# Retrospective Review: Oral Conscious Sedation Prior to General Anesthesia

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## INTRODUCTION

1. Dental caries is one of the most common chronic diseases, in children.[123]
2. Untreated caries in primary teeth was the tenth most prevalent condition affecting 621 million children worldwide.[4]
3. General Surgeon's report on Oral Health in America stated, Early Childhood Caries is five times more frequent than asthma.[5]
4. Children are often unable to handle dental treatment because of fear, anxiety, age, or physical or developmental disabilities.
5. Midazolam is used as a safe and effective drug for oral conscious sedation.
6. General Anesthesia provides the opportunity for single visit full mouth rehabilitation.

## PURPOSE

Compare the effectiveness of dental treatment under Oral Conscious Sedation (OCS) using midazolam only, in order to provide evidenced based treatment guide in choosing between OCS and General Anesthesia (GA).

## METHOD

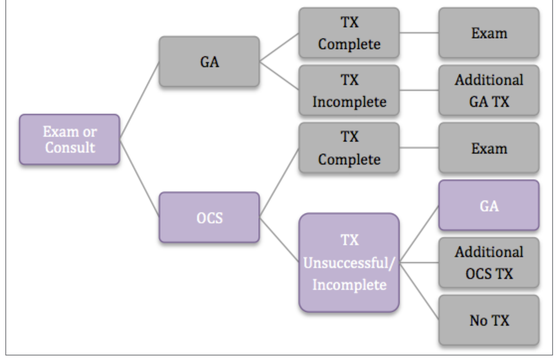
Reviewed charts of patients between 2017-2020.

**Inclusion criteria:** Patient ages 18–96 months, completed at least one OCS visit and required subsequent in-office GA visit.

**Exclusion criteria**: Patients that did not receive both OCS and GA excluded in this review, and any other treatment or data available in the records provided from another institution will not be included.

**Data Collection:** age, gender, time between visits, dental treatment accomplished during each visit, number of sedation appointments prior to the initial GA appointment and re-treatment completed under the first GA appointment.

### Oral Conscious Sedation to General Anesthesia




## RESULTS

- 77 children (49 males, 28 females) mean age of 4.2 years at initial exam completed at least one OCS appointment prior to the first GA visit.
- The mean number of OCS appointments prior to first GA appointment was 3.61
- The mean age of patient with unsuccessful oral conscious sedation appointment was 4.96
- The mean number of dental procedures completed under oral conscious sedation was 3.2
- The mean number of procedures completed under general anesthesia was 7.8.
- There was 23.59% procedural retreatment under general anesthesia.

### TABLE 1

| | Mean (SD) |
|---|---|
| **Number of OCS appointment prior to first GA appointment** | 3.61 (2.14) |
| **Age of patient with unsuccessful OCS** | 4.96 (1.08) |
| **Average amount of re-treatment (%)** | 23.59% |

Mean and (SD) are displayed unless otherwise indicated

### TABLE 2

| | Mean (SD) | | |
|---|---|---|---|
| | **OCS** | **GA** | **p-value^** |
| **Interval time between appointments** | 4.3 | 3.1 | 0.59 |
| **Number of dental procedures completed** | 3.2 | 7.8 | <.001 |

^T-test, unless otherwise indicated

=> No significant difference in interval times.

=> There is a significant difference in the average number of procedures completed during the first OCS appointment compared to the first GA appointment.

## DISCUSSION

1. This study focused on OCS patients with unsuccessful treatment; which indicated that no dental care was completed.
2. The data was not available related to the exact cause of each unsuccessful OCS appointment.
3. The common notation for unsuccessful OCS was poor behavior that posed a risk to the patient.
4. This study was part of a larger analysis of patient records.

## CONCLUSIONS

1. The results showed statistically significant difference in the average number of procedures completed during the first OCS appointment compared to the first GA appointment.
2. Children the under age of 5 requiring more than 7 procedures are more likely to undergo successful treatment using general anesthesia than a child over 5 with less than 4 procedures.

## REFERENCES

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