

## Correlation between last dental visit and likelihood of emergency visit.

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### BACKGROUND

Multiple studies have demonstrated an increase in utilization of emergency care throughout the nation in recent years<sup>1</sup>. The total number of dental emergency visits has increased and now makes up for a greater percentage of all emergency visits<sup>4</sup>. Dental trauma and pain due to dental caries have been cited as the most common causes of dental emergencies in hospital clinics. Dental trauma includes avulsions, intrusions, subluxations, concussions, and tooth fractures. Non-traumatic dental disease consists of pain associated with dental caries, abscess, cellulitis, and inflammation. When left untreated, dental caries can result in pain, infection, discomfort, reduced function, and reduced quality of life<sup>3</sup>. Non-traumatic dental disease makes up 38-73% of all dental emergency dental visits in the hospital setting<sup>5</sup>. There is an increasing trend in the frequency of hospital visits associated with non-traumatic dental diseases, which typically may be treated in a regular dental setting<sup>2</sup>. Without routine dental services, children are more likely to experience dental emergencies<sup>5</sup>. Preventative dental visits have the potential to significantly reduce the number of emergency dental visits<sup>6</sup>.

### OBJECTIVE

The purpose of this study was to determine if there is a correlation between time since a child's last dental appointment and increased rate of dental emergency visits at CMC Dental Clinic and Emergency Department.

### MATERIALS AND METHODS

A record of all patients who were billed for code D0140 (limited oral evaluation-problem focused) from 1/1/2022-12/31/2022 was generated. Emergency exam visit notes were reviewed to determine which patients would be included in study population. MCNA and Dentaquest Medicaid portals were accessed to determine each patient's dental home and date of last dental exam. Patients were then divided based on time between emergency visit and last periodic/comprehensive exam.

### FIGURES

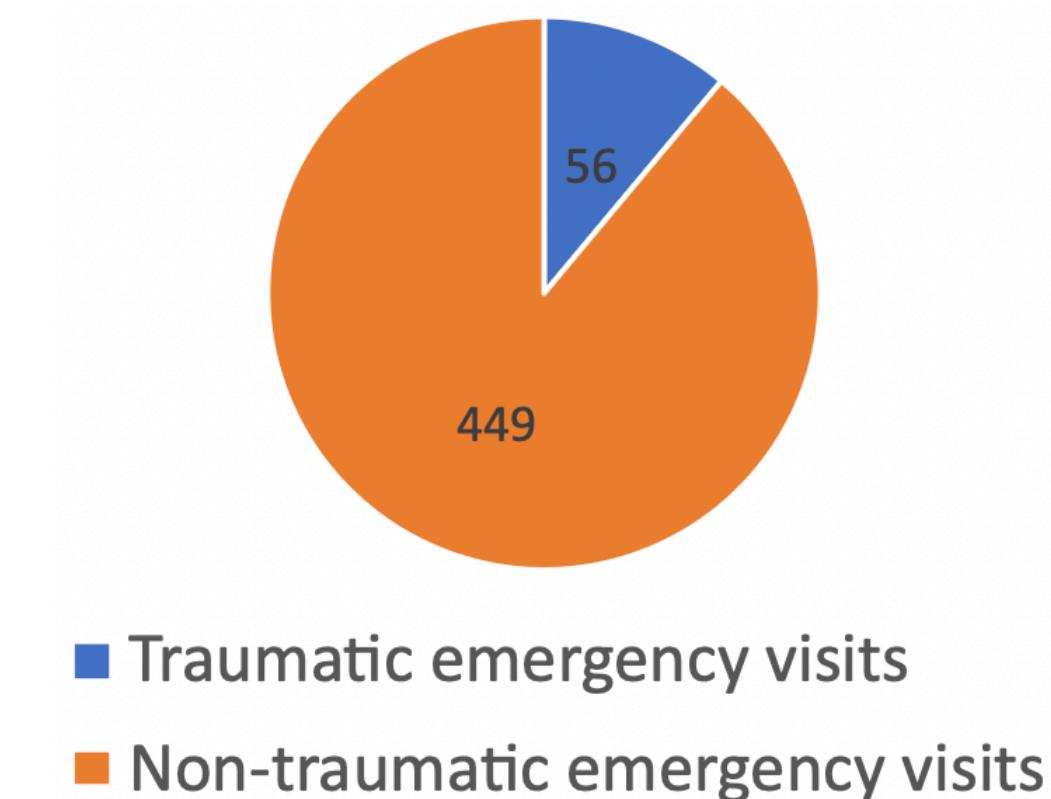


Figure 1. Number of patients who were seen for traumatic emergencies and non-traumatic emergencies.

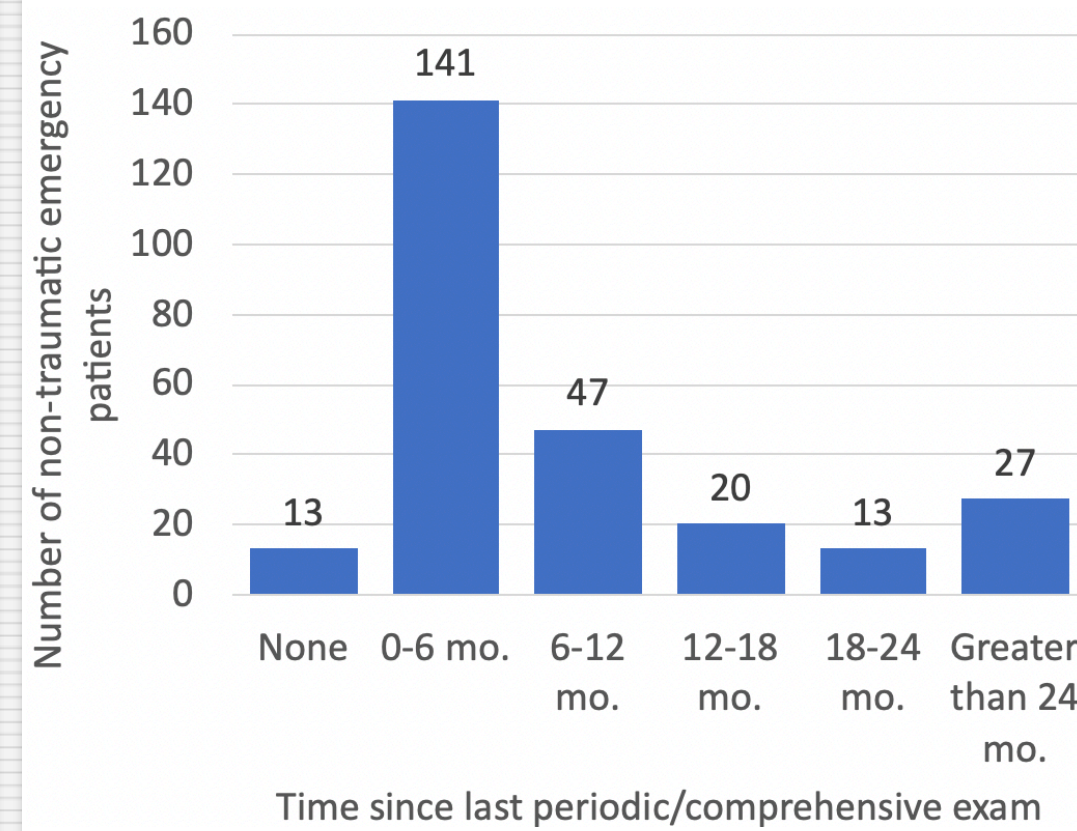


Figure 2. Number of non-traumatic emergency patients who were seen for periodic/comprehensive exams at different time intervals

### RESULTS

- 553 patients billed for D0140 (limited oral evaluation - problem focused) between 1/1/2022-12/31/2022
- 449 patients seen for non-traumatic emergencies
- 56 patients seen for traumatic emergencies
- 48 patients seen for non-emergent limited exams (i.e. OR follow-up, consult, etc.)
- Non-traumatic emergencies make up 88.9% of dental emergency visits
- 54.0% of patients in study population have been seen for periodic/comprehensive exam within 6 months of emergency dental appointment

### DISCUSSION/CONCLUSION

Study data indicate that a majority of emergency visits were due to non-traumatic emergencies which may be addressed in the dental clinic. Additional studies are required to determine barriers to treatment that result in emergency dental visits.

No increase in number of emergency visits noted as time since last dental exam increased. This indicates that additional variables may be involved in determining likelihood of emergency dental visit. Further studies are required to investigate additional factors involved.

Potential sources of error include patients being seen for exams but referred to Children's for treatment. A limitation of the study was the inability to review notes from previous dental exam to determine if patients were referred for treatment.

Additionally, patients may have experienced periods of Medicaid ineligibility, during which they may have been seen for exams that were not noted on Medicaid service history.

### REFERENCES

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