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**MSA Abstract:**

**Title: Incidence Outcome and Health Care Utilization of Dog Bites at Children's Hospital Colorado**

**Background:** Dog bites in children have always been a major problem in the U.S. and other parts of the world where children and dogs coexist in the same household. The most common location of dog bites in young children is the head and neck region, which happens in approximately 82% of attacks.

**Objectives:** A retrospective review of charts from patients treated at Children's Hospital Colorado was performed to find out what resources are required for complete healing/treatment of dog bites. The purpose is to make parents who have children and dogs in their household more aware of the personal and health care burden of dog bites.

**Methods:** Children aged 0-18 years, treated for head and neck bites at CHCO from 2012 to 2017, were included in our study. Demographics, dog breed, wound location, hospital course, management, and complications were recorded for each individual patient by one investigator using EPIC electronic medical care system and Research Electronic Medical Capture (REDCap) system for data collection.

**Results:** Four-hundred and sixty children aged 0 to 18 years (mean, 5.23 years) were included. The cheek (47.8%), mouth (33.3%), and eye area (23.5%) were the most commonly bitten areas. Labrador retriever (n=31), pit bull (n=27), and chihuahuas (n=18) were the most commonly involved dog breeds. One-hundred and twenty-three (26.7%) of patients required repair only using local anesthetic at the emergency department, 100 (21.7%) required conscious sedation in addition to local anesthetics, fifty-seven (12.4%) patients required repair at the operating room, and 180 (39.1%) patients required no repair at all. Despite thorough irrigation and debridement (I&D) of wounds before primary closure/treatment and use of antibiotics, infections happened in 69 (15%) of patients.

**Conclusion:** Physical limitations and parents' unawareness of the dangers that dogs pose to children make them vulnerable to dog bite injuries to the head and neck region. Most patients successfully recover after treatment at the emergency department, with only a small percentage requiring intervention in the operating room. Infection rates of bites tend to be low, but further investigation regarding their prevention must be done.