

## Introduction

Prolonged operating room (OR) wait times in pediatric dental residency programs delay essential treatment for children requiring general anesthesia and often lead to worsening disease and increased emergency visits. This study examines how long programs wait for OR access and how they manage urgent dental needs through interim or alternative strategies. The findings offer a national overview of OR access barriers and highlight opportunities to improve care delivery, advocacy, and equitable access for pediatric patients.

## Purpose

The purpose of this study is to evaluate operating room (OR) wait times across pediatric dental residency programs and understand how providers manage dental disease and urgent cases during these delays. By analyzing OR access and interim care strategies, the study aims to identify system gaps and opportunities for improved patient care. The findings support efforts to enhance access, optimize resource planning, and promote equitable treatment delivery.

## Methods

In this cross-sectional study, an electronic survey was distributed to accredited North American Pediatric Dentistry residency programs. A total of 31 responses were received. Complete responses (n=28) were analyzed; incomplete responses were excluded (n=3). OR wait times were converted to months (weeks/4.345; days/30.44). For reported ranges, the midpoint was used; when multiple acuity-specific waits were reported, a min-max range was summarized and the midpoint used for distribution metrics.

## Results

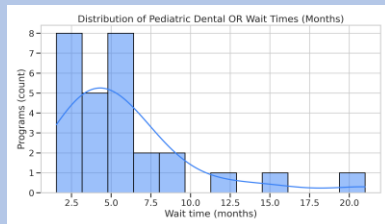


Figure 1. Distribution of pediatric dental OR wait times (months).

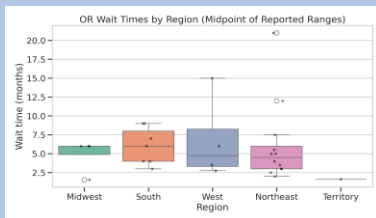


Figure 3. OR wait times by region (box + jitter; midpoint of reported ranges).

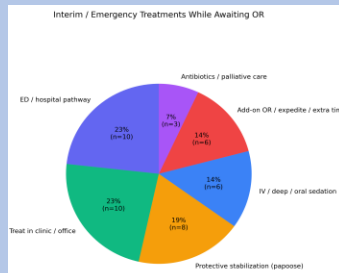


Figure 5. Interim management methods used by residency programs during prolonged OR delays.

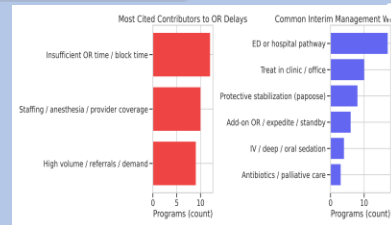


Figure 2. Contributors to delay (left) and interim management (right), coded from free-text responses.

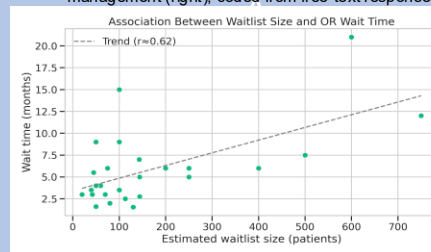


Figure 4. Association between waitlist size and OR wait time (trend line shows  $r=0.62$ ).

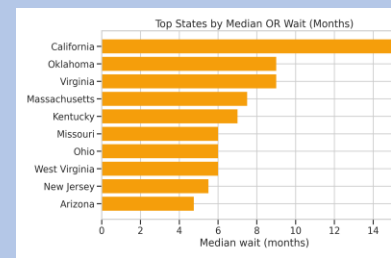


Figure 6. Top states by median OR wait (months; programs with quantifiable values).

## Results

- Programs analyzed: 28 with quantifiable data
- Median OR wait: 5.0 months (IQR 3.0–6.25; range ≈1.6–21.0)
- Wait time thresholds: ≥3 months 82%; ≥6 months 43%; ≥12 months 11%
- Regional medians: Midwest/South ~6.0 months; West ~4.75; Northeast ~4.5; Puerto Rico ~1.6 (n=1)
- Median waitlist size: 100 patients (IQR 51–200; range 20–1200)
- Association: Larger waitlists correlated with longer waits ( $r \approx 0.62$ ; exploratory)

## Discussion

- Prolonged pediatric dental OR wait times were common (median ≈ 5 months)
- Nearly half of programs reported wait times ≥ 6 months
- Larger waitlists were positively associated with longer wait durations
- Reported contributors included limited OR block time, staffing and anesthesia availability, and high referral volume
- Interim management strategies included ED pathways, in-clinic care when feasible, protective stabilization, selective sedation, and add-on OR cases
- These approaches represent pragmatic triage to control pain and infection while awaiting definitive OR care
- Findings identify modifiable operational targets: optimizing block allocation, dedicated pediatric dental OR access, and standardized urgent care pathways
- Improvements in these areas may reduce delays and support more timely, equitable care
- Study limitations include limited program responses (n = 31) and reliance on self-reported data

## References:

