

# Characteristics of Emergency Department Utilization among Dental Patients

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## Introduction

- Dental caries, a treatable condition controlled with early intervention, can result in abscess and acute pain
- Non-traumatic dental conditions burden the emergency department (ED) with 2.2 million visits reported in 2012, a two-fold increase since 2000
- ED emergencies are costly and ineffectively managed (90% of dental emergency ED patients do not receive definitive treatment)
- Reasons for seeking ED treatment include lack of primary care dentist, perception of medical emergency/pain, inability to afford care, and convenience

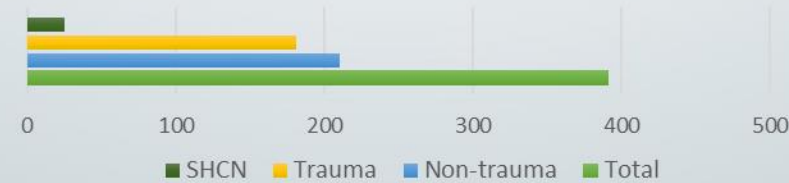
## Objective

To explore patient characteristics that may be associated with ED utilization for treatment that could have been provided in a dental clinical setting.

## Methods

- Patients from birth to 22 years old
- Non-traumatic dental emergency at the Children's Hospital
- Retrospective chart review of electronic health record data from the Children's Hospital ED and Columbia University Pediatric Dentistry Residency Clinic
- Pearson's Chi Square analysis, statistical significance of  $P < 0.05$
- Data normalized within age groups to percentage treated

Patients Evaluated in ED

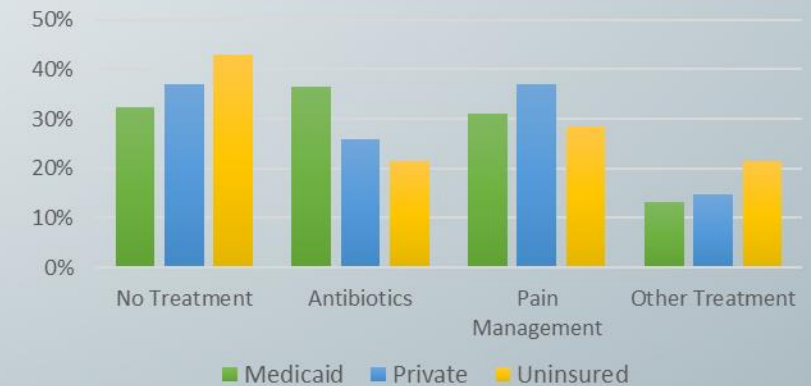


Treatment Type by Age



- Of 391 patients evaluated, 210 presented with non-traumatic dental problems, 25 (12%) of which had special health care needs
- Mean age was 8.6 years (median=7 years), 54% were male, and 151 (72%) were Medicaid beneficiaries
- Half (50%) had no provider on record or unknown last dental visit
- Most (n=184; 87%) presented with facial pain, with 71 (34%) requiring antibiotic treatment and 64 (30%) pain management
- One third (n=72; 34%) were discharged from the ED with no treatment. The majority (67%) were 9 years or younger.
- There is an association between age and pain management, p-value of 0.04.

Treatment by Insurance Type



## Next Step

A comparison to a control group would be the next steps for this study. Being able to establish a baseline group of patients that did not present to the ED and analyze their characteristics for comparison would allow a better understanding of those that do present to the ED.

## Discussion

With a greater sample size and control group, a further understanding can be gathered as why patients seek emergency versus preventative care. With this knowledge, support for patient education and advocacy can help avoid future hospitalizations.