

Abstract Title: Decreasing Corneal Abrasions at a Tertiary Hospital

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Background/Introduction: Corneal abrasions are the most common perioperative ocular complication, with a reported incidence of 0.03-0.17% following surgery. While the majority of corneal abrasions have an unknown origin, known causes typically involve mechanical injury, chemical injury, exposure keratopathy, or reduced tear production. This project sought to decrease the incidence of corneal abrasions at Froedtert Hospital through an educational initiative.

Methods: To decrease corneal abrasions at Froedtert Hospital, an extensive literature review was undertaken resulting in a team-oriented approach to develop interventions that fit the hospital environment and the academic community. Defined interventions were distributed during the first week of January. Interventions included:

- A corneal abrasion prevention bundle was prepared with 10 recommendations and presented to anesthesiology faculty, residents and CRNAs during scheduled academic time.
- Residents' new knowledge was applied to refine an intraoperative and postoperative protocol when assigned to their PACU rotation.
- The ophthalmology chief resident taught corneal abrasion examination technique to anesthesia residents. An educational video on the eye examination was posted on the departmental website for reference.
- PACU nurses were re-educated on how to patch eyes and oriented to new corneal abrasion protocols.

Results: Following these interventions, the incidence of corneal abrasions decreased by 39%. This decreased incidence was statistically significant ($p = 0.05$).

Conclusion: The clinical significance of the results indicates that simple measures including standardized protocols and education of anesthesiology personnel can impact the incidence of corneal abrasions. Teaching will be continued as part of the academic curriculum to capture new residents in training.

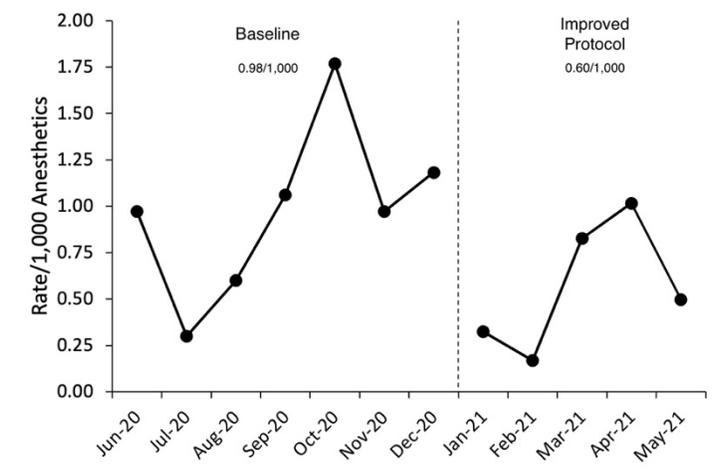


Figure 1: Incidence of corneal abrasions. Following interventions, the incidence of corneal abrasions decreased by 39% ($p = 0.05$).