

## Post-pandemic wait times for dental treatment under general anesthesia for ASA-I and ASA-II children

Neethu Sajeev, DDS; Carolyn Kerins DDS, PhD; Dan Burch, DDS; Nina S Ray, DDS  
Texas A&M School of Dentistry and Children's Medical Center and, Dallas, TX



### BACKGROUND

Pediatric dental patients with an ASA I and II classification can often be treated as an outpatient by utilizing behavioral and mild/moderate sedation techniques. Certain children in this category will need to be treated under GA for FMDR (dental restorative care), due to their very young age, extensive treatment needs, mild systemic diseases or physical/developmental/behavioral conditions.

The COVID-19 pandemic impacted healthcare system in multiple ways. Issues ranging from workforce shortage, healthcare policy modifications, supply chain insufficiency, procedural prioritization, to financial challenges faced by hospitals from lost revenues. Elective dental surgeries were limited as aerosol-producing procedures. While the world seems to have returned to normal, has the healthcare industry? Unique to this hospital, the day surgery pavilion was closed during COVID-19 and while it has since reopened to general surgery, no dental procedures are being performed.

### OBJECTIVE

To evaluate the effects of the COVID -19 pandemic on the waiting period for dental treatment under general anesthesia (FMDR) for ASA I and ASA II patients

### HYPOTHESIS

The wait time prior to the COVID-19 pandemic would be significantly less than that following COVID-19 due to multiple mitigating factors.

### MATERIALS AND METHODS

Retrospective cohort study conducted on CMC dental clinic FMDR patients between the following time frames:

- January 1, 2020-March 10, 2020 (Pre-COVID)
- June 1, 2020-February 28, 2021 (during COVID but restrictions due to aerosols)
- March 1, 2021-December 31,2021 (1-year post state-ordered shutdown of dental procedures; post-mask mandate by governor).

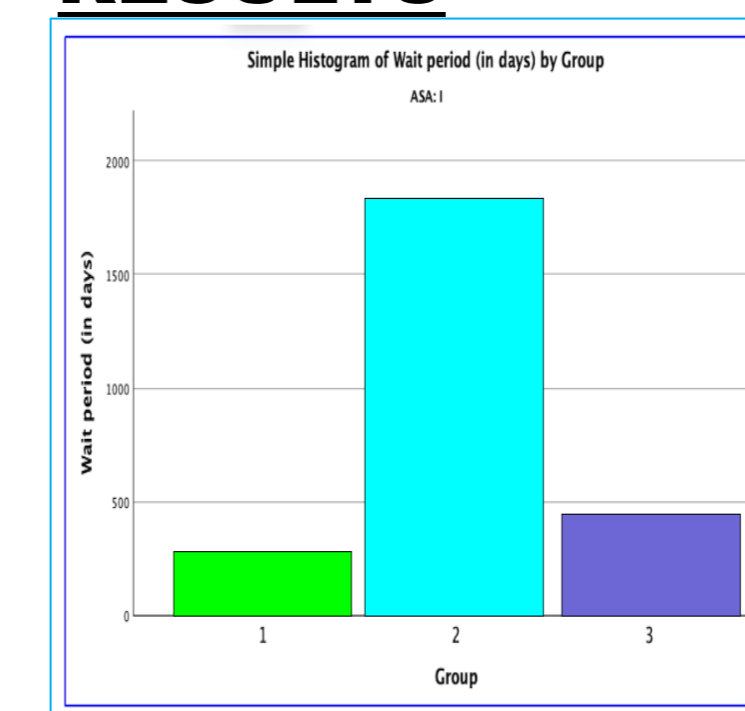
Data included: patient's age, ASA status determined by the treating anesthesiologist, the date of dental diagnosis, date when treatment took place in the OR, and the waiting time period (in days).

Inclusion criteria included: Children who are healthy or have mild systemic diseases (ASA I & II) under the age of 18, scheduled for FMDR in CMC Main OR within the timeframes included in the study.

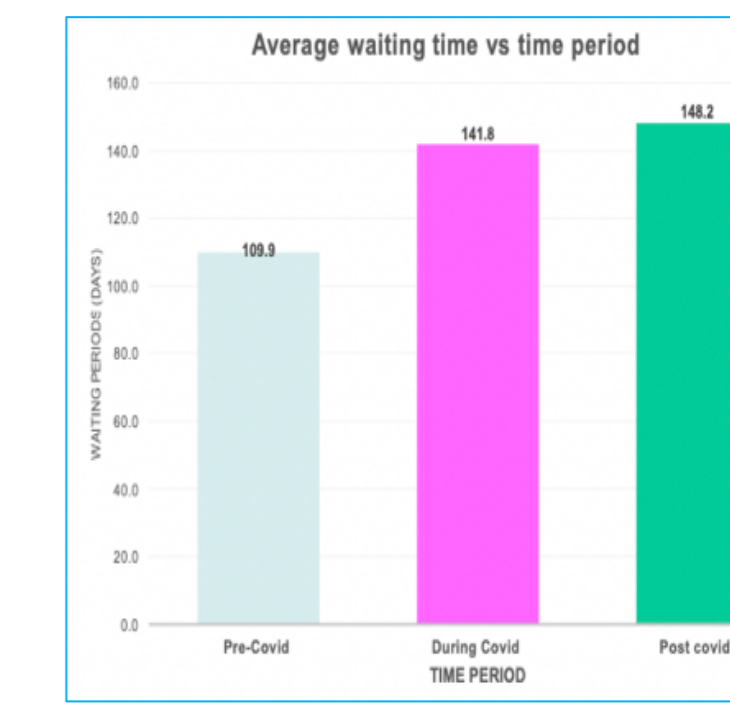
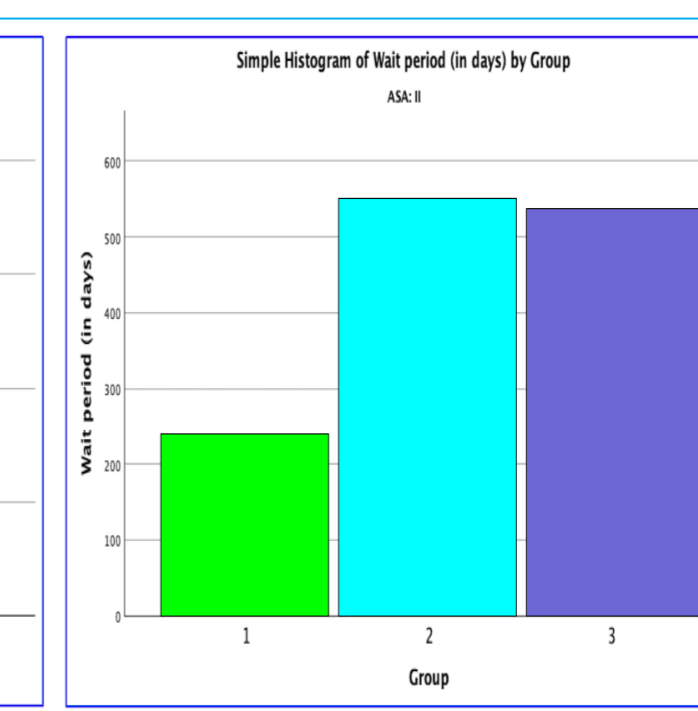
### RESULTS

- 291 patients met the inclusion criteria
- 93 patients were ASA I and 198 were ASA II
- Pre-COVID (group 1) had 41 patients, COVID (group 2) had 111 patients and Post-COVID (group 3) had 41 patients
- Treatment wait time ranged: 1-1818 days; median wait time 90 days
- Kruskal –Wallis test reveals statistically significant difference in OR wait times for both ASA I and ASA II children across pre- COVID, COVID and post- COVID time period.
- $H(2, N=291) = 25.54, P < 0.001$  with a mean rank of 119.88 days for pre- COVID, 123.03 days for COVID and 172.05 days for post- COVID time frames.

### RESULTS



ASA I and ASA II patients



ASA III and ASA IV patients

### DISCUSSION

- Wait time for ASA I and ASA II patients was statistically longer during and post-COVID than pre-COVID. When compared with the results of similar study at this institution looking at wait times for special needs children found “the average wait times, increased during the post-COVID period however, it did not find a significant difference in wait-times based on proximity to COVID 19 pandemic”. This could be attributed to the greater sense of urgency for ASA III and ASA IV patients due to their associated medical complexities and potential need for life altering surgeries (i.e., transplants, catheterizations) that preferably require dental caries be addressed first.
- While the dental service is currently keeping pace with ENT and other high volume services for total number of cases, it is doing so with greatly reduced blocked time, and limited numbers of dentists. This in turn, increases the wait time for FMDR. Other factors to be considered contributing to delays are NPO violations, no shows, URIs and rescheduling. With the data available in this study, it isn't possible to determine if there were other mitigating factors.

### CONCLUSIONS

1. FMDR wait times for ASA 1 and 2 patients at CMC was statistically longer during the COVID and post-COVID period compared to pre-COVID.
2. Improved documentation of reason for cancellation or rescheduling would allow better determination of cause of increased wait times post-COVID.