

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



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**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



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**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

positive, and negative comments regarding arrival time calls on Press-Ganey reports have all but been eliminated.

**Discussion:** Text messaging is widely used and is a simple and effective way to communicate surgery arrival times,

**Conclusion:** Interactive text notification is a superior modality to communicate surgical arrival times, reinforce pre-procedure instructions and answer questions.

**Implications for perianesthesia nurses and future research:** Use of technology to provide arrival times via interactive text notification promotes patient/family-centered care and patient satisfaction while providing consistent and easy access to information, in a convenient and user friendly way.

### CUT TO THE CHASE: PRE-OP SURGICAL CLIPPING



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**Introduction:** Cardiothoracic and Thoracic preoperative patients in the Heart and Vascular Institute were having their hair removed prior to OR in the preoperative setting. The vascular preoperative patients were having their hair clipped in the OR.

**Identification of the problem:** The problem that was identified was the increase financial cost of OR time spent clipping vascular patients while in the OR setting.

**QI question/Purpose of the Study:** The objective of this project was to decrease the cost and improve efficiency of OR time by clipping vascular patients in the preoperative setting instead of utilizing OR time to clip patients.

**Method:** We decided to measure the cost savings monthly since all the outpatient vascular surgery patients requiring clipping are now being clipped in the preoperative setting in the Heart and Vascular Institute. We collected data from December 2017 to March 2018. One hour of surgical OR time equals \$1700.00 in the Heart and Vascular OR's. We calculated the total number of minutes shaved per month and converted it to hours to calculate the dollars saved monthly.

**Outcomes/Results:** Prior to implementing the vascular preoperative shaves there was \$0 cost savings. January 2018 the cost savings was \$11,050.00. February 2018 the cost savings was \$5797.00. March 2018 the cost savings was \$10,341.00.

**Discussion:** This was the first study to objectively measure cost savings of clipping vascular patients in the preoperative setting versus the vascular OR settings.

**Conclusion:** From January 2018 through March 2018 we have a cost savings of \$27,188.00. All vascular surgery patients in the Heart and Vascular Institute are now being clipped in the preoperative setting.

**Implication for perianesthesia nurses and future research:** This project could be implemented in other preoperative areas. Future research would be recommended to investigate additional cost savings for other surgical settings.

### OPTIMIZING SURGERY PATIENTS IN A PERIOPERATIVE CARE CLINIC



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**Introduction:** Traditionally, IAH surgeons refer patients to their primary care provider (PCP) who conduct a history and physical and orders any tests deemed necessary by the team, to prepare patients for the safe administration of anesthesia and surgery.

**Identification of the problem:** Inadequate preoperative patient preparation can lead to day of surgery (DOS) cancellation.

**EBP Question:** Are there less surgery cancellations on the DOS if a patient scheduled for surgery is evaluated in a preoperative clinic compared to their PCP providing the preoperative preparation?

**Purposes:**

1. To determine if patients prepared for surgery in a preoperative clinic result in fewer DOS cancellations than those evaluated by private physicians/providers.
2. To demonstrate how to optimally prepare patients for surgery and avoid cancellations.
3. To improve patient care quality, patient experience, and prevent loss of revenue by optimally preparing patients for surgery.

**Method/Evidence:** Literature review indicated the optimal method for preoperative patient evaluation was utilization of clinical pathways developed for specific comorbidities. Through nurse observation, the comorbidities at IAH that most often cause surgery cancellations are diabetes, cardiovascular disease, hypertension, and alteration in skin integrity. Pathways were developed and used to evaluate patients presenting to the clinic with these comorbidities. The pathways were also used to determine if surgery cancellations that occurred in June/July 2018 could have been prevented.

**Significance of Findings/Outcomes:** In June/July 2018, 1299 surgeries were performed at IAH resulting in 23 cancellations, 4 of which may have been prevented had the patients been evaluated in the preoperative clinic. Sixty-nine of these surgery patients were evaluated in the preoperative clinic, none of which were cancelled. Two additional cancellations were averted due to the detection of the patients' poor state of health when they were examined in the clinic.

Preoperative clinic patient preparation results in less surgery cancellations. A decrease in DOS cancellations improves the patient experience and reduces lost revenue. At \$8.53 per minute the 2 averted cancellations saved IAH well over \$2,000 in Operating Room time alone.

**Implications for perianesthesia nurses and future research:** Recommend surgeons utilize preoperative clinic for surgical patient preparation. Collaborate with clinic practitioners in the creation of additional pathways that target current and specific needs for best patient outcomes.