

# Follow-up after Oral Antibiotics for Emergency Department Dental Conditions

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## Introduction

- Appropriate antibiotic use is recommended in pediatric dentistry.
- Children presenting to Emergency Departments (EDs) with dental complaints often receive oral antibiotics without signs of systemic infection or definitive treatment.
- There is also concern regarding loss to follow-up.
- This study evaluates follow-up patterns and rates of definitive treatment after ED antibiotic prescriptions.

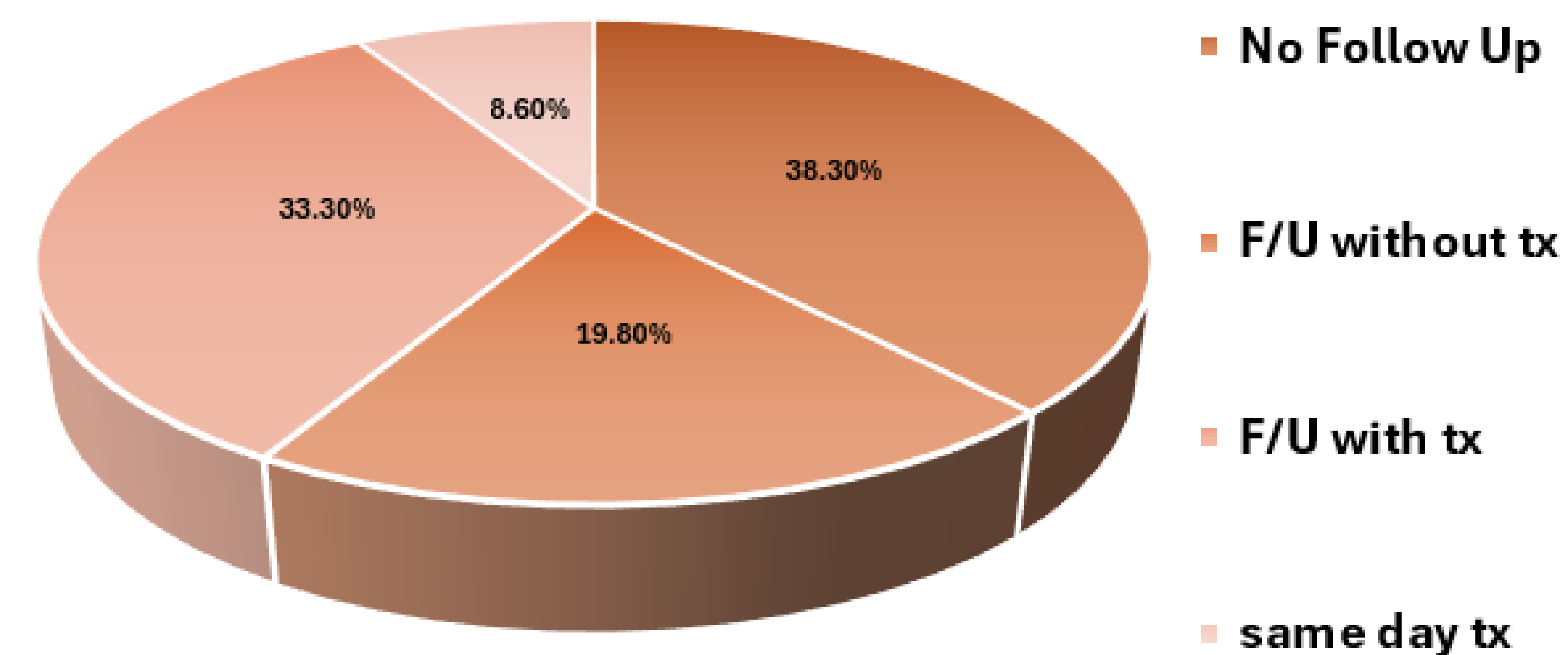
## Materials & Methods

- Retrospective chart review of patients aged 0–22 years presenting to the Boston Medical Center Emergency Department (ED) between October 2018 and June 2023 with dental complaints and prescribed oral antibiotics.
- Outcomes categorized as: no follow-up, follow-up without definitive treatment, follow-up with definitive treatment, and same-day definitive treatment.
- Variables collected included age group, dentition, presence of special health care needs, and THRIVE social risk screening.
- Statistical analysis was performed using chi-square tests with Yates correction; Fisher’s exact test was used for dentition.

## Results

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

Demographics Characteristic (N=81)	n	(%)
<b>Gender</b>		
Male	44	54.3
Female	37	45.7
<b>Race</b>		
African American	38	46.9
Hispanic	20	24.7
White	3	3.7
Asian	2	2.5
Not disclosed	18	22.2
<b>Insurance</b>		
Medicaid	65	80.2
Other	16	19.8
<b>THRIVE*</b>		
High	17	21
Low	24	29.6
Not disclosed	40	49.4
<b>Medical history</b>		
SHCN	18	22.2
Non-contributory	62	76.5



**Figure 1. Follow-up Modalities (n=81)**

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

Age group	Follow-up n (%)	No follow-up n (%)	P value
< 8	33 (58.9)	23 (41.1)	0.6
≥ 8	17 (68.0)	8 (32.0)	
Dentition	Follow-up n (%)	No follow-up n (%)	P value
Primary	46 (68.7)	21 (31.3)	0.049*
Permanent	4 (36.4)	7 (63.6)	
THRIVE	Follow-up n (%)	No follow-up n (%)	P value
High	10 (58.8)	7 (41.2)	1
Low	15 (62.5)	9 (37.5)	
Medical history	Follow-up n (%)	No follow-up n (%)	P value
SHCN	11 (61.1)	7 (38.9)	1
Non-contributory	39 (62.9)	23 (37.1)	

-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.  
 \*Emergencies of permanent dentition were significantly more likely to follow up than emergencies of primary dentition.

## Conclusions

- Most pediatric patients prescribed oral antibiotics in the Emergency Department did not receive definitive dental treatment, and many had no documented follow-up.
- Definitive treatment completion was significantly higher among Medicaid patients and more common in children aged ≥8 years. (Data not shown)
- These findings suggest that insurance status and age may influence treatment completion and highlight the need for improved referral pathways and ED protocols to ensure timely definitive dental care when antibiotics are prescribed.

## References

