**HUMAN RABIES POST-EXPOSURE PROPHYLAXIS (PEP) PROTOCOL**

**Michigan law requires that animal bites be immediately reported to the local health department**

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**Did the person have contact with the saliva or brain tissue of a mammal via fresh open wound or mucous membrane, or was the person exposed to a bat?**

- **NO** → **DO NOT ADMINISTER PEP**
- **YES** → **Was the exposure to a wild animal, such as a bat, fox, raccoon, or skunk?**
  - **NO** → **Was the animal a rodent, such as a squirrel, hamster, mouse, rabbit, or rat?**
    - **NO** → **Was the animal a dog, cat, or ferret?**
      - **NO** → **Did consultation with the local or state health department indicate an animal at-risk for rabies?**
        - **NO** → **DO NOT ADMINISTER PEP**
        - **YES** → **Was the animal captured - or can it be located - for 10-day observation?**
          - **NO** → **DO NOT ADMINISTER PEP**
          - **YES** → **Was the animal brain available for rabies testing at the state laboratory?**
            - **NO** → **DO NOT ADMINISTER PEP**
            - **YES** → **Did the animal exhibit abnormal behavior or die within 10-day observation period?**
              - **NO** → **DO NOT ADMINISTER PEP**
              - **YES** → **Was the direct fluorescent antibody test positive?**
                - **NO** → **DO NOT ADMINISTER PEP**
                - **YES** → **ADMINISTER PEP**

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**PEP MAY BE CONSIDERED**

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**DO NOT ADMINISTER PEP**

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**ADMINISTER PEP**

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Rabies PEP is a medical urgency, not an emergency. The decision to initiate rabies PEP can normally wait 48-72 hours to determine whether an animal is available for testing or observation, and for test results to become available.

**SEE IMPORTANT INFORMATION ON REVERSE SIDE**
1. Rabies risk assessment requires balancing a number of criteria: the species of animal and the endemicity of rabies for that species for Michigan, the observed health and behavior of the animal, and the circumstances of the bite. This algorithm only addresses rabies post-exposure prophylaxis. Other treatment such as wound care, antibiotics, and tetanus immunization may be indicated.

2. In addition to obvious bites or mucous membrane exposures, the CDC suggests that PEP be considered in cases where there is a reasonable probability that contact with a bat may have occurred (i.e., a deeply sleeping person awakens to find a bat in the same room, an adult witnesses a bat in a room with a previously unattended child, mentally disabled person, or intoxicated individual) and rabies cannot be ruled out by testing of the bat. PEP would not be warranted for other household members. Consult your local health department for questions regarding uncommon incidents.

3. Barring unusual circumstances, rodents and rabbits are not likely to carry rabies, and bites from these species almost never require rabies PEP. In questionable or unusual circumstances involving rodent or rabbit bites, consult your local health department.

4. Unprovoked exposures are rare and typically require an animal to cross neutral space and attack. Provoked exposures may include:
   - attempting to feed an animal
   - having contact with an injured animal
   - entering an animal’s territory
   - petting or playing with an animal
   - handling an animal
   - attempting to break up a fight between animals
   - walking, running, or riding a bicycle past an animal

   The physician should attempt to get the patient to describe the scenario in order to establish the true nature or the circumstances surrounding the biting incident - DO NOT simply ask if the bite was provoked or unprovoked.

5. Rabies PEP is a medical urgency NOT an emergency. The severity and location of a wound (severe wounds or obvious wounds near the head and neck should be given highest priority), and the expected interval between the time of the bite and receipt of rabies test results should be considered when making a decision to begin PEP while awaiting test results. Potentially exposed persons can normally afford to wait 48-72 hours for 1) an animal to be located for quarantine or testing, or 2) animal rabies testing results. Testing is available at the MDCH laboratory 24/7 including weekends and holidays, and turnaround time for testing is normally 24-48 hours.

6. Unless the person previously received rabies immunoprophylaxis\(^1\) or is immunosuppressed\(^2\), PEP consists of four (4) doses of vaccine (1.0 ml each administered IM in the deltoid region) on days 0, 3, 7, and 14, and one (1) dose of human rabies immune globulin (HRIG) administered on day 0. HRIG (dosage 20 IU/kg) should be infiltrated into and around the bite wound as much as anatomically feasible, with the remainder administered IM at a site distant from vaccine administration. HRIG should not be administered in the same syringe or at the same site as vaccine.

\(^1\)Previously vaccinated patient: No HRIG, and only two (2) doses of vaccine on days 0 and 3.

\(^2\)Immunosuppressed patient: HRIG and a five (5) dose series of vaccine (days 0, 3, 7, 14, 28). Serum should be tested for rabies neutralizing antibody 1-2 weeks following completion of series.

Consult your local health department if deviations from the PEP schedule occur.

7. If the biting animal is captured and tests negative for rabies after PEP has begun, PEP may be discontinued.

References:


For more information, please visit:
www.michigan.gov/rabies or www.cdc.gov/rabies

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In general, healthcare providers should seek consultation regarding communicable disease prevention and control services through their local health department.

STATE OF MICHIGAN CONTACTS

Immunization Division
Ph: 517-335-8159
Fax: 517-335-8955

Communicable Disease Division
Ph: 517-335-8165
Fax: 517-335-8263

Bureau of Laboratories
Ph: 517-335-8063
Fax: 517-335-9361

STATE OF MICHIGAN COMMUNICABLE DISEASE AFTER HOURS CONTACT: (517) 335-9030

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