



## BACKGROUND

The aim of this study to address issues in treating pediatric cardiac patients in the Dallas/Fort Worth area regarding SBE prophylaxis. IE remains a life-threatening cardiac infection. In 2019, the estimated incidence was 13.8 cases per 100 000 subjects per year and accounted for 66,300 deaths worldwide.

After publication of the AHA SBE prophylaxis 2007 guidelines, 90% less patients qualified for antibiotic prophylaxis for a dental procedure. These major changes in recommendations have now been in practice for more than a decade.

While the guidelines have been effective, questions have been raised regarding their ambiguity and ease of use by clinicians resulting in an increased workload for cardiologists and delays in providing care for vulnerable patients. Therefore, the purpose of this study is to ascertain the background behind communication between cardiology and dental clinicians. In other words, how long does it take to receive a consult response? How complex is the patient and is SBE the only pertinent issue regarding these patients?

In order to consider possible changes to the AHA prophylaxis guidelines, this study sought to ascertain the underlying problems. For example, if the guidelines are accessible and are considered relatively easy to use, why are there so many consults being asked of cardiologists in the first place.

## OBJECTIVE

The purpose of this retrospective study is to discern the waiting times for a cardiac consult, the ASA pattern of cardiac patients being brought to the OR in Children's and the relationship between ASA status and need for SBE prophylaxis.

## MATERIALS AND METHODS

A retrospective review was conducted on all cardiac patients who were treated for full mouth dental rehabilitation at Children's Medical Center Dallas Main Operating Room requiring a cardiac consult between the following time frames:

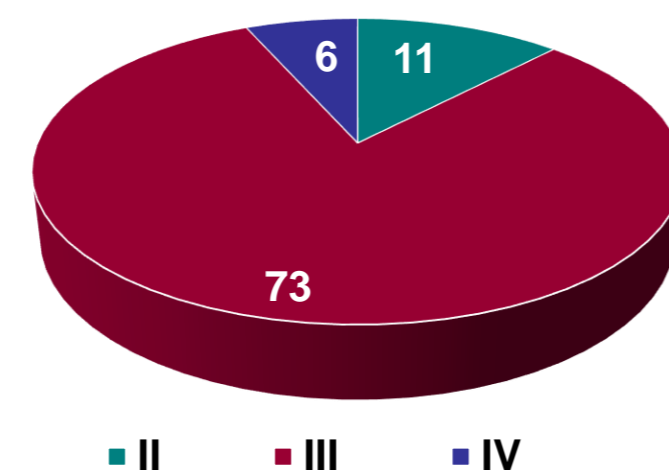
January 2020-June 2021  
January, 2023-November,2023

Information collected was: patient's age, their ASA status determined by the treating anesthesiologist, days until a consult is returned, distribution of patients by hospital site, SBE prophylaxis need correlation with ASA status.

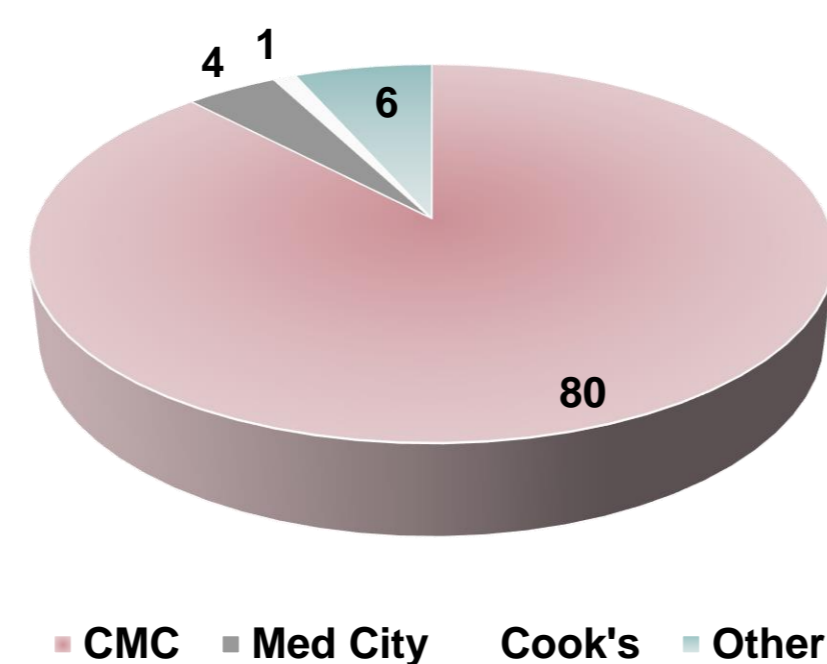
Inclusion criteria include: Children with cardiac healthcare needs (ASA II, III, IV) under the age of 18, scheduled for full mouth dental rehabilitation in the Main OR with a need for cardiac consultation.

## RESULTS

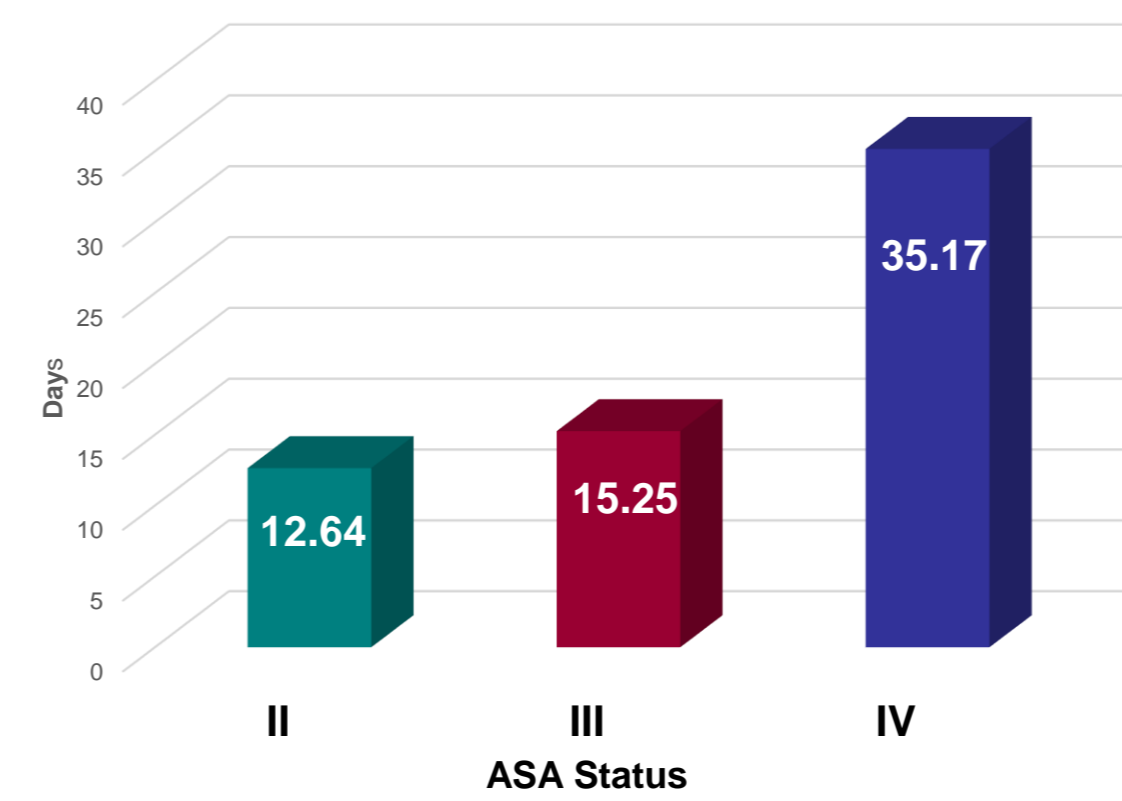
Distribution of patients by ASA status



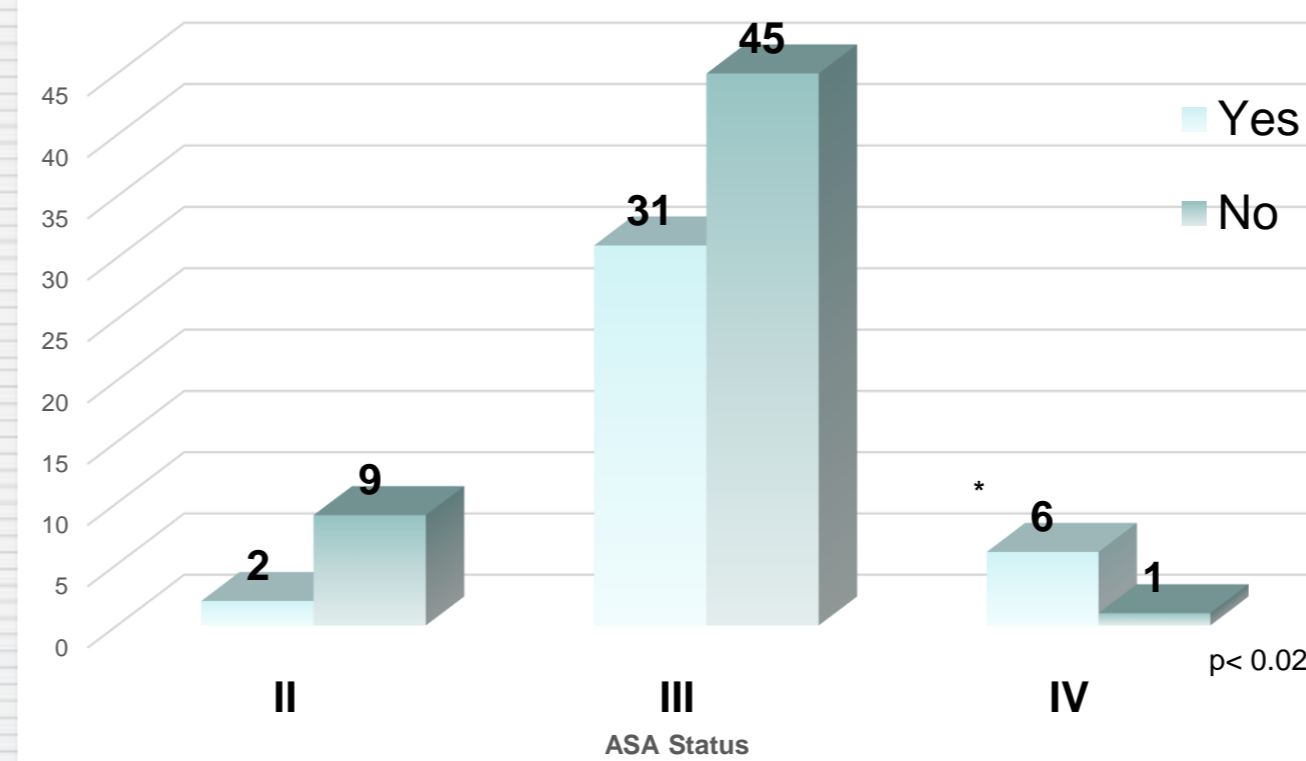
Distribution of patients by cardiologist site



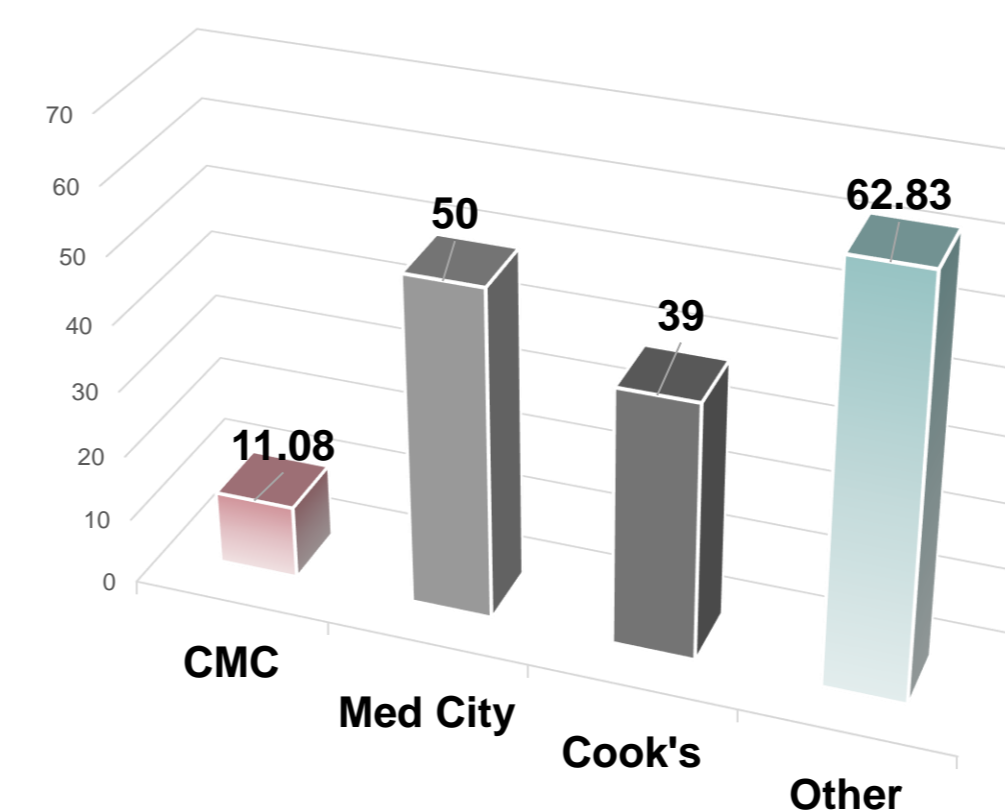
Days until consult returned



SBE Prophylaxis vs ASA Status



Number of days for consult to be returned



## DISCUSSION

The majority of the patients brought to the OR were ASA III with ASA IV having the longest average wait times for a returned cardiology consult. This is likely owing to the need for additional questions other than SBE prophylaxis such as need for admission.

We found that wait times for a consult response per hospital were shortest for Children's hospital. Reasons being our longstanding relationship with the Children's cardiology team and the relatively easy transmission of information on the EPIC platform.

It is not atypical to have communication issues with outside hospitals hence the increased wait for a response and the resultant delay in FMDR scheduling.

The results of SBE versus ASA status were interesting in that the assumption would be that patients with ASA III would need SBE prophylaxis. However, it was found that 59% of ASA III patients did not require SBE. For ASA IV, it was found that 14% of patients did not need prophylaxis. The assumption here would be that all ASA IV patients would need SBE. This data therefore shows that ASA cannot be used as a standardized method for designating need for prophylaxis and that medical management of these patients is more complex.

## CONCLUSIONS

This study shows the need for better clarification of AHA guidelines. In some instances, the wait time for a cardiac consult was up to 63 days, delaying the treatment of these medically complex children. The question needs to be asked, if there was less ambiguity in the AHA guidelines, is there a need for a cardiac consultation in the first place? There is a need for further research to be conducted regarding dental clinicians' perception of the AHA guidelines.

## REFERENCES

- Wilson et al. Prevention of infective endocarditis: Guidelines from the American Heart Association JADA, 2008. Vol. 139
- Delgado et al. 2023 ESC Guidelines for the management of endocarditis. European Heart Journal (2023) 00, 1–95.