

Introduction

Pediatric dentists often treat many young patients who may present with multiple challenges which include a lack of emotional maturity, being extremely fearful, and being pre-communicative. Dental rehabilitation under general anesthesia can protect their developing psyche[1]. Despite comprehensive treatment under general anesthesia, some patients require additional treatment which include advanced adjuncts such as nitrous oxide, oral sedation, passive restraint, or a second general anesthesia.

Purpose

This study aims to evaluate the trends of a young patient treatment after an initial dental rehabilitation under general anesthesia at Cohen Children's Medical Center (CCMC) in Queens, New York.

Methods

ASA 1 patients age 6 and under who had dental rehabilitation under general anesthesia during the year 2019 at Cohen Children's Medical Center (CCMC) were evaluated regarding:

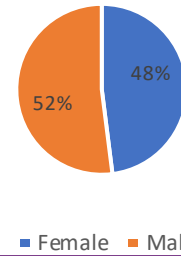
- Age
- Birth sex
- Translator needed
- Fluoride supplementation
- Subsequent treatment needed

Results

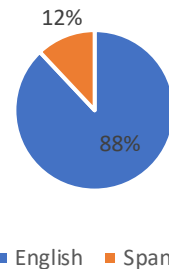
- 74% of patients did not require additional treatment after initial dental rehabilitation under general anesthesia.
- 2% required additional treatment under general anesthesia.
- 2% required additional treatment under oral sedation.
- 25% of patients who lived in fluoridated communities required additional dental treatment and 35% of patients who lived in non-fluoridated communities required additional dental treatment.

Findings

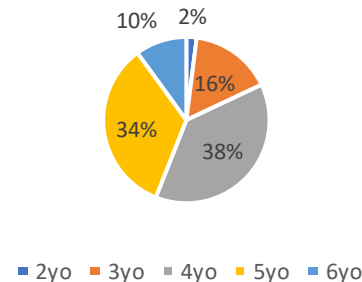
Percentage of Patients by Birth Sex



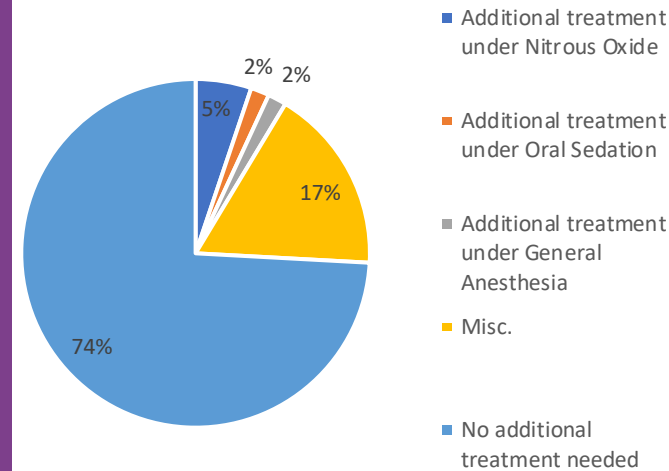
Percentage of Language used in Dental Office



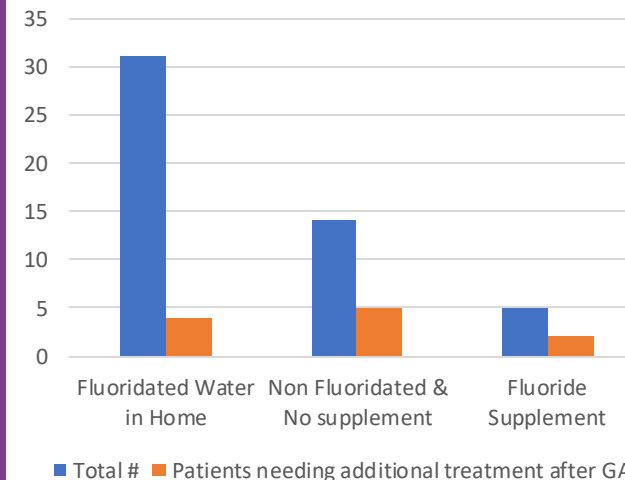
Percentage of Patients by Age



Treatment Trends After General Anesthesia



Treatment by Fluoride Supplementation



Conclusions/Discussions

- Young children often require additional treatment after dental rehabilitation under general anesthesia.
- Aggressive treatment planning would reduce the need for retreatment after the initial dental rehabilitation under general anesthesia (ex. SSCs would be a better alternative to 2-surface resin restorations).
- One of the risk factors for retreatment is living in a non-fluoridated community. Fluoride supplementation along with oral hygiene instructions, dietary recommendations, and close follow up would reduce retreatment rates.
- Further research is needed to evaluate which specific factors may make a patient more at risk of requiring additional dental treatments soon after general anesthesia for oral rehabilitation (ex. Follow up data, presence of dental home, social determinant factors).

References

- [1] American Academy of Pediatric Dentistry. Behavior guidance for the pediatric dental patient. The Reference Manual of Pediatric Dentistry. Chicago, Ill.: American Academy of Pediatric Dentistry; 2022:321-39.
- [2] Karl, Viktoria et al. "Retrospective Cohort Study on Potential Risk Factors for Repeated Need of Dental Rehabilitation under General Anesthesia in a Private Pediatric Dental Practice." *Children (Basel, Switzerland)* vol. 9,6 855. 8 Jun. 2022, doi:10.3390/children9060855
- [3] Kirby, Jen et al. "Repeat paediatric dental general anaesthesia at Sheffield Children's NHS Foundation Trust: a service evaluation." *British dental journal* vol. 228,4 (2020): 255-258. doi:10.1038/s41415-020-1256-9