

Aromatherapy Using Pre-Mixed Essential Oils

A Non-Pharmacologic Intervention for Postoperative Nausea and Vomiting

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Background/Introduction

Post Operative Nausea and Vomiting (PONV)

- Affects 20-30% of immediate post anesthesia patients⁵
- Reported as the most distressing aspect of patients' surgical experience^{3,4}
- Rated as more debilitating than postoperative pain and actual surgery⁴
- Significantly affects postoperative morbidity including dehydration, electrolyte imbalances, aspiration, and wound dehiscence²
- Major cause of patient dissatisfaction and delayed discharge of patients from PACU^{2,6}
- May result in unanticipated hospital admission, increasing health care costs⁵

Knowledge Focused Trigger

- The American Society of PeriAnesthesia Nurses (ASPAN) 2006 Guidelines include aromatherapy as a non-pharmacologic treatment for PONV¹

Problem Focused Trigger

- Incidence of PONV is 15.5% among ambulatory postoperative patients at Houston Methodist Sugar Land Hospital (HMSL) from May-June, 2015

PICO Question

- For patients in the immediate postoperative period, does the use of aromatherapy as an initial rescue intervention compared to antiemetic medications relieve postoperative nausea and vomiting?

Desired Outcome

- Improve PONV management in the immediate postoperative period.

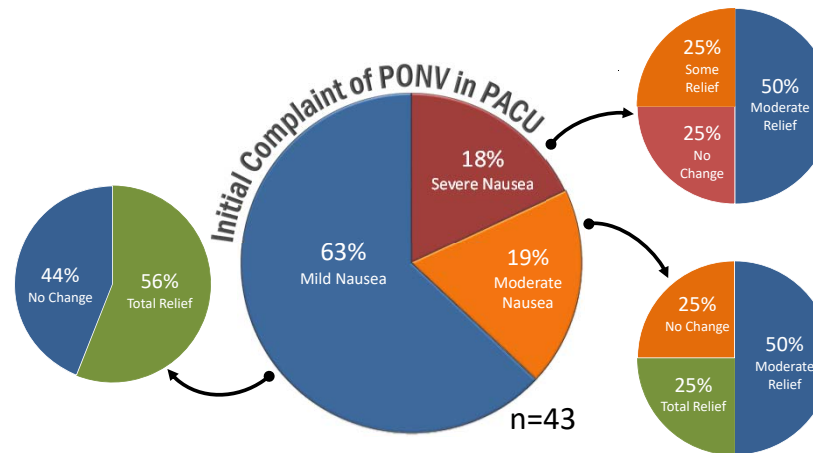
Method

- Framework: Iowa Model of Evidence Based Practice**
- ↓ Team Formation: PACU RNs (2) in collaboration with the Perioperative Clinical Practice Council
- ↓ Review of literature
- ↓ **Pilot Implementation of Aromatherapy Administration for PONV**
- ↓ Baseline data collection from May to June, 2015
- ↓ Development of Inclusion Criteria:
 - Outpatient surgery patients
 - >/= 18 years of age
 - Had general anesthesia
- ↓ Development of Exclusion Criteria:
 - Patient refusal
 - Sensitivity to scents
- ↓ Development of aromatherapy administration algorithm
- ↓ Development of data collection tool
- ↓ Staff education on:
 - Process of aromatherapy administration
 - Data collection
- ↓ Pilot implementation from September to October, 2015
- ↓ Evaluation of processes and outcomes
- ↓ Practice guideline modified
- ↓ **Change in Practice**
- ↓ Processes and outcomes monitored for 6 months
- ↓ **Result Dissemination**
- ↓ Hospital-wide, Hospital System-wide, and Nursing Conferences

Results

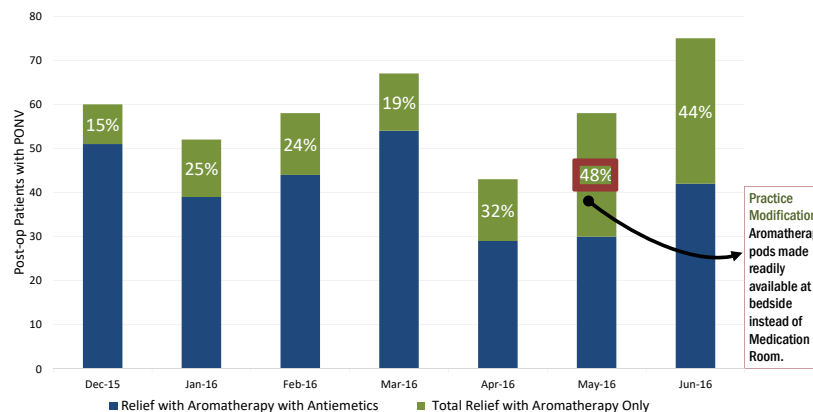
Pilot Implementation:

Relief of PONV After 5 Minutes of Aromatherapy

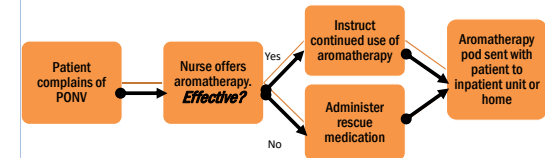


Post Change in Practice:

Total Relief of PONV with Aromatherapy



Algorithm for Post-op Aromatherapy



Pilot Implementation Results

- A total of 43 respondents were included in the EBP pilot implementation
- Results showed that aromatherapy was more effective in treating mild nausea than moderate nausea and was not able to totally relieve severe nausea
- Respondents who did not achieve total relief from nausea had 3+ Apfel risk score for PONV
- Among respondents, only 40% required antiemetic, a **60% decrease in antiemetic medication utilization compared to past practice.**
- Limitations: Low incidence of PONV among postoperative patients
- A survey data from Day Surgery and PACU nurses suggested that aromatherapy was easy to use, beneficial for the patients, and recommended for inclusion in the multi-modal treatment for PONV
- Favorable results of this EBP project prompted continued use of aromatherapy on AOD patients with PONV in the PACU.
- Implementation on inpatients started on Nov. 2015.

Change in Practice Outcomes

- Use of Aromatherapy as first rescue intervention for PONV, unless contraindicated, is fully implemented and adapted in Day Surgery and PACU.
- Utilization of aromatherapy pods was maximized when it was made readily available for nurses at bedside, cutting back on travel time spent by nurses when retrieving supplies from medication room.
- Continued request for Aromatherapy from admitted post-op patients.

Result Dissemination Outcomes

- EBP pilot implementation results and change in practice outcomes was presented to hospital-wide committees, increasing inquiries regarding use of aromatherapy from other nursing departments. Aromatherapy is currently being evaluated as a new item request for system-wide use.
- Other departments (i.e. Labor and Delivery Unit (L&D)) started aromatherapy trial on obstetric populations
- L&D RNs from HMSL in collaboration with RNs from two other hospitals within the Methodist system initiated a research project on aromatherapy for L&D patient population.

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