



Gavin Newsom  
Mayor

## HEALTH UPDATE

December 12, 2005

### RABIES PROPHYLAXIS FOR POTENTIAL BAT EXPOSURES

#### ACTIONS REQUESTED OF CLINICIANS:

1. Consider rabies post-exposure prophylaxis (PEP) in persons with possible exposure to a rabid bat or who have been exposed to a bat that is unavailable for rabies testing.
2. Review rabies PEP regimens for known or possible rabies exposure (see below). In particular:
  - Rabies PEP is indicated for certain bat exposures even in the absence of a bite wound
  - Infiltrate the full dose of human rabies immune globulin (RIG) into and around the wound. If no wound is present but rabies exposure cannot be ruled out, inject RIG intramuscularly at a site distant from vaccine administration.
  - Always administer rabies vaccine in the deltoid muscle.
3. Contact the **Communicable Disease Control Unit (CDCU) at (415) 554-2830** to report a known or possible exposure to a bat or other possibly rabid animals, and/or to discuss indications for PEP.

#### RABIES FOUND IN SAN FRANCISCO BATS

Five rabid bats have been identified in San Francisco since October 2005. In California, the main animal reservoirs for rabies are bats and skunks. In San Francisco, all animal rabies cases in the past 60 years have occurred in bats.

#### EXPOSURE RISK

Rabies is transmitted when saliva or neural tissue from a rabid animal is introduced into bite wounds, open cuts in skin, or mucous membranes. However, **bat bites and scratches may not be recognized** because most bat teeth are tiny (like 26-gauge needles). It may be impossible to rule out rabies exposure from a bat if the person was asleep, is an unattended child, or had an altered level of consciousness while in the same room with a bat, unless the bat tests negative for rabies by a public health laboratory. Thus **rabies PEP may be appropriate even if a bite, scratch, or mucous membrane exposure is not apparent**, so long as there is reasonable probability that such exposure might have occurred and the client cannot definitively determine that it did not.

Rabies is fatal once symptoms develop. Incubation typically lasts 3-8 weeks, but has ranged from 9 days to 7 years. Rabies PEP is effective in preventing disease when administered early and according to established recommendations.

#### INDICATIONS FOR POST-EXPOSURE PROPHYLAXIS

Decisions regarding the need for PEP are complex, and involve the type of animal, its behavior, the degree of contact, and the results of diagnostic testing. **Please call the Communicable Disease Control Unit at (415) 554-2830 to report a potential exposure, to discuss the need for PEP, and to learn where clients can obtain RIG and rabies vaccine.** Human rabies vaccine and RIG may be ordered from the manufacturer, but may also be obtained locally under urgent conditions. For more information visit [www.sfdph.org/CDCP](http://www.sfdph.org/CDCP) (see Infectious Diseases A-Z, Rabies).

## MANAGEMENT OF EXPOSURES

1. Clean and irrigate wound(s) thoroughly.
2. For previously unvaccinated persons: administer passive plus active immunization.
  - Administer RIG and the 1<sup>st</sup> dose of human rabies vaccine on the same day, and as soon as possible following exposure. (RIG must be given within 7 days of the first dose of vaccine.)
  - Passive Immunization: Infiltrate the full dose of RIG (Rabies Immune Globulin) 20 IU/kg body weight, into and around the wound(s), if anatomically feasible. Inject any remaining volume of RIG intramuscularly (IM) at an anatomical site distant from vaccine administration. If there is no wound, give RIG IM at a site distant from vaccine administration.
  - Active Immunization: Give 5 doses of rabies vaccine (1.0 mL IM in the deltoid) on days 0, 3, 7, 14, and 28. The deltoid is the only acceptable site of vaccination for adults and older children. For younger children, the anterolateral thigh muscle may be used. Vaccine should not be administered in the gluteus muscle because this results in lower levels of neutralizing antibody.
3. For previously vaccinated persons: administer active immunization only.  
Previously vaccinated persons are those who have completed either a pre-exposure (3 doses of rabies vaccine) or post-exposure vaccination series (5 doses of rabies vaccine).
  - Active Immunization: give 2 booster doses of rabies vaccine (1.0 mL IM in the **deltoid**) on day 0 and day 3. The deltoid area is the only acceptable site of vaccination for adults and older children (see #2 above).
4. Tetanus prophylaxis and measures to control bacterial infection, if indicated.
5. Post-treatment serologic testing is not routinely recommended because antibody response in persons receiving the currently recommended rabies PEP schedule has been satisfactory.

## ADDITIONAL RESOURCES

- S.F. Department of Public Health: [www.sfdph.org/cdcp](http://www.sfdph.org/cdcp)
- SFDPH Adult Immunization Clinic (vaccine administration only): [www.sfdph.org/aic](http://www.sfdph.org/aic)
- CDC rabies site: [www.cdc.gov/ncidod/dvrd/rabies](http://www.cdc.gov/ncidod/dvrd/rabies)
- CA Dept. Health Services rabies information (see Veterinary Public Health Section): [www.dhs.ca.gov/ps/dcdc/disb/disbindex.htm](http://www.dhs.ca.gov/ps/dcdc/disb/disbindex.htm)
- Rupprecht CE et al. Prophylaxis against rabies. NEJM 2004; 351:2626-35.