

Background

Dental trauma is a common occurrence when administering anesthesia, and one of the more common malpractice claims brought against clinicians¹. Dental injuries, which are primarily linked to endotracheal intubation, are more frequently reported in patients with hidden oral and dental pathology. Published literature suggests that the incidence of dental trauma ranges from 0.04% to 12%.¹ To assess how our clinicians were performing against published literature, we reviewed all internal reports of dental trauma events from 01/01/2021 through 06/20/2022 and calculated an incidence of 0.02%. While this figure was more favorable than industry findings, we nonetheless sought to reduce the incidence of this often-avoidable occurrence.

Methods

Following thorough discussions with clinical leadership, we developed and implemented an awareness flyer and an ACCME compliant educational training course to better inform our clinicians about dental trauma. Course content was inclusive of dental anatomy with both acquired and congenital conditions, pathology, proper assessments, injury avoidance and best practices for reporting events. On 06/21/2022, a continuing medical education course was released to all clinicians through our online education platform (Litmos). By logging in and completing the online course, physicians could earn 1 AMA PRA Category 1 credit and CRNAs could earn 1 Class A CE credit.

Dental Trauma Event Rates

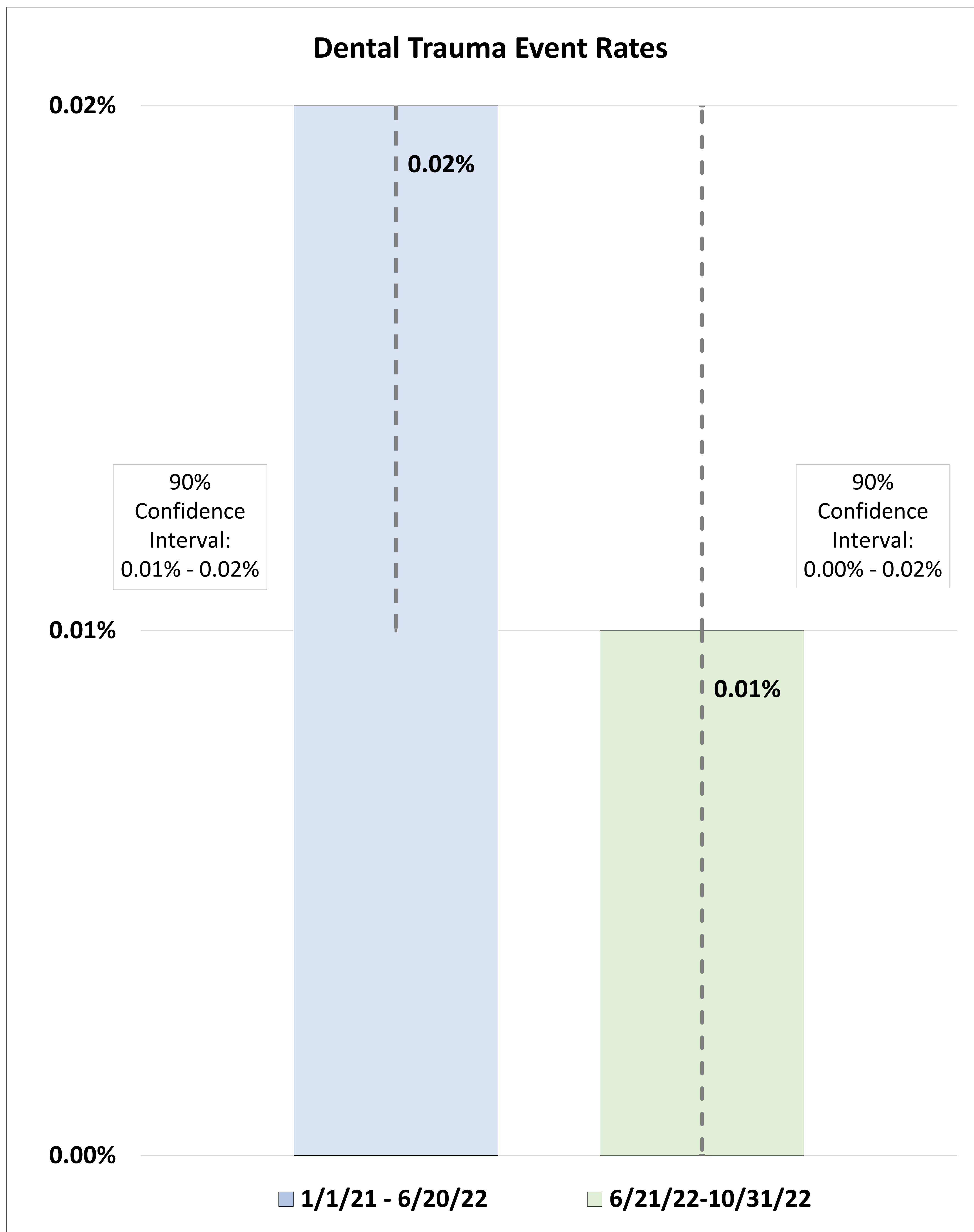


Figure 1. Dental Trauma Event Rates

Results

Clinician-reported dental trauma adverse events were recorded from 06/21/2022-10/31/2022 which allowed us to compare the incidence before and after release of the flyer and ACCME compliant learning activity. From 06/21/2022 through 10/31/2022, the incidence of dental trauma decreased from 0.02% to 0.01% (figure 1).

Conclusions

By raising awareness and providing ACCME compliant training to our clinicians, we were able to reduce the incidence of dental trauma from 0.02% to 0.01%. While our study was underpowered to demonstrate statistical significance, it suggests a larger study might be indicated to more conclusively demonstrate the efficacy of targeted education to reduce the incidence of perioperative dental injuries. After all, fewer dental trauma events yields safer care for clinicians and their patients. The financial and medicolegal impact of fewer dental trauma events will be considered in the next phase of our study.

References

1 Stein, K., & Aker, J. (2017). A Review of Dental Anatomy and Dental injury Associated With Anesthesia. AANA Journal. June 2017. Vol 85, No. 3.

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Contact Information