Temple University
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Does the Application of the Transdermal Scopolamine Patch Effectively Reduce PONV in Women of Childbearing Age?

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BACKGROUND

- Post-operative nausea and vomiting (PONV) screening and prophylactic measures pre-operatively are necessary to reduce the occurrence of PONV and the length of stay (LOS) in PACU.
- Up to 80% of high-risk patients experience PONV, increasing PACU stays, workload, and costs; multimodal prevention is recommended (Sizemore et al., 2022).
- The transdermal scopolamine delivery system (TDS) has become a strong contender as the first choice for a preventative drug in perioperative care because it has positive effects and a strong pharmacokinetic and pharmacodynamic profile (Antor et al., 2014).

PICO QUESTION

Does the application of the Transdermal Scopolamine Patch effectively reduce PONV in women of childbearing age?

PURPOSE

- The purpose of this retrospective chart review was to examine whether the application of the transdermal scopolamine patch (TDS) effectively reduced the risk of PONV and LOS.
- Determine if the patch is being underutilized in this high-risk population.

METHODOLOGY

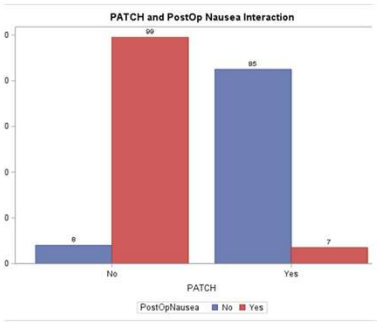
Sample : N = 199 postoperative patients

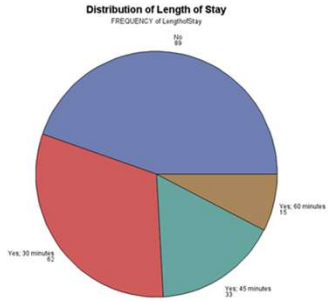
Inclusion Criteria	Exclusion Criteria
. Females . American Society of Anesthesiologist (ASA) category I or II, age (18-53), . Those who have undergone procedures with general anesthesia	. Females less than 18 years of age and greater than 54 years of age.

Intervention: Transdermal Scopolamine (TDS) patch is an FDA-approved, long-acting (72-hour) anticholinergic and antiemetic used for motion sickness, vertigo, and PONV prevention; the transdermal patch delivers 0.5 mg daily from a 1.5 mg reservoir (Apfel et al., 2010, Antor et al., 2014)

RESULTS

Apfel Scoring Tool: Assessed patient risk for PONV





- **Figure 1** (PATCH vs PONV interaction) has a strong correlation between TDS patch application and decreased PONV incidence.
- **Figure 2** (Distribution of Length of Stay) highlights the importance of prophylactic PONV measures for high-risk patients.

CONCLUSION

- TDS patches for PONV prophylaxis showed potential benefits and improved patient care
- Pre-operative PONV prophylaxis lowered LOS rates and healthcare costs
- Recommendation for pre-operative PONV screening and post-operative documentation is to increase the adoption of TDS patches.

REFERENCES