

# UNIVERSITY OF MICHIGAN HOSPITALS AND HEALTH CENTERS AND EMERGENCY DEPARTMENT

## PROTOCOL

Animal Bites (excluding Monkey and Snake Bites)

## PURPOSE

To establish a protocol for care of patients presenting with animal bites excluding monkey and snake bites.

## ACTIONS

1. Inform the patient that the Washtenaw County Public Health Department strongly encourages dog bite victims to submit their incident information within 24 hours of the biting to:

Washtenaw County Animal Control (734) 794-6920

Livingston County Animal Control (517) 546-2154

Wayne County Animal Control (313) 224-6356

2. Send completed rabies report directly to the Washtenaw County Public Health Department.

([http://www.ewashtenaw.org/government/departments/public\\_health/phcontent/biteform06.pdf](http://www.ewashtenaw.org/government/departments/public_health/phcontent/biteform06.pdf))

3. **Wound management:**

**A. Stabilization / Evaluation** — Animal bites should be treated as contusions though they may also have significant lacerations or deep punctures. Initial treatment with ice and elevation will help reduce swelling. Direct pressure will control actively bleeding wounds. Consideration should be given to potential injury to deep or surrounding structures. A careful neurovascular examination of the injured area should be performed prior to the instillation of local anesthetics. A musculoskeletal exam should be performed with attention to integrity of deep and adjacent structures. Consider imaging if concern for bony injury or foreign body exists (e.g., plain radiograph or ultrasound).

Lacerations over the metacarpophalangeal joints should raise suspicion for possible human bite (i.e., fight bite) injuries.

**B. Clean wound** - Appropriate local anesthesia facilitates adequate wound cleaning. Wounds should be washed with soap and water as soon as possible, thorough wound cleaning may help reduce likelihood of rabies transmission.

**Lacerations** - To reduce the counts of bacteria present in the wound, the surface should be cleaned with povidone iodine and the depths irrigated with copious amounts of saline using pressure irrigation from a syringe. Wounds should be explored for foreign body, or deep structure injury, devitalized tissue should be debrided. Wounds over or near joints should be explored carefully through a range of motion to assess for damage to the underlying tendon sheath, fascia, joint capsule, etc.

**Puncture wounds** - Inspect wound for evidence of deep puncture, especially if the wound is located in the scalp or near a joint. Remove any foreign bodies or gross wound contaminants. Superficially irrigate the wound, avoiding high pressure irrigation into the wound. Avoid removal of deep tissue (eg, "coring")

**C. Wound closure** – Closure of a bite wound may increase the risk of infection depending on species inflicting the bite, location, type and age of wound and host factors. In general, wound closure is discouraged except in locations where cosmetic or functional impairment may result. (e.g., facial bite wounds, etc.)

4. **Tetanus booster** – if last Td more than 5 years ago. Tdap may substitute for Td if person has not previously received Tdap and is 10 years or older.

5. **Antimicrobial therapy** – preemptive antimicrobial therapy recommended for most animal bites

Animal	Usual organisms	Antimicrobial Therapy	Alternative Therapy
Cat	<i>Pastuerella multocida</i> , <i>Staphylococcus aureus</i> , oral flora	<b>Adults:</b> Amoxicillin/clavulanate 875/125mg po bid or 500/125 mg tid  <b>Children:</b> Amoxicillin/clavulanate 13 mg/kg/dose PO TID or 20 mg/kg/dose PO BID  Treat 5 days	<b>Adults:</b> Cefuroxime axetil 500 mg po bid Doxycycline 100 mg po bid Children:  <b>Children:</b> Cefuroxime axetil suspension: 10 mg/kg/dose PO BID (max 500 mg/day); tablets: 250-500 mg PO BID <b>OR</b> Doxycycline (for children ≥ 8 years or those with their permanent teeth): 2 mg/kg/dose PO BID (max 200 mg/day)  **Do not use cephalixin
Dog	<i>Pastuerella multocida</i> , <i>Capnocytophaga sp.</i> , <i>S.</i> <i>aureus</i> , <i>Bacteroides sp.</i> <i>Fusobacterium sp.</i> , oral flora	Same as above	<b>Adults:</b> Clindamycin 300 mg tid <b>plus</b> levofloxacin 250 mg daily  <b>Children:</b> Clindamycin 10 mg/kg/dose PO TID <b>plus</b> Trimethoprim/sulfamethoxazole 5 mg/kg/dose PO BID
Human	<i>Eikenella sp.</i> , <i>S. aureus</i> , <i>Streptococcal sp.</i> , oral flora	Same as above	<b>Adults:</b> Clindamycin 300 mg tid plus levofloxacin 250 mg daily or Trimethoprim/sulfamethoxazole 1 DS bid  <b>Children:</b> Clindamycin 10 mg/kg/dose PO TID <b>OR</b> Trimethoprim/sulfamethoxazole 5 mg/kg/dose PO BID
Others	Rat: <i>Spirillum sp.</i> , <i>Streptobacillus sp.</i> Pig: <i>Staphylococcus sp.</i> , oral flora, enteric gm negatives, <i>P. multocida</i>	Same as above	Consult Infectious Diseases

**6. Rabies prophylaxis:** Rabies is uncommon in domestic animals; well appearing domestic animals rarely carry rabies. Unprovoked bites or bites from ill appearing animals should raise concern for rabies. The most common wild reservoirs of rabies are raccoons, skunks, bats, foxes, and coyotes. Small rodents (such as squirrels, rats, mice, hamsters, guinea pigs, gerbils, and chipmunks, ) and lagomorphs (such as rabbits and hares) are almost never found to be infected with rabies. See most recent recommendations for rabies vaccination at [www.CDC.gov/rabies/](http://www.CDC.gov/rabies/).

Reviewed	11/92	11/96	6/98	8/01	6/02	11/04			
Revised			6/98				11/07	09/09	
Initials	JGH	JGH	JGH	JGH/JSD	JGH	ED SMT	JSD/JGH	JSD/JGH	