

**Reducing Perioperative Corneal Abrasions:
The Impact of Standardized Eye Protection Processes**

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Introduction: In Q2 2024, RNs in the PACU noted an increased number of patients experiencing perioperative-acquired corneal abrasions. It was identified that there was not a standard practice in place to prevent or manage the injury across the perioperative continuum.

Identification of the Problem: Literature supports that corneal abrasions (CA) are preventable. Risk factors like diabetes, obesity, and HTN compromise optic nerve perfusion and can contribute to optic nerve injury when CA occurs. Increasing the RN's knowledge regarding risk factors, interventions, and escalation will decrease the incidence of CA.

EPB Question/Purpose: For all surgical patients in PACU that received anesthesia, does the implementation of creating a standardized practice in the peri anesthesia setting reduce the incidence of corneal abrasions versus no standardized protocol, to improve the management of and reduce the number of corneal abrasions?

Methods/Evidence: In Q3 2024, an interdisciplinary team was established to review and develop a standardized process for the prevention of perioperative acquired corneal abrasions (CAs). A comprehensive literature review guided the team in developing an evidence-based risk assessment tool and enhancing their knowledge to identify patients at high risk for developing CAs. Identified risk factors are communicated to the anesthesia team to ensure the implementation of appropriate eye protection measures. Post Anesthesia Care Unit (PACU) nurses maintain protective interventions until the patient is awake and able to follow instructions.

Significance of Findings/Outcomes: In Q2 2024, the perioperative CA injury rate was 0.61/1000 patient visits. After implementation of the countermeasures of instituting an evidence-based risk checklist, enhanced communication and intra and post operative protective measures the CA injury rate dropped to 0.30 in Q1 2025 and 0.0ytd in Q2 2025. The reduction in CA injuries validates the team's commitment to avoid preventable injuries in the perioperative setting.

Implications for perianesthesia nurses and future research: Peri-operative stakeholders took steps to reduce CA based on the evidence presented. The practice change has resulted in a significant reduction in CA injuries. The risk factor checklist and corresponding protective measures can be adopted in any organization's perioperative team. Future work can be explored to incorporate the risk factor checklist into the EHR and make it part of the routine standard of care for all patients undergoing operative procedures.