



# Efficacy of Teledentistry with Dental General Anesthesia in Pediatric Patients

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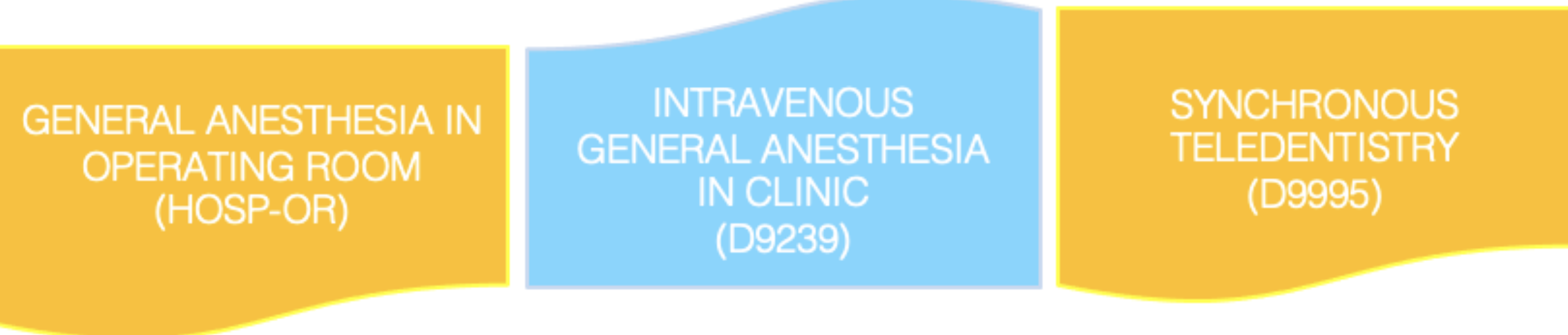


## INTRODUCTION

General anesthesia is widely recognized as a safe and effective modality for delivering comprehensive oral rehabilitation to pediatric patients presenting with behavioral challenges and complex medical conditions. In recent years, teledentistry has emerged as a viable adjunct to traditional care, offering enhanced access to specialty providers while mitigating common barriers such as transportation limitations, absences from work or school, and disparities in health literacy. Teledentistry consultations encompass discussions related to care coordination, treatment compliance, motivational interviewing, and patient–caregiver education. Community health workers facilitate synchronous video conferencing between the pediatric dentist and parent(s) with or without the child present. The overarching objective of teledentistry is to promote oral health knowledge and improve the care experience for both patients and their families. The present study seeks to evaluate the role and impact of teledentistry as an adjunctive service for pediatric patients who underwent dental treatment under general anesthesia.

## MATERIALS + METHODS

This retrospective study comprised of pediatric patients having Full Mouth Dental Rehabilitation under general anesthesia from 2023 to 2025. AxiUm dental software data generated patient charts from the use of dental codes:



Descriptive statistics were used to analyze the data. In addition, chi square test was performed to compare groups.

Table 1. Hazard Ratio of GA to First Recall

Parameter	HR	LCL	UCL	P Value
IVGA vs OR	4.283	0.893	20.548	0.069
Female vs Male	1.47	0.622	3.474	0.3797
Hispanic vs White	1.741	0.346	8.755	0.5012
African Amer vs White	0.161	0.008	3.288	0.2354
Other vs White	2.243	0.389	12.945	0.3665
ASA 2 vs 1	1.918	0.721	5.101	0.1919
ASA 3 vs 1	5.054	0.719	35.548	0.1035
Outside Dental Home vs UCLA	0.524	0.111	2.471	0.4138

## RESULTS

AxiUm records provided 633 patient charts that received full mouth dental rehabilitation with general anesthesia from 2023 to 2025. Teledentistry appointments were completed with 412 (65%) patients before or after general anesthesia and 82 charts were selected based on a table of random sampling. Patients either had IVGA (n=57 [70%]; F=26 [45%], M=31 [55%]) in the dental clinic or in the operating room (OR) (n=25 [30%]; F=12 [48%], M=13 [52%]). Recall appointments were recorded for 32 (39%) of patients after receiving general anesthesia with the remaining patients seeking care at an outside dental home. Twelve patients returned for a repeated restoration with only 1 case needing repeated general anesthesia; the other patients were managed in the dental chair. The difference between those that received IVGA and OR were not statistically significant using chi-square test ( $p > 0.588$ ). The difference between male and female were not statistically significant using chi-square test ( $p > 0.213$ ).

Time from GA to Sedation, GA, or Restorative Needs

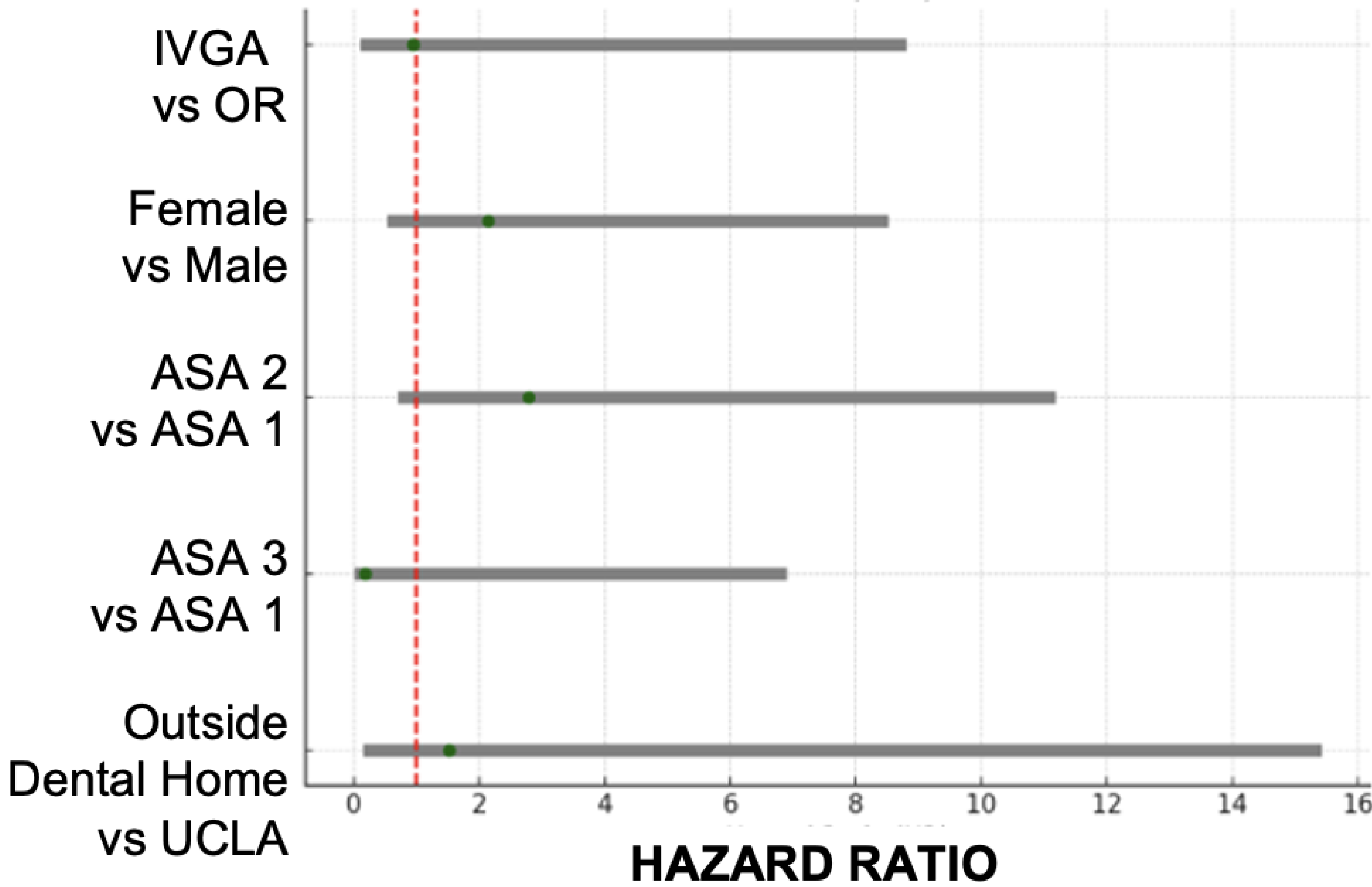


Figure 1. Hazard Ratio of GA to First Restorative Appointment

## CONCLUSION

The use of teledentistry will help create a foundation for more parent and pediatric provider engagement. Protocol will need refinement to improve patient care and outcome. More than 50% of patients traveled greater than 50 miles to UCLA Children’s Dental Center making teledentistry a valuable tool, saving frequent travel time and minimizing absences from work and school. *Special acknowledgements to our UCLA patients and parents, the section of UCLA Pediatric Dentistry, Dr. Ghafouri, Dr. Ansari, and Student Dr. Michelle Nguyen.*