

Time is Vision: A Corneal Abrasion Protocol Initiation

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Introduction: Corneal abrasions are the most common ocular injury in the perioperative setting, occurring in up to 0.7% of non-ocular surgeries. While typically minor, these injuries can cause significant discomfort and prompt treatment is required to prevent complications. At Salem Hospital, no standardized protocol existed for treating corneal abrasions.

Identification of the Problem: Absence of an evidence-based protocol highlighted the inconsistency of treatment amongst providers and delays in patient care.

EPB Question/Purpose: In post-operative patients who develop corneal abrasions, does a standard protocol decrease the time to treatment compared to no standard protocol? The purpose of this project was to implement a standardized, evidence-based protocol to ensure timely treatment for perioperative corneal abrasions. The Cindahl database was used to locate peer-reviewed articles relevant to the PICO question.

Methods/Evidence: A multidisciplinary team of perioperative nurses, anesthesia providers, and an ophthalmologist collaborated to develop a corneal abrasion treatment protocol. Literature review and ophthalmologist recommendation supported the administration of erythromycin ointment as a first-line treatment. An electronic order-set was created based on best-practice evidence. Nurses were then trained to report symptoms of corneal abrasions to anesthesia providers and initiate treatment using the order set. Effectiveness was assessed through retrospective chart review, focusing on the number of corneal abrasions and time from symptom onset to antibiotic ointment administration.

Significance of Findings/Outcomes: During the 11-month pre-protocol period, 14,509 patients recovered in PACU. Of these, 22 patients displayed symptoms of a corneal abrasion. Chart review of these cases revealed an average time from symptom onset to treatment of 202 minutes, with only 14 patients receiving antibiotic ointment treatment. In the 11-month post-protocol period, 14,649 patients recovered in the PACU and 14 patients presented with symptoms of corneal abrasion. Chart review demonstrated a significant reduction in average time to treatment from 202 minutes to 14 minutes, with 12 patients receiving antibiotic ointment.

Implications for perianesthesia nurses and future research: A corneal abrasion protocol promoted timely, consistent and evidence-based treatment by equipping providers and staff with clear guidance for managing corneal abrasions. This initiative demonstrates the value of protocol-driven care.