

Understanding emergent needs prior to full mouth rehabilitation under general anesthesia for children at NYU Langone Sunset Park Family Health Center



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INTRODUCTION

Pediatric dentists require access to hospital operating rooms (ORs) to deliver safe and effective dental care to certain children.

Denial of access to ORs for general anesthesia (GA) has led to:

- Long waiting times of up to 12 months or longer
- Deferral of medically necessary dental care
- Dental pain
- Progression of caries
- Emergent treatment needs

PURPOSE

The **purpose** of this study is to understand the emergent dental treatment needs of children waiting for treatment in the OR under GA at NYU Langone Hospital, Sunset Park, Brooklyn, NY.

The **objectives** of the study are to measure and document the following:

- 1) How many children seen in the OR under GA required emergency treatment prior to dental treatment under GA?
- 2) What are the waiting times from date of consultation to date of dental treatment under GA?
- 3) What are the waiting times from date of emergent need to date of dental treatment under GA?
- 4) To describe the emergent dental needs of patients waiting for dental treatment under GA.

We **hypothesize** that the long waiting period for dental treatment under GA leads to emergent dental treatment needs.

STUDY METHODS

Study Design:

This is a single-site retrospective chart review study proposing to evaluate existing medical records in the Epic with Wisdom platform of pediatric patients seen at NYU Langone Sunset Park Family Health Center during a 1-year period.

Inclusion and Exclusion Criteria:

To be eligible for inclusion in this study, an individual must meet all of the following criteria:

1. Age: 2-13 years during OR visit
2. American Society of Anesthesiologists (ASA) I and II
3. Treated in OR at NYU Langone Sunset Park Family Health Center between September 1, 2021 and August 31, 2022

An individual who meets any of the following criteria will be excluded from this study:

1. Age: < 2 years and >13 years of age
2. ASA III and higher- these children are treated at NYU Langone Tish where protocols and waiting times differ.

Data Collection:

The following data points will be collected from Epic with Wisdom for research purposes:

- Date of Service (DOS) for OR
- Age of patient on DOS for treatment in OR
- DOS for Anesthesia Consult (AC)
- Age of patient on DOS for AC
- ED visit date for odontogenic pain or trauma
- Admitted date if child was admitted
- Walk-in visit date
- Emergency Medically Indicated Protective Stabilization (MIPS) extraction (EXT) date
- Emergency Oral Conscious Sedation (OCS) EXT date
- Emergency Restorative / palliative care under MIPS date
- Emergency OCS restorative / palliative care date
- Tooth / Teeth extracted
- Tooth / Teeth restored / palliative care
- Type of emergency visit reported: pain, fistula, intraoral swelling, extra oral swelling, inability to eat drink or sleep, fever, trauma / non-acute no dental infection, ED visit.

Pros and Cons of Data Collection Process:

Pros: data for all eligible patients will be assessed; standardized reports on pain-by-pain scale and automated calculations for waiting times are available

Cons: need to wait in queue for data report from Epic with Wisdom; dental providers differ in their documentation and detail regarding symptomatology and clinical findings; manual checking of chart data points that are not coded is necessary

RESULTS

- Descriptive statistics will be used to analyze emergency visits of patients prior to treatment in the OR to include recording types of visits ED vs MIPS, vs OCS, vs Admit, vs ABX prescription, and the number of visits.
- Univariate analysis of all variables will be conducted.
- Mean (SD) and N (%) will be reported for continuous and categorical variables, respectively.
- Two-sample t-tests will be used for continuous variables, while chi-square tests will be used for categorical variables.
- To determine whether a difference exists between the waiting times for the two groups of patients who had an emergency and who did not have an emergency, a t-test will be conducted.
- Counts, t statistics, and the accompanying p-value (significance <0.05) will be reported.

CONCLUSIONS

Conclusions will be drawn based upon the data gathered and analyzed, including patient demographics, waiting times for children not having emergent symptoms and those having emergent symptoms, the nature of the emergent needs, the age distribution of patients needing emergency treatment, and the treatments rendered.

The results of this study will be used to inform the OR scheduling of pediatric dentistry patients at NYU Langone Sunset Park Family Health Center.

SELECTED REFERENCES

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