#KnockTheNausea: Use of Aromatherapy in the Pediatric Perianesthesia Care Unit

Primary Investigator: Mary Daugherty BSN RN CPAN
C.S. Mott Children's Hospital - Michigan Medicine, Ann Arbor, Michigan
Co-Investigators: Jennifer Grady BSN RN, Stephanie Machalicek BSN RN,
Toni Szpara MSN RN ACNS-BC CNRN SCRN CCRN-K CPAN CAPA

Introduction: Post-operative nausea and vomiting (PONV) is a major cause of distress in the PACU (Post-anesthesia Care Unit). It is associated with an increased risk of potential complications, patient dissatisfaction, and delayed discharge. The prolonged stay in PACU directly affects the efficiency of our patient throughput. Nonpharmaceutical therapies offer an alternative to antiemetic therapies with benefits in being noninvasive and inexpensive.

Identification of the problem: PONV in the PACU setting is an important cause of morbidity in children. This puts patients at risk for complications including but not limited to dehydration, aspiration, wound dehiscence, and bleeding post operatively.

EBP Question/Purpose: PICO question. Databases utilized: In pediatric postoperative patients ages 5-18, does aromatherapy reduce the incidence of postoperative nausea and vomiting (PONV) and therefore improve patient/family satisfaction when used adjunctively with current practice?

- P Pediatric postoperative patients
- I Aromatherapy
- C Current state/practice
- O Reduced PONV and improved patient/family satisfaction Databases utilized were PubMed, Google Scholar, and CINAHL

Methods/Evidence:

- The IOWA model was followed
- Education for staff and families was created
- Utilized validated pediatric nausea/vomiting tools for patients/families in PACU
- Choice of ginger or peppermint offered to patient/family with PONV
- A survey was developed for nurses and patients/parents to document effectiveness of aromatherapy
- Inclusion criteria:
 - Patients undergoing the following surgical procedures:
 - Orchidopexy, testicular/ovarian torsion, inguinal hernia, hydrocelectomy, tympanoplasty/mastoidectomy, and eye muscle correction
 - Patients age 5-18
- Exclusion Criteria:
 - All other surgical procedures

C

Significance of Findings/Outcomes:

Pre-implementation: 3-month period of pharmacological and non-pharmaceutical interventions.

Post-implementation data: 3-month period pharmacological, non-pharmaceutical interventions,

Pre/post implementation PONV scores, and patient satisfaction scores post implementation.

Post-implementation findings:

- 150 patients met inclusion criteria
 - o 100 patients eliminated due to not completing survey
 - o 50 surveys completed
 - 20 completed correctly
 - 12 surveys eliminated due to denying nausea pre intervention
 - Total sample size of 8
 - 6 reported reduction in PONV
 - 2 reported no change or reduction in PONV

Regarding patient satisfaction data:

- 20 completed surveys
 - o 7 completed satisfaction survey, therefore sample size of 7
 - o 3 rated their experience "neutral"
 - o 4 rated their experience "satisfied/extremely satisfied"

Implications for perianesthesia nurses and future research: The use of aromatherapy is an integrative and holistic approach to help minimize PONV in post-operative patients. Patients achieved relief which aids in decreasing the chance of potential complications. Patients also had an increase in satisfaction post-operatively in the PACU.

Future goals: Integrate BARF tool/Likert scale into current electronic medical charting as an objective way to assess and document PONV within the institution.