

### SUCCESSFUL INTRODUCTION OF MUSIC THERAPY FOR POST-OPERATIVE PAIN, ANXIETY AND NAUSEA IN THE ADULT ONCOLOGY PATIENT



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**Introduction:** Research shows music can move people and motivate us to overcome obstacles. Music therapy can lower stress, promote comfort and reduce pain for all ages, genders and race. Our proposal, Music therapy for the Post-Operative Pain, Anxiety and Nausea has the potential to positively impact Symptom Management, Wellness and Quality Improvement.

**Identification of the problem:** Post operatively there has been an increase in pain, anxiety and stress within the post-op period. This is reflected in the increased volume of narcotics, antiemetic, and benzodiazepines inventoried from pharmacy.

**Purpose:** Implementation of music therapies has been introduced in a six month trial. During this period we have had a positive patient outcome with a 20% decrease in medication administration. Also noted was a positive staff satisfaction.

**Method:** Overhead satellite radio has been installed with the ability to play a soothing musical variety. Data has been collected and compared over a six month period.

**Significance of Findings/Outcomes:** The initiation of instrumental study music has been introduced with positive verbal feedback from both patients and staff. In Fall 2018 we hope to complete Phase II Music initiative in ambulatory center/endoscopy recovery areas (Phase II recovery). We have found that musical therapies distract patients from pain, anxiety and fear. Literature states promoting well-being and calmness by musical distraction has increased post-operative satisfaction. A satisfied patient + happier nurses = improved hospital satisfaction. Unrelieved post-operative pain, nausea and anxiety may have a negative impact on our patients on a physiological and psychological well-being of patients. Such a small initiative has had such a huge impact on out patient population.

**Implications for perianesthesia nurses and future research:** Literature has shown over eighty percent of patients experience pain and nausea post operatively. Studies have found that patients exposed to music therapy have reported fifty percent less pain, anxiety and nausea. We hope to increase these outcomes.

### INHALED PEPPERMINT AROMATHERAPY FOR TREATMENT OF POSTOPERATIVE NAUSEA AND VOMITING: A COMPLIMENT TO TRADITIONAL PHARMACOLOGICAL TREATMENTS



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**Introduction:** Postoperative nausea and vomiting (PONV) rates after surgery with general anesthesia have been estimated at 20% - 57%. There is strong evidence that demonstrates that female patients undergoing general anesthesia have a higher risk of PONV than males. Holistic approaches to treat nausea have been well studied, and provide a potential supplement or alternative to traditional pharmacological treatments, although strong evidence is lacking.

**Identification of the problem:** PONV after general anesthesia is an overwhelmingly common side effect and can greatly impact patients' recovery.

**Purpose of the Study:** This pilot study aimed to assess the impact of the inhalation of *Mentha piperita* (Peppermint oil) on early postoperative nausea in female patients.

**Aims:** This study investigated the use and effect of inhaled peppermint essential oil for 35 women undergoing laparoscopic abdominal surgery.

**Method:** Assessment of nausea was performed using the 4-point Visual Analogue Scale before and after discharge from the Post Anesthesia Care Unit (PACU). When reporting nausea, participants were given the option of using peppermint aromatherapy in addition to standard medications. For patients who utilized aromatherapy in the (PACU), ongoing postoperative aromatherapy use was monitored.

**Results:** Of patients who utilized the aromatherapy sniffer in the PACU, 88% continued to use it postoperatively once departing the PACU, demonstrating strong statistical significance ( $\chi^2 = 11.774, p = .001$ ). Additionally, all participants who reported nausea in the PACU, and used the aromatherapy sniffer, reported a decrease in their nausea level.

**Discussion:** This project successfully showed a significant association between the use of aromatherapy in the PACU and postoperatively. Although nausea reduction was also appreciated in this study, the small sample size and lack of a control group limits interpretation.

**Conclusions:** The dramatic association of aromatherapy use in the PACU and use outside the PACU supports the hypothesis that patients may have perceived benefits from aromatherapy use. Providing aromatherapy, in addition to conventional pharmacological treatments, can empower nurses in managing PONV.

**Implication for Future Research:** Further research with larger sample sizes, control group analysis, and different essential oils and/or combination of essential oils would be valuable.

### DECREASING THE INCIDENCE OF POST-OPERATIVE URINARY RETENTION (POUR) AND INCONTINENCE WITH THE TOTAL JOINT REPLACEMENT PATIENTS AFTER SPINAL ANESTHESIA IN THE POST ANESTHESIA CARE UNIT (PACU): A QUALITY IMPROVEMENT PROJECT



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**Introduction:** Patients with POUR can develop bladder atrophy, urinary incontinence and hypertension.

**Identification of the problem:** After spinal anesthesia, orthopedic patients frequently presented to PACU with full bladders

resulting in 14% (n=10) of total knee replacement patients and 6% (n=5) of total hip replacement patients experiencing urinary incontinence. Bladder scanning was not routinely performed.

**Purpose of the Study:** The purpose of this quality improvement project was to implement standardized guidelines for bladder scanning for patients who have total knee or hip replacement to decrease POUR and incontinent episodes.

**Methods:** Patients were bladder scanned within the first hour of PACU admission. Straight catheterization was performed for more than 400ml of retained urine. The protocol included both total knee and total hip placement surgeries with spinal anesthesia. Compliance with scanning, percentages with POUR and incontinent episodes were reviewed.

**Results:** POUR was detected in 46% of total knee patients and 36% of total hip patients. Incontinence rates for knee patients decreased by 14% and by 2% for patients with total hip replacements.

**Discussion:** The literature supports the results stating that bladder scanning is important in decreasing POUR. In study phase 2, the enhanced recovery after surgery program resulted in more patients being admitted with indwelling catheters; continued decline in the number of patients requiring a scan may have effected protocol compliance.

**Conclusion:** A bladder scanning protocol decreases post-operative incontinence. Bladder scanning also helps decrease POUR by decreasing the potential risk of complications.

**Implications:** Bladder scanning is an effective way to screen for bladder distention by decreasing POUR and incontinence in postoperative patients with knee and hip replacements.

### MINIMIZING DISTRACTIONS AND INTERRUPTIONS AT THE PYXIS MACHINE THUS IMPROVING SAFETY



Primary Investigator: Ann Marie Culver, RN CAPA  
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 Co-Investigators: Alison Colburn, RN BSN CAPA, Nancy Falvey, RN BSN CAPA

**Introduction:** Being a part of a busy Day Stay Pre-op /PACU unit, where surgeons, residents, anesthesiologists, CRNA's and nurses congregate in our nurse's station, can create a loud and distracting environment. This is where our PYXIS machine is located. We wanted to minimize distractions and interruptions while removing medications to reduce the incidence of errors.

**Identification of the problem:** We surveyed 29 of our co-workers. Twenty –three out of twenty-nine surveyed said they felt distracted while at the PYXIS machine. Fifteen of the twenty-three admitted that this caused an error. Most of the errors were counting errors and did not reach the patient.

**EBP Question/Purpose:** Does implementing a safety zone around the PYXIS machine minimize distractions and interruptions thus improving patient safety?

**Methods/Evidence:** Studies show that medication errors can increase by 12.7% with each interruption. Distractions and interruptions early in the task process are most prone to errors

as opposed to errors in the later part of the task. Studies show there are three important steps to be taken to lesson interruptions during medication administration thus improving patient safety. First, there must be a safety zone to obtain, prepare and administer medication. Second, signs should be posted in areas of frequent interruptions. And third, education must be given to staff, providers, colleagues, patients and families about the importance of minimizing interruptions during the medication administration.

**Significance of Findings/Outcomes:** We implemented a safety zone which consisted of a square of red duct tape on the floor around the PYXIS, posted a sign to signify the safety zone and educated our colleagues. We conducted a post-implementation survey two months later. We concluded that designating a safety zone and educating staff overwhelmingly decreased distractions and interruptions at the PYXIS making it safer for patients.

**Implications for Peri-anesthesia Nurses and Future Research:** Implementing a safety zone around the medication dispensing areas can reduce medication errors and create a safer patient environment. At last years' National ASPAN Conference, only 50% of nurses we surveyed had a safety zone around their PYXIS. Forty-nine percent did not and twenty percent of those nurses stated they wish that they did have a safety zone.

### NASAL CANNULA VERSUS FACE TENT FOR OXYGEN DELIVERY IN THE POST ANESTHESIA SETTING



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**Introduction:** Different practices exist to safely oxygenate patients in the post-anesthesia care unit. The practice at Hunterdon Medical Center was to apply 40% face tent to each postoperative patient that received general anesthesia. A new anesthesia team at our facility introduced the practice of administering four liters by nasal cannula to our post-operative patients. A review of the literature was performed to evaluate the efficacy of the two different means of oxygen administration to post-operative patients who had received general anesthesia. There was a paucity of research comparing the two delivery systems in this patient population. To answer the question as to the difference between oxygen delivered via face tent and nasal cannula, I obtained IRB approval for a retrospective quality improvement study.

**Purpose:** The purpose of this study was to evaluate the difference between oxygen delivered via face tent and nasal cannula by measuring oxygen saturation and respiratory rate on admission to the PACU, 15 minutes and 30 minutes thereafter.

**Methodology:** A retrospective study looking at healthy adult patients receiving general anesthesia for laparoscopic cholecystectomy, knee arthroscopy and laparoscopic appendectomy. Outcome variables included oxygen saturation and respiratory rate both which were collected from a retrospective chart review.

**Results:** Data (n=124) were analyzed using a one-way Analysis of Variance (ANOVA). Resulting in p=0.16:indicating that there was no statistically significant difference between groups. This

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