Patient Factors Affecting Rate of Dental Follow-up After Oral Antibiotics

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Introduction

- Conservative use of antibiotics is recommended in the pediatric dental population[1].
- Oral antibiotics should not be administered in place of definitive treatment, in the absence of systemic infection.
- After oral antibiotics are prescribed, follow-up care is indicated.
- Currently, there is a lack of literature on rate of follow-up treatments after administration of oral antibiotics for dental reasons.

Objectives

- Investigate the rate of follow-up visits for definitive dental treatment after a course of antibiotics is prescribed.
- Determine if there is a relationship between the rate of follow-up and patient-specific characteristics.

Methods

This retrospective study is a comprehensive chart review including patients 0 to 22 years old who presented to Boston Medical Center from October 2018 to June 2023 for a dental reason and were prescribed antibiotics. Variables collected include gender, race, insurance, THRIVE assessment, special healthcare needs, and whether a primary or permanent tooth was affected.

Results

Table 1. Demographic characteristics of the study population (n=81)

Demographic characteristic	n	%
Gender		
Male	44	54.3
Female	37	45.7
Race		
African American	38	46.9
Hispanic	20	24.7
White	3	3.7
Asian	2	2.7
Not disclosed	18	22.2
Insurance		
Medicaid	67	82.7
Other	14	17.3
THRIVE*		
High	17	21.0
Low	25	30.0
Not disclosed	39	48.1
Medical history		
SHCN	18	22.2
Non-contributory	63	77.8

*THRIVE is a risk assessment used at Boston Medical Center, and contains questions pertaining to housing, food security, transportation, and other social determinants

Figure 1. Follow-up modalities post-antibiotics

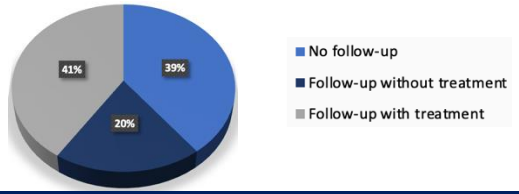

Table 2. Comparative rates of follow-up by age, affected dentition, THRIVE risk, and medical history

Age (years)	Follow-up	No follow-up	*P* value
<8	39.5% (n=32)	29.6% (n=24)	0.498
≥8	21.0% (n=17)	9.9% (n=8)	

Affected dentition	Follow-up	No follow-up	*P* value
Primary	55.6% (n=45)	29.6% (n=24)	0.054
Permanent	4.9% (n=4)	9.9% (n=8)	

THRIVE	Follow-up	No follow-up	*P* value
High	11.1% (n=9)	8.6% (n=7)	0.867
Low	19.8% (n=16)	11.1% (n=9)	

Medical history	Follow-up	No follow-up	*P* value
SHCN	13.6% (n=11)	8.6% (n=7)	0.952
Non-contributory	46.9% (n=38)	30.9% (n=25)	

Statistical analyses were performed using Chi-square test with Yates correction. Fisher's exact test was used for statistical analysis of the "Affected dentition" data. P-values were tested against a significance level of 0.05.

Conclusions

- Our findings do not suggest any statistically significant relationships between rate of follow-up after antibiotics and patient-specific factors.
- Clinicians should be aware of possible loss to follow-up when prescribing oral antibiotics in the setting of acute pulpitis.

References

1. Dentistry AAoP. Use of Antibiotic Therapy for Pediatric Dental Patients. *The Reference Manual of Pediatric Dentistry*. 2023:537-541.