Occupational Health - Fact Sheet

CDC RABIES PREEXPOSURE PROPHYLAXIS RECOMMENDATIONS

The Centers for Disease Control (CDC) has published new guidelines and recommendations in the Morbidity and Mortality Weekly Report (MMWR), Vol. 57 / No. RR-3, for rabies pre-exposure prophylaxis. (May 2008). The new CDC recommendations are summarized below. For more information, please see Agent Fact Sheet entitled "Rabies."

Pre-exposure rabies prophylaxis is administered for several reasons. First, although pre-exposure vaccination does not eliminate the need for additional medical evaluation after a rabies exposure, it simplifies management by eliminating the need for rabies immune globulin and decreasing the number of doses of vaccine needed. This is particularly important for persons at high risk for being exposed to rabies in areas where modern immunizing products might not be available or where cruder, less safe biologics might be used, placing the exposed person at increased risk for adverse events. Second, pre-exposure prophylaxis might offer partial immunity to persons whose postexposure prophylaxis is delayed. Finally, pre-exposure prophylaxis might provide some protection to persons at risk for unrecognized exposures to rabies.

1. Risk Category: Continuous

    a. Nature of Risk: Virus present continuously, often in high concentrations. Specific exposures likely to go unrecognized. Bite, nonbite, or aerosol exposure.
    b. Typical Populations: Rabies research laboratory workers and rabies biologic production workers.
    c. Preexposure Recommendations: Primary vaccination course. Serologic testing every 6 months; booster vaccination if antibody titer is below acceptable level.*

2. Risk Category: Frequent

    a. Nature of Risk: Exposure usually episodic, with source recognized, but exposure might be unrecognized. Bite, nonbite or aerosol exposure.
    b. Typical Populations: Rabies diagnostic lab workers, veterinarians and staff, and animal control and wildlife workers in areas where rabies is enzootic. All persons who frequently handle bats.
    c. Preexposure Recommendations: Primary course. Serologic testing every 2 years; booster vaccination if antibody titer is below acceptable level.*

3. Risk Category: Infrequent (greater than population at large)

    a. Nature of Risk: Exposure nearly always episodic with source recognized. Bite or nonbite exposure.
    b. Typical Populations: Veterinarians and animal-control staff working with terrestrial animals in areas where rabies is uncommon to rare. Veterinary students. Travelers visiting areas where rabies is enzootic and immediate access to appropriate medical care including biologics is limited.

c. Preexposure Recommendations: Primary course. No serologic testing or booster vaccination.

4. Risk Category: Rare (population at large)

a. Nature of Risk: Exposure always episodic with source recognized. Bite or nonbite exposure.
b. Typical Populations: U.S. population at large, including persons in areas where rabies is epizootic.
c. Preexposure Recommendations: No vaccination necessary

* Minimum acceptable antibody level is complete virus neutralization at a 1:5 serum dilution by the rapid fluorescent focus inhibition test. A booster dose should be administered if the titer falls below this level.

Primary Vaccination Course: Three 1.0-mL injections of Human Diploid Cell Vaccine (HDCV) or Purified Chick Embryo Cell Vaccine (PCEC) vaccine should be administered intramuscularly (deltoid area). One injection per day on days 0, 7 and 21 or 28. Vaccine preparations for intradermal administration are no longer available in the United States.

Pre-Exposure Booster: One 1.0-mL injections of Human Diploid Cell Vaccine (HDCV) or Purified Chick Embryo Cell Vaccine (PCEC) vaccine should be administered intramuscularly (deltoid area).

https://www.cdc.gov/mmwr/PDF/rr/rr5703.pdf

https://www.cdc.gov/rabies/specific_groups/travelers/pre-exposure_vaccinations.html

TREATMENT: *Please consult your physician for treatment as recommendations may have changed.*