



# Does employing single-use translucent eye patches for eye protection in adult patients undergoing general anesthesia as opposed to reusing the same roll of tape across multiple patients decrease the possibility of infection?

Kendra Secrest, SRNA, Morgan Cook, SRNA  
Florida State University Panama City

## INTRODUCTION

- Various practices are used to protect patients' eyes during general anesthesia, including:
  - Medical tape rolls
  - Single-use eye patches
- At a large teaching hospital in central Florida, the common practice involves taping patients' eyes with medical tape reused for multiple patients.
- Research shows that multi-use surgical tape in the OR is contaminated with pathogenic bacteria due to:
  - Storage practices
  - Handling methods
  - Usage routines (Bernatchez & Schommer, 2021)
- Project aims:
  - Promote the use of single-use translucent patches instead of multi-use rolls of tape.
  - Prevent the transmission of pathogenic bacteria.
  - Improve patient safety (Chauhan et al., 2022).
- Additional goals:
  - Raise awareness among anesthesia providers about the role of surgical tape in bacterial transmission.
  - Educate providers to improve the standard of care for surgical patients (Bernatchez & Schommer, 2021).

## HYPOTHESES

- The use of multi-use medical tape for eye protection during general anesthesia increases the risk of cross-contamination, infection, and inadequate patient care, and standardizing the use of single-use alternatives will enhance patient safety and outcomes.

## METHODS

- Observation and Rationale: The practice change was inspired by identifying opportunities to improve eye protection during general anesthesia, as multi-use medical tape was the most common method prior to commercial eye patch availability.
- Provider Engagement: An informational flyer with evidence-based research and a survey was distributed to anesthesia providers, including questions on current practices, barriers to change, and willingness to adopt single-use materials.

## RESULTS

- 41 responses received from 280 anesthesia providers (73.2% CRNAs, 14.6% MDAs, 12.2% SRNAs). Most respondents (61%) had 1–4 years of experience.
- Preferred methods for eye protection included commercial eye covers (48.8%) and medical tape (43.9%), with 58.5% reusing tape rolls between patients. Concerns about switching included convenience, availability, cost, and lack of perceived complications.
- After reviewing the presented evidence, 39% of respondents were "very likely" or "somewhat likely" to adopt single-use materials, despite existing barriers.



## DISCUSSION

- Commercial eye patches were limited, and although some providers used transparent film, tape remained the common practice. Literature showed tape could transmit infectious bacteria between patients. We requested that commercial eye covers be stocked in all areas where anesthesia is used.
- Six months after eye covers became widely available, a survey revealed 83% of providers who used tape intended to switch to single-use eye patches, with cost and availability being common concerns. Over time, 100% of providers used the commercial eye covers when available.

## CONCLUSIONS

- The literature highlights the potential for adhesive tape to transmit pathogenic bacteria in healthcare settings, suggesting that anesthesia staff should consider this risk.
- Recommendations include: using single-use adhesives, storing tape in clean containers, educating staff on risks of multi-patient tape use, and discarding contaminated outer layers. These measures aim to reduce eye infection risks and improve patient safety.

## REFERENCES

- Bernatchez, S. F., & Schommer, K. (2021). Infection prevention practices and the use of medical tapes. *American Journal of Infection Control*, 49(9), 1177–1182. <https://doi.org/10.1016/j.ajic.2021.03.007>
- Chauhan, G., Upadhyay, A., Dwivedi, S., Tibbets, R. J., & Srinivasan, S. K. (2022). A microbiological assay of common operating room (or) tapes: Developing a culture for patient safety. *Cureus*. <https://doi.org/10.7759/cureus.31912>