

driven guidelines, integrating a validated OSA screening tool during pre-operative phone interviews, promoting patient education and supporting safer nursing practices.

**Methodology:** This was an IRB approved, nurse-driven study. A reliable STOP-Bang Questionnaire was implemented to recognize patients at risk for OSA prior to surgery. A standardized protocol was established, including OSA discharge teaching, interventions, and adoption into the electronic medical records.

**Results:** Prior to this study, a patient sleep assessment was not consistently evaluated. The STOP-Bang Questionnaire was complete in 1,118 ambulatory surgical patients. The outcomes concluded 116 (10%) of ambulatory patients scheduled for elective surgery had risks for undiagnosed OSA screening, leading to 179 (16%) cancellations of scheduled surgeries. Following nurse-drive OSA protocol, no adverse hospital admissions since resulted.

**Discussion:** Pre-operative screening for OSA has fostered improved patient outcomes by avoiding recovery delays and discharge times. Through the support of OSA guidelines perianesthesia nurses have enhanced interprofessional communications, developed patient education, reduced hospital admissions and advanced patient safety in an ambulatory setting.

**Conclusion:** Minimizing adverse health-related problems following ambulatory surgery remains a priority for perianesthesia nurses. Screening patients sleep habits and their OSA risks using a STOP-Bang Questionnaire prior to surgeries or procedural sedation improved patient safety and upholds best perianesthesia nursing practices.

**Implications for perianesthesia nurses and future research:** Future research recommendations include, intensifying data retrieval to include a facility-wide OSA screening assessment, expand sample size and length of study.

**THREE ES TO IMPROVING OUTCOMES:  
EDUCATION, ENGAGEMENT AND  
ENHANCED RECOVERY**



Primary Investigators: Alida Wagner, MSN RN APN/  
CNS CPHQ, Naomi Kroncke, RN, Melissa Johnson, RN MSN  
CPAN

Northwestern Medicine Delnor Hospital, Geneva, Illinois  
Co-Investigators: Kate Johnson, RN BSN, Stephanie Reed, RN  
BSN, Stephanie Mikkelson, RN BSN, LeeAnn Jackson, RN

**Introduction:** Delnor Hospital participated in a collaborative along with other Northwestern Medicine hospitals expanding the elective colon bundle which included Enhanced Recovery elements to improve patient outcomes. Providing patients/families with a robust education plan preoperatively to engage patients in their care and improve their outcomes became a focal point for the Enhanced Recovery Program (ERP) at Delnor.

**Identification of the problem:** During the initial pilot the hospital could not justify creating a nurse navigator for this pro-

gram. Additionally, the surgeons at Delnor lacked the resources to provide the extensive education during the office visits.

**QI question/Purpose of the Study:** What impact does preoperative education have on engaging patients/families in the Enhanced Recovery Program to improve outcomes?

**Methods:** The Enhanced Recovery Nurse Coordinator (ERNC) was established within the Preadmission Testing (PAT) department to guide patients through the education and pre-surgical preparation. An education binder was created for the patients to learn about ERP, prepare them for surgery, and get them back to better health sooner. The education developed in the binder reflected evidence-based best practices for early ambulation, nutritional optimization, and pain management. Education began in the surgeon's office, and continued through multiple calls and a visit with the ERNC.

**Outcomes/Results:** The program was piloted with 4 surgeons until 20 patients completed the protocol. There are 47 specific data elements monitored by the team. Highlighted data from the pilot: 100% of the patients received the binder and education with the ERNCs which translated into a 53% reduction in Length of Stay and 30-day Readmission rates, along with 100% reduction of Venous Thromboembolism.

**Discussion:** The patients involved with the pilot study were engaged in the protocol and provided positive feedback to the preoperative education. It is believed that the patient/family buy-in supported improved outcomes and the program's success.

**Conclusion:** Success of this program has led to expansion of ERP to other surgical specialties and the comprehensive education delivery method will continue to expand to other service lines.

**Implications for perianesthesia nurses and future research:** Consideration of a retrospective study from the pilot population to identify if the education binders and ERNC role supported the improved outcomes. As ERP expands at Delnor, the team will continue to review the delivery method for the education.

**MUSIC LISTENING IN THE PACU IN  
PATIENTS UNDERGOING  
ADENOTONSILLECTOMY SURGERY**



Primary Investigator: Deborah Scalford, MSN RN  
Children's Hospital of Philadelphia, Philadelphia, Pennsylvania  
Co-Investigators: Karen Slater, BSN RN, Margaret Dunn, BSN RN  
CPN, Anne Marguerite Weisman, RN

**Introduction:** In the pediatric population, music has been utilized in the hospital setting to relieve anxiety and distract from painful procedures. There is limited information related to the influence of music and pain management in pediatrics. Music listening as an intervention in children who have had Adenotonsillectomy surgery is a tool to address adjuncts to medication for pain relief.

**Identification of the problem:** Adenotonsillectomy surgery is a painful procedure. In the pediatric population it may be difficult to manage the pain associated with this procedure. Common practice to relieve pain associated with Adenotonsillectomy consists of pain medications, including narcotics.

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

The literature supports the use of music in the health care environment as a way to individualize care and decrease pain and anxiety. It is an inexpensive alternative to provide a complimentary and holistic approach to patient care.

**EBP Question/Purpose:** Does the use of music have a positive effect on pain and anxiety in the PACU after Adenotonsillectomy for children 5 to 10 years old? We will examine patient, family and nurse satisfaction.

**Methods/Evidence:** Before the child went into surgery, a pre-operative nurse asked the child and/or the parents his/her favorite type of music. Patients/families had a choice of music from a number of music listening stations. The nurse obtained an iPod (Apple Inc, Cupertino, CA) and speakers and or headphones. Once patients arrived in the PACU and after initial assessment, the music was started. Surveys were used to collect information on anxiety, patient/family and nurse satisfaction at the conclusion of the PACU stay.

**Significance of Findings/Outcomes:** 64% of patients/families agreed that music calmed their child in the PACU. 72% of staff agreed that using music is a good way to decrease pain and anxiety for patients. 80% of both patient/families and staff would recommend music listening to others in the PACU. Our findings indicate that music listening is a useful non-pharmacological intervention for pain and anxiety in this population.

**Implications for perianesthesia nurses and future research:** This information supports the use of alternative options, specifically music listening, for pediatric pain and anxiety management in the perianesthesia setting. Our follow-up study will examine expanding the use music listening to other patient populations.

### **SURGICAL NORMOTHERMIA; ACHIEVING THE TRIPLE AIM**

Primary Investigator: Dawnmarie Devito, MSN-ED  
RN CPAN

Robert Wood Johnson University Hospital, New Brunswick,  
New Jersey

Co-Investigators: Michele Dickson, BSN RN CAPA, Susan  
Elliott, BSN RN, Karin Graulich, MSN RN, Danuta  
Niewinska, BSN RN, Jennifer Pirozzi, BSN RN CNOR



**Introduction:** Unplanned hypothermia is a common complication of surgery and can lead to serious complications. An effective way to maintain normothermia is through pre-warming.

**Identification of the problem:** Our organization experienced a lack of pre-warming for hypothermia prevention. There is a vast but diverse amount of evidenced based intervention for unplanned hypothermia prevention. This immense and somewhat conflicting information can pose a challenge for organizations when deciding what is the most optimal as well as practical method to prevent unplanned hypothermia. After comprehensive review of literature and professional practice guidelines it was found that hypothermia prevention can be achieved by both passive and active pre-warming methods. In

addition to seeking quality clinical care logistics and cost effectiveness are also a consideration.

**Purpose:** The aim of this project was to evaluate diverse approaches to hypothermia prevention to determine which was most aligned with achieving high quality, cost containment, and improved population health.

**Methods:** A pilot project was conducted to test the feasibility and usefulness of both pre-warming methods. The project was conducted in all perioperative departments. Passive pre-warming was provided using a warmed cotton blanket with a sheet on top, head covering, socks, and patient education. Active pre-warming was obtained with use of forced warm air Bair Paws Gown device and patient education. Sample population included all patients having colorectal or hysterectomy procedures. The sample population was evenly divided so that half received passive pre-warming and the other half received active pre-warming. A data collection tool was developed. All perioperative staff was educated and in-serviced on each method including equipment.

**Outcomes:** After collecting data for a one month period our final sample size was N=30. 12 received passive pre-warming and 18 received active pre-warming. Data analysis showed that there was not a significant change in the mean body temperature from data point SDS admission and OR arrival. When compared to baseline data using either passive or active methods, both yielded good normothermia maintenance with necessitates intervention.

**Conclusion:** After analyzing the data it was decided that there was not enough clinical benefit related to superiority in pre-warming for hypothermia prevention, when comparing passive and active methods. The cost of the active warming Bair Paws Gown device is significantly higher than the passive warming supplies, and logistically the passive pre warming can be easily implemented as these resources currently exist.

**Implications for the perianesthesia nurses and future research:** Ongoing research is needed for new methods to maintain Normothermia in the surgical patient.

### **EFFECTS OF TRANSPORT ON ORAL TEMPERATURE OF POST-SURGICAL PATIENTS TRANSPORTED FROM PACU TO NURSING UNITS**

Primary Investigators: Kathy Dureault, MSN RN CPAN  
St. Joseph Hospital, Orange, California  
Co-Investigator: Susan Violette, ASN RN CPAN



**Introduction:** Maintaining normothermia beyond the walls of the PACU is critical for patient stabilization and meeting a pre-determined clinical pathway. At one Southern California Community Hospital there were complaints/reports of patients being hypothermic on arrival to the inpatient unit. This was despite the fact that those patients met the criteria of normothermia prior to discharge from PACU.

**Identification of the problem:** There is a gap in the literature on the effect of intra-hospital transport on patient temperature.

**Purpose of the Study:** The purpose of this descriptive study was to determine changes in oral temperature resulting from transport between the PACU to inpatient nursing units. One research question guided this study: Does oral temperature change as a result of transport from PACU to inpatient nursing units?