CLINICAL PATHWAY:

Animal Bite Skin and Soft Tissue Infection

THIS PATHWAY SERVES AS A GUIDE AND DOES NOT REPLACE CLINICAL JUDGMENT.

Inclusion Criteria: ≥ 2 months of age, animal bite SSTI (from cat, dog or human)

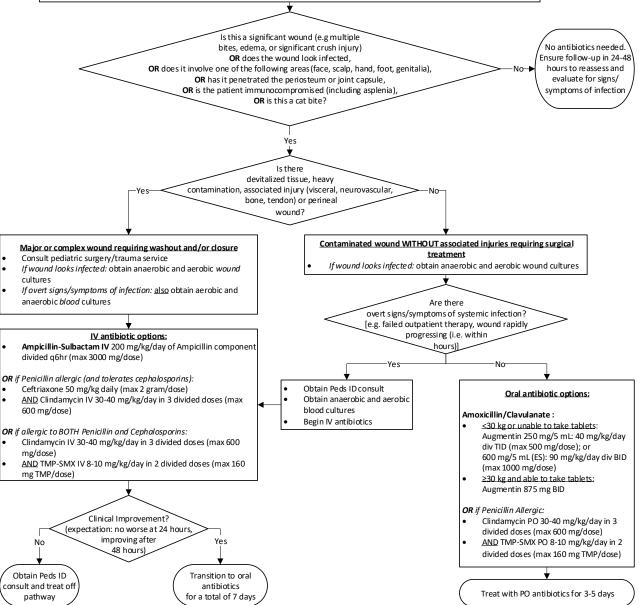
Exclusion Criteria: <2 mo old, animal bite NOT from cat, dog or human, non-animal bite SSTI (see Skin and Soft Tissue Infection Pathway)
consider ID consult if exclusions present

Initial Management:

- Apply direct pressure to any wounds that are actively bleeding
- Clean non-puncture wound with saline via high pressure syringe irrigation

Considerations:

- Consider Tetanus prophylaxis (see Appendix A Tetanus Prophylaxis)
- For dog and cat bites: consider Rabies prophylaxis (see Appendix B Rabies Prophylaxis)
- For cat bites: start antibiotic treatment regardless of severity (bites are deeper and may seem superficially well)
- For human bites: If unvaccinated for Hepatitis B, consider Hepatitis B IgG and vaccination (see Appendix C Hepatitis B Prophylaxis)
- For human bites: assess risk for HIV infection and see HIV Post Exposure Prophylaxis Pathway



Discharge Criteria: Clinically improved, afebrile for 24 hours (if presented with fever), tolerating PO medications, adequate follow-up in place

Discharge Instructions: Complete antibiotic course as above; follow surgeon's discharge instructions as applicable; if started on rabies vaccination: follow up with

Infectious Disease outpatient for subsequent vaccines by placing a referral to Infectious Disease via Epic; ensure plan in place for suture removal; ensure adequate follow

up in 24-48 hours to assess for signs/symptoms of infection

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TETANUS PROPHYLAXIS

Guide to Tetanus Prophylaxis in Routine Wound Management

History of Absorbed Tetanus Toxoid	Animal Bite Wounds (all of which are contaminated with saliva)	
(Doses)	DTaP, Tdap or Td¹	TIG²
Fewer than 3 or unknown	Yes	Yes
3 or more	No ³ if <5 years since last tetanus-containing vaccine dose	No
	Yes if ≥5 years since last tetanus-containing vaccine dose	No

Tdap indicates booster tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine; DTaP, diphtheria and tetanus toxoids and acellular pertussis vaccine; Td, adult-type diphtheria and tetanus toxoids vaccine; TID, Tetanus Immune Globulin (human).

American Academy of Pediatrics. Wound Care and Tetanus Prophylaxis. In: Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. *Red Book: 2018 Report of the Committee on Infectious Diseases.* American Academy of Pediatrics; 2018; 186

TETANUS IMMUNE GLOBULIN (TIG)²

- When TIG is required for wound prophylaxis, it is administered intramuscularly in a dose of 250 U (regardless of age or weight).
- If tetanus toxoid vaccine and TIG are administered concurrently, separate syringes and sites should be used.









¹ DTaP is used for children younger than 7 years. Tdap is preferred over Td for underimmunized children 7 years and older who have not received Tdap previously.

²Immune Globulin Intravenous should be used when TIG is not available.

³More frequent boosters are not needed and can accentuate adverse effects.

RABIES POST-EXPOSURE PROPHYLAXIS

Animal Type	Evaluation and Disposition of Animal	Postexposure Prophylaxis Recommendations
	Healthy and available for 10 days of observation	Prophylaxis only if animal develops signs of rabies ¹
Dogs, cats, and ferrets	Rabid or suspected of being rabid ²	Immediate immunization and RIG ³
	Unknown (escaped)	Consult public health officials for advice
Bats, skunks, raccoons, coyotes, foxes, mongooses, and most other carnivores; woodchucks	Regarded a rabid unless geographic area is known to be free of rabies or until animal proven negative by laboratory tests ²	Immediate immunization and RIG ³
Livestock, rodents, and lagomorphs (rabbits, hares, and pikas)	Consider individually	Consult public health officials; bites of squirrels, hamsters, guinea pigs, gerbils, chipmunks, rats, mice and other rodents, rabbits, hares, and pikas almost never require rabies postexposure prophylaxis

RIG indicates Rabies Immune Globulin.

³See below and text in reference: American Academy of Pediatrics. Rabies. In: Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. *Red Book: 2018 Report of the Committee on Infectious Diseases.* American Academy of Pediatrics; 2018; 673-680.

American Academy of Pediatrics. Rabies. In: Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. *Red Book: 2018 Report of the Committee on Infectious Diseases*. American Academy of Pediatrics; 2018; 673-680.

RABIES VACCINE ADMINISTRATION

- Two vaccines are available on the market: Rabavert (preferred) and Imovax (reserved for those with severe egg allergy).
- Administration site: typically deltoid, or for young patient may use outer aspect of thigh.
 - Do NOT administer in the gluteal muscle.
- Dose: 1 ml/dose
- Administration Schedule:
 - o Immunocompetent patients: give on days 0, 3, 7, and 14.
 - o Immunocompromised patients: give on days 0, 3, 7, 14 and 28.
 - o Patients who have had rabies vaccine in the past: give on days 0 and 3.

RABIES IMMUNOGLOBULIN ADMINISTRATION

- Dose: 20 IU/kg given in a single dose
- Administration:
 - o Give as soon as possible after exposure.
 - o If possible, give the full dose around/into the wound(s).
 - Any remaining volume (or if unable to give the dose around the wound) should be administered IM at a site distant from the *vaccine* administration site.



RETURN TO THE BEGINNING





¹During the 10-day observation period, at the first sign of rabies in the biting dog, cat, or ferret, prophylaxis of the exposed person with RIG (human) and vaccine should be initiated. The animal should be euthanized immediately and tested.

²The animal should be euthanized and tested as soon as possible. Holding for observation is not recommended. Immunization is discontinued if immunofluorescent test result for the animal is negative.

HEPATITIS B PROPHYLAXIS

Hepatitis B: Post-exposure Immunoprophylaxis

Immunoprophylaxis should be administered as soon as possible (preferably within 24 hours) or within 7 days of percutaneous exposure.

Exposure	Hepatitis B Prophylaxis Management	
	Unvaccinated Person	Previously Vaccinated Person
HBsAg-positive source	Hep B vaccine series ¹ and HBIG	Hep B vaccine dose ¹
HBsAg status unknown for source	Hep B vaccine series ¹	No management

Abbreviations: Hep B = hepatitis B; HBsAg = hepatitis B surface antigen; HBIG = hepatitis B immune globulin.

Schillie S, Vellozzi C, Reingold A, et al. Prevention of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices. MMWR Recomm Rep 2018; 67(No. RR-1):1-31. DOI: http://dx.doi.org/10.15585/mmwr.rr6701a1.







¹Hepatitis B lifetime vaccination maximum is 6 doses.