse and nurse assuming care present, and immediate response to any identified issues. Future research should examine patient and nurse satisfaction, and timeliness of handoff.

**PAIN, NAUSEA AND...THIRST?**

Primary Investigator: Joni Lauri, RN BSN CPAN  
University of Colorado Hospital, Aurora, Colorado



**Introduction:** Literature shows that the thirst sensation is often among the top patient complaints in ICU settings. While the Post Anesthesia Care Unit (PACU) is a comparable space, there is little available information on evaluating and treating thirst there.

**Identification of the problem:** Much PACU research focusses on evaluating and treating pain and nausea in the post-operative

period. However, thirst is often cited by patients themselves as also being an intensely uncomfortable sensation after surgery.

**EBP Question/Purpose:** What is the prevalence and intensity of thirst compared to pain and nausea in the PACU among patients who received general anesthesia for their surgery?

**Methods/Evidence:** This project was performed in the inpatient PACU of a large academic medical center, by the staff nurses responsible for direct patient care. Patients were asked to rate their discomfort levels for pain, nausea and thirst on a zero to ten verbal numerical rating scale prior to any interventions. Of 200 patients, 117 gave ratings on all three categories, which were recorded by the nurses on a survey tool.

**Significance of Findings/Outcomes:** The mean rating for thirst was 4.34, compared with 3.3 for pain and 0.54 for nausea. The median was 5, compared with 2 for pain and 0 for nausea (the ratings for which were heavily weighted towards being either zero or greater than eight). Of particular note, 50 patients indicated thirst as their highest rated source of discomfort, compared with 37 for pain and 2 for nausea. These results correspond with a limited number of studies that have been performed in ICUs that have likewise found thirst to be a common and a significant source of discomfort, more so than either pain or nausea.

**Implications for perianesthesia nurses and future research:** Thirst is a major source of patient discomfort that should be evaluated and treated early and actively in the post-operative period. More studies should be performed in order to better quantify the problem and determine effective interventions.

**IMPLEMENTING SEPSIS-3 AND THE QSOFA IN AMBULATORY SERVICES**



Primary Investigator: Debra Malone, BSN RN CAPA  
University of Colorado Hospital, Denver, Colorado

**Introduction:** Sepsis-3 and the Quick Sequential Organ Failure Assessment (qSOFA) was released in 2016. A large university healthcare system implemented Sepsis-3 education and a qSOFA best practice alert (BPA) trial in Ambulatory Services (AS).

**Identification of the problem:** Sepsis is a worldwide leading cause of death and the costliest condition to treat. Early recognition of Sepsis remains the cornerstone for survival. Limited understanding of Sepsis 3 and the qSOFA was identified in AS.

**QI question/Purpose of the study:** Can we decrease Sepsis mortality by early identification of patients in AS through education and implementation of a qSOFA BPA?

**Methods:** Participant completed a 4 question pre learning survey. They documented their role in healthcare. They participated in a Sepsis-3 PowerPoint presentation. A post learning survey was completed. There were no participant restrictions. Pre/post learning results were compared, and yearly Sepsis mortality was compared. Retrospective data was obtain for possible positive qSOFA results. An active qSOFA BPA is being trialed in AS Urology Clinic.

**Outcomes/Results:** The project demonstrated that after education, all levels of AS healthcare professionals had a greater understanding of Sepsis-3 and the qSOFA. Yearly sepsis mortality decreased slightly. Retrospective data showed a possible qSOFA

*Note: All abstracts are printed as received from the authors.*

BPA fire rate of 4.8%. 24 out of 55,852 AS patients showed results for a positive qSOFA based on respiratory rate and blood pressure data.

**Discussion:** This project fills a gap in the literature reviews of outcomes from Sepsis-3 and qSOFA BPA implementation in AS. Disseminating the results are important to decrease Sepsis mortality.

**Conclusion:** Education, and implementation of a qSOFA BPA in AS, may decrease Sepsis mortality by earlier recognition and faster escalation of patient care to the appropriate setting.

**Implications for perianesthesia nurses and future research:** The perianesthesia nurse can easily implement the qSOFA in their nursing practice to help identify patients that may have increased risk for a poor outcome throughout their perianesthesia experience.

### EFFECT OF PREWARMING ON INADVERTENT HYPOTHERMIA AND THERMAL COMFORT



Primary Investigators: Kathryn Mercado, BSN RN, Denise Rainier, RN MBA BSN  
MemorialCare Long Beach Medical Center, Long Beach, California

Co-Investigators: Adrianna Medina, RN CNOR, Marci Trump, MSN RN CNOR, Janeen Lozada, BSN RN CPAN, Peggy Kalowes, PhD RN CNS FAHA

**Introduction:** Inadvertent perioperative hypothermia (IPH), where core body temperature is less than 36°C or 96.8°F, occurs in 26-90% of patients undergoing elective surgery. This preventable anesthesia- and surgery-related complication affects patients' outcome and is associated with increased risk for surgical site infections (SSIs), bleeding, blood transfusions, and decreased patient thermal comfort.

**Identification of the problem:** Even mild IPH can cause significant patient complications, increasing health care costs postoperatively (PO).

**EBP Question/Purpose:** In colorectal/ orthopedic surgical patients, does preoperative warming with a forced-air warming (FAW) gown, effect occurrences of IPH, reducing PO SSIs and blood transfusions, while improving patient thermal comfort and anxiety?

**Methods/Evidence:** Deming's PDSA Cycle (Plan-Do-Study-Act) model was used to guide our project. A FAW gown was initiated pre-operatively for 30-minutes and continued intra- and post-operatively. Baseline and post-intervention data were obtained regarding SSI and blood transfusion rates, as well as nurses' knowledge of peri-operative patient warming and the impact on patient outcomes. Patients' perception of 'Thermal Comfort' and Anxiety during their perioperative experience was measured using the Thermal Comfort Inventory (TCI) Scale, which used a Likert scale to measure the patients' thermal comfort and anxiety, and a Numeric Visual Analog Scale (NVAS) was used to rate overall thermal comfort. Staff were educated related to the project and protocol, as well as through

staff huddles and peer-to-peer interactions in each perioperative area. A brochure about the warming gowns was developed to give patients and family members.

**Significance of Findings/Outcomes:** Our study results aligned with previous research outlining the benefits of preoperative warming. Comparing pre- to 30-day post-warming data, there was a decrease by 26% of SSIs, as well as a 49% reduction in blood transfusions among high-risk surgical patients (spinal, colorectal, and total joint patients). TCI questions related to temperature showed a slight increase in thermal comfort and decrease in anxiety. The NVAS Pre/ Post FAW showed an 8% increase in overall thermal warmth, and a correlation between patient satisfaction and level of warmth.

**Implications for perianesthesia nurses and future research:** Hospitals can provide safer care for surgical patients by adhering to AORN and ASPAN's EBGs regarding perioperative warming to prevent IPH and its negative outcomes.

### INTERACTIVE TEXT NOTIFICATION OF ARRIVAL TIMES FOR PEDIATRIC SURGERY PATIENTS



Primary Investigators: Susan N. Kamerling, MSN RN BC, Linda C. Lawler, MA RN  
Children's Hospital of Philadelphia, Philadelphia, Pennsylvania

**Introduction:** Parents of pediatric patients admitted from home for surgery historically were directed to call for their arrival time between 3:30-6:00 p.m. the last business day prior to surgery. Calls are automatically directed to 3 minute recorded review of need to know information prior to speaking with an agent to receive their arrival time and respond to any questions.

**Identification of the problem:** Press-Ganey comments and verbal feedback from families revealed dissatisfaction and frustration with the call system due to prolonged wait times in calling queue and/or being disconnected after listening to the recorded message if the calling queue was full.

**QI question/Purpose of the study:** Improve the efficiency of the arrival time call, improve patient satisfaction and provide accurate and consistent pre-procedure information through the implementation of an interactive text notification system.

**Methods:** The Perioperative Family-Centered Care/Patient Satisfaction Team, a multidisciplinary team consisting of representatives from Nursing, Family Experience, Family Partners, Child Life, Administration, Anesthesia, and Surgery, identified the arrival time call as an area for improvement through Press-Ganey Survey review. The team partnered with Information Systems and Patient.ly© to implement an interactive texting notification system to take the place of the arrival time call for families who opt into texting. A Carebot blueprint and data base was developed to automatically provide surgery arrival times, review pre-procedure information and respond to frequently asked questions. Texts are delegated to Team Members as needed.

**Outcomes/Results:** A majority of our families have opted into text notification and are confirming receipt of their arrival time via text. This has resulted in significantly fewer calls, lower wait times and decreased administrative support time needed on calls daily. Feedback from families has been overwhelmingly