

BACKGROUND

At many urban teaching hospitals, the wait for dental rehabilitation under general anesthesia (DRGA) can be significant and sometimes as long as a year.¹ Extensive dental caries can cause significant pain and potential for infection. Common adverse events while waiting for DRGA include pain, sleepless nights, missed school days, and difficulty eating or drinking.^{2,3,4} Another common adverse event is patients needing to return to dental clinics for emergency treatment while waiting for DRGA. One study noted 25% of patients waiting for DRGA returned for emergency dental treatment, and the longer patients were waiting, the more likely they returned more than once for emergency treatment.⁵ While waiting for DRGA, patients often need medications to manage tooth-related pain and infection. One hospital noted that during an 18 month wait period for pediatric dental care under anesthesia that 41% of patients needed analgesics, 49.4% received antibiotics, and 19.6% were prescribed 2 or more courses of antibiotics.⁴ To minimize pain and infection while waiting for DRGA, it is important to create prioritization systems for patients waiting.^{3,6}

PURPOSE

To investigate adverse effects of extended wait periods for dental rehabilitation under general anesthesia (DRGA) and to improve prioritization of patients for DRGA to minimize adverse dental-related events.

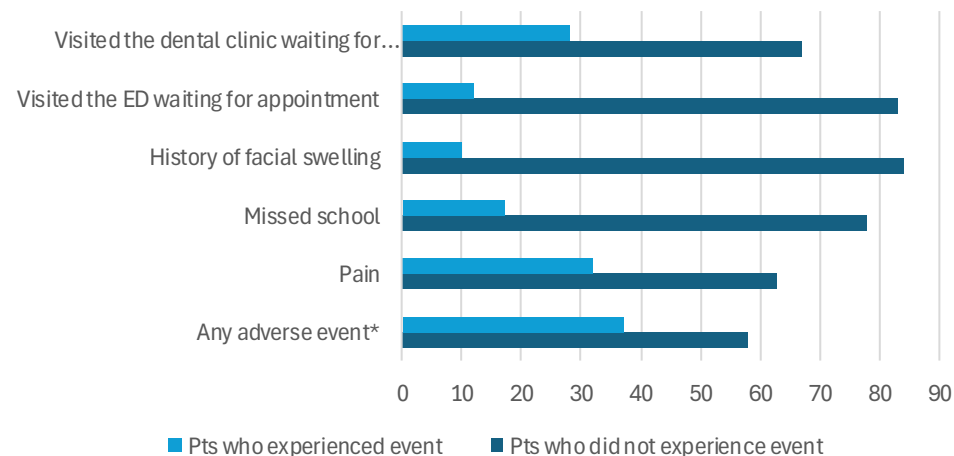
METHODS

After IRB approval, a retrospective chart review was completed on patients who received DRGA at Children's National Hospital. Information collected included: Initial appointment where DRGA was planned, DRGA date, age at DRGA, medical history, specialty service (if applicable) of joint case, pre-operative interim therapies, zip code, and any adverse experiences during wait for DRGA (pain, facial swelling, and missed school and visits to the Emergency Department or dental clinic for pain/abscess/swelling). Descriptive statistics were completed.

RESULTS

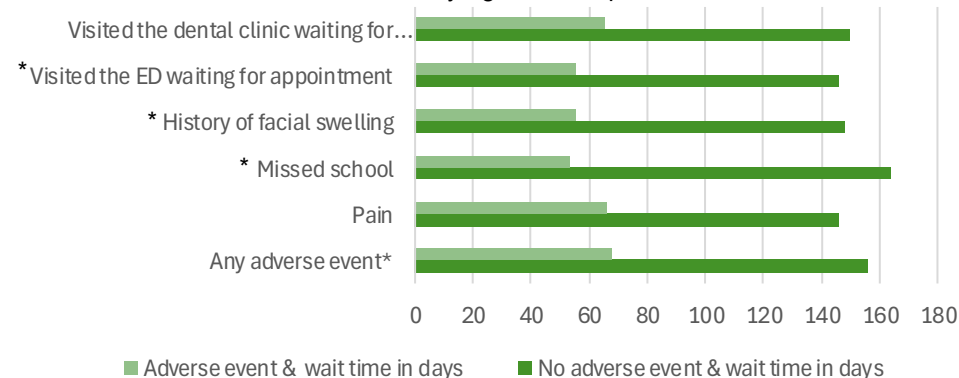
Patients in this study ranged from ages 2-19 years old with a median age of 7. Of the 95 patients, only 8.4% of patients had no medical conditions, 21% had cardiac conditions, and 32.6% had developmental/behavioral conditions.

Adverse events reported (n=95)



Wait time differences & adverse events

* Statistically significant w/ $p < 0.05$



Ninety-five patient charts were reviewed. Average wait time for DRGA was 164.3 days. Sixty-one percent of patients (58/95) did not report any adverse events while waiting for DRGA. The most common adverse event was dental pain (34%, 32/95). Patients who missed school, visited the ED, or had a history of facial swelling while waiting for DRGA had statistically significantly shorter median wait times compared to those who did not.*

DISCUSSION

This study shows that it is common for patients to experience adverse events while waiting for DRGA. These adverse events can include dental pain, facial swelling, missing school due to pain/infection/swelling, and visiting the ED or their dental clinic due to pain/infection/swelling. Those who experienced some adverse events had significantly shorter median wait periods. For patients needing DRGA, longer wait periods can lead to unnecessary patient adverse events. Prioritization of patients who missed school, visited the ED, or had a history of facial swelling while waiting for DRGA allowed for them to have short waiting times. With greater than 50% of patients in this study having medical burdens (cardiac or developmental/behavioral conditions), managing wait times of DRGA and subsequent adverse events can be challenging. The study is limited by its single-center design and small sample size. Future research should expand to pediatric teaching hospitals nationwide to validate these findings and further explore the patient impacts of wait periods for DRGA. Integrating prioritization systems to better manage wait lists can ultimately improve patient outcomes and minimize unnecessary dental-related pain and infection.

CONCLUSIONS

- The current dental operating room patient database at CNH demonstrates an appropriate prioritization system, as evidenced by decreased wait times for patients who missed school, visited the emergency department, or had a history of facial swelling.
- Implementing a systematic approach to identify patients at higher risk of experiencing adverse events while awaiting dental care under anesthesia will help ensure that patients receive care within an appropriate timeframe and before the development of any adverse events.

REFERENCES

