Rabies Work Group Update

Sharon Frey, MD, FACP, FIDSA
Chair, ACIP Rabies Work Group

ACIP Meeting
May 5, 2021
Work Group Members

ACIP Members
Sharon Frey (chair)
Lynn Bahta

Liaison Representatives
AAFP- James Stevermer
NASPHV- Katie Brown and Sally Slavinski
NACCHO- Matt Zahn
AAP- Elizabeth Bennett
APhA- Karl Hess
NACI- Julie Emili and Linlu Zhao
FDA- Paula Agger and Robin Levis
NIH- Eun-Chung Park

Invited Consultants
Subject Matter Expert- Deborah Briggs
Subject Matter Expert- Susan Moore
Travel medicine- David Shlim
Emergency Medicine – Greg Moran
APHL-Michael Pentella

CDC
Rabies Work Group lead – Agam Rao
Immunization Safety Office – Pedro Moro
Division of Global Migration and Quarantine- Kristina Angelo
February rabies presentations: Pre-exposure prophylaxis

- Addressed questions raised by the ACIP about PrEP costs
- Summarized clinical guidance presented at previous meetings
- Recapped policy questions, Evidence tables, and Evidence to Recommend frameworks

- ACIP committee requested a fourth risk group be added to the PrEP table so that persons with risk for rabies ≤ 3 years would be in their own risk category
- ACIP voted on 2 PrEP policy questions for persons ≥ 18 years of age and deferred the vote for persons < 18 years of age to a future ACIP meeting
<table>
<thead>
<tr>
<th>Risk category</th>
<th>Nature of Risk</th>
<th>Typical Population</th>
<th>Disease Biogeography</th>
<th>Primary Immunogenicity PPE</th>
<th>Long-term Immunogenicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1: Elevated risk for unrecognized and recognized exposures including unusual / high risk exposures (e.g., aerosol exposures and high concentration rabies virus exposures)</td>
<td>Risk of virus exposure is continuous. Exposure is often in high concentrations and may go unrecognized, and can be unusual (e.g., aerosolized virus).</td>
<td>Laboratory personnel working with live rabies virus in research, diagnostic, or vaccine production capacities (e.g., necropsy of suspect rabid animal or working with rabies virus cultures)</td>
<td>Laboratory</td>
<td>IM [0, 7 days]</td>
<td>Titer every 6 months (booster if titer &lt; 0.5 IU/mL)</td>
</tr>
<tr>
<td>#2: Elevated risk of both unrecognized and recognized exposures</td>
<td>Risk of virus exposure is episodic. Exposure typically recognized but could be unrecognized. Unusual exposures do not occur.</td>
<td>Persons who frequently handle bats or at frequent risk for coming into contact with bats because of entry into high density bat environments (e.g., bat biologist)</td>
<td>All geographic regions where bats are a reservoir for rabies</td>
<td>IM [0, 7 days]</td>
<td>Titer every 2 years (booster if titer &lt; 0.5 IU/mL)</td>
</tr>
<tr>
<td>#3: Elevated risk of recognized exposures that is sustained</td>
<td>Risk of virus exposure greater than for population at large. Exposure is a recognized one.</td>
<td>Persons who work with animals: • Animal care professionals (e.g., veterinarians, technicians, animal control officers) • Others who repeatedly handle terrestrial reservoir species (e.g., wildlife biologists, rehabilitators, and trappers) • Spelunkers • Veterinary students</td>
<td>All geographic regions where terrestrial and non-terrestrial mammals are reservoirs for rabies</td>
<td>IM [0, 7 days]</td>
<td>Titer once at 1-3 years (booster if titer &lt; 0.5 IU/mL) OR Booster no sooner than day 21 and no later than year 3.</td>
</tr>
<tr>
<td>#4: Elevated risk of recognized exposures that is not sustained (i.e., &lt; 3 years)</td>
<td>Risk of virus exposure greater than for population at large. Exposure is a recognized one and only present for up to 3 years after primary vaccination</td>
<td>Travelers who will be performing activities (e.g., occupational or recreational) that put them at increased risk for exposure to rabid dogs and may have difficulty getting access to safe PPE (e.g., in rural area). Children may receive PPE depending on the country to which they will travel (see CDC: Traveler’s Health destination page)</td>
<td>Geographic regions internationally with endemic rabies</td>
<td>IM [0, 7 days]</td>
<td>None</td>
</tr>
<tr>
<td>#5: Low risk of exposure / (i.e., general population)</td>
<td>Risk of virus exposure is uncommon. Bite or non-bite exposure</td>
<td>U.S. population at large</td>
<td>Nationwide</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

1For questions about the disease biogeography of the region where an exposure occurred, please contact your local or state health department
2Bats are reservoirs for rabies in all US states except Hawaii
3Terrestrial mammals are non-bat species (e.g., racoons, skunks, livestock)
WG activities since last ACIP meeting

- **PrEP**
  - Discussed questions raised by the ACIP about rabies PrEP and children
  - Discussed communication of any updates to the 2008 ACIP recommendations
    - How, when, and through which channels to communicate to stakeholders
    - How to ensure communications are clear and can be smoothly implemented by end-users

- **Post-exposure prophylaxis (PEP)**
  - Which additional topics should be discussed by the WG
WG’s goal for today

- **PrEP**
  - Present the data reviewed by the WG about PrEP and children
  - Present 2 policy questions voted on during the February meeting for adults; propose the questions for children in anticipation of a vote during June ACIP meeting

- **PEP**
  - Provide background information about PEP and a general approach to PEP
Anticipated timeline

- Finish discussion about PrEP and children
- Begin PEP presentations

May 2021

- Votes on PrEP and children
- Present WG interpretation of data about RIG, PEP schedules (GRADE and EtR if WG prefers change)
- Clinical guidance, e.g., for PrEP and PEP schedule deviations

June 2021

October 2021
Today’s presentations*

- Rabies pre-exposure prophylaxis and children
- Background: Post-exposure prophylaxis
- Next steps

*All presentations are provided by Dr. Agam Rao (CDC/NCEZID)
Thank you!

For more information, contact CDC
1-800-CDC-INFO (232-4636)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.