Dog Bites are a common and preventable cause of traumatic injury in pediatric patient populations. There is no consensus on prophylactic antibiotic necessity, duration, and type in pediatric dog bite injuries. The objective of this study is to characterize the antibiotic usage in dog bite injuries seen at a Level I pediatric trauma center in the southwest United States, with a focus on antibiotic type, duration, and infectious outcomes. We reviewed the charts of children <18 years old treated for dog bite injuries at a free-standing academic children's hospital between 2014-2016. Variables were collected to characterize demographics, bite incidence, injury, hospital course, infection, and antibiotic use. Descriptive statistics, Student's t-test, and Wilcoxon rank-sum tests were used for analysis.

Demographics
- Age (yrs)*: 6, (3-10)
- Sex (male): 325 (59%)
- Soft tissue injuries: 524 (94%)
*Median, IQR

Hospital Course
- 25% admitted, 75% treated in EC and discharged

Infection (n=31)
- Patients with infection: 58% repaired in OR
- Patients without infection: 26% repaired in OR

Location of repair

Total antibiotic duration
- Patients with infection: mean 9.6 days
- Patients without infection: mean 12.6 days

Discharge antibiotic duration
- <7 days
  - No infection: 17 (54%)
  - Infection: 280 (53%)
- >7 days
  - No infection: 14 (46%)
  - Infection: 243 (47%)

Conclusion
- Dog bites in children have low infection rate with appropriate wound care
- Variability in antibiotic use exists in our center
- Discharge oral antibiotic duration and total antibiotic days are not associated with development of infection; thus, minimizing antibiotic use can be considered.

References

1. CDC. Nonfatal Dog Bite-Related Injuries Treated in Hospital Emergency Departments. CDC 2011.