

ACIP Prevention of Human Rabies Work Group

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On behalf of the
ACIP Rabies Work Group

Advisory Committee on Immunization Practices

June 26, 2019

Work Group Purpose and Goals

- To provide a forum for discussion to update the 2008 and 2010 ACIP recommendations on human rabies prevention
- Members have been reviewing new and existing data and providing individual input on topics that may inform changes to recommendations
- Work group first met in October 2018 and has been meeting monthly

Need for Updated Recommendations

- Rabies is an acute and fatal encephalomyelitis but is preventable
- > 200,000 persons in US exposed to rabies suspect animals / year
- >30,000 persons receive post-exposure prophylaxis (PEP) / year
- Rabies PEP is safe and efficacious but costs are high
- 2008: ACIP recommendations comprehensively updated; 2010: PEP schedule updated
- In interim, new data available and World Health Organization (WHO) updated recommendations

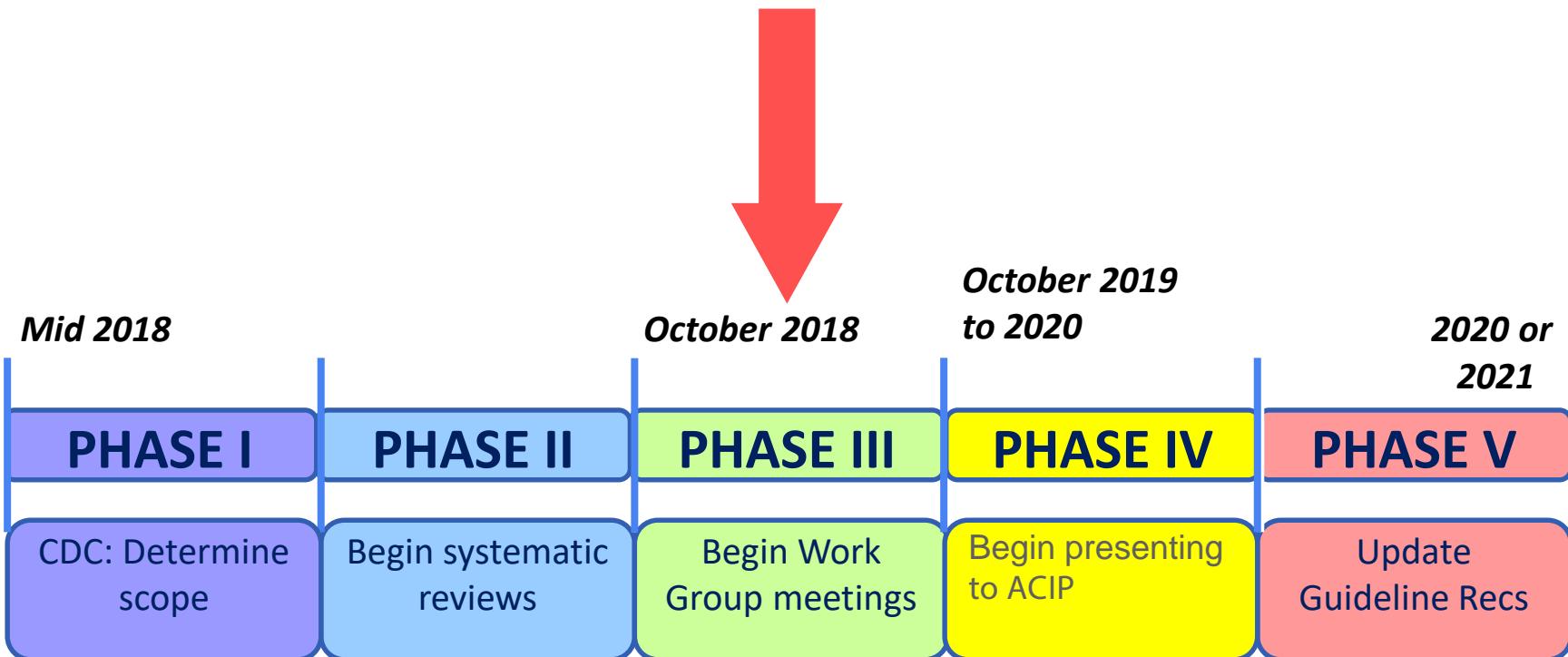
Terms of Reference

- Determine the epidemiology and burden of rabies exposures and PEP administration in the United States
- Evaluate and revise previous recommendations as needed for rabies vaccination schedules, deviations in schedules, and monitoring of immunity by taking into consideration efficacy, immunogenicity, safety, cost-effectiveness, route and location of PrEP and PEP; this evaluation will consider evidence generated to inform the rabies recommendations of other global organizations and new data to identify areas where additional evidence may be necessary to inform discussions
- Review rabies exposure risk and risk assessment guidelines for the general population and by specific occupational and recreational groups (e.g., veterinarians, laboratorians, and travelers)

Terms of Reference continued

- Evaluate ACIP serological and monitoring recommendations including whether recommendations should differ depending on the degree of rabies risk for a person and whether adequate antibody titers are needed to confirm immunization
- Consider whether any recommendations should differ for healthy adults compared to other populations based on available data in immunocompromised persons, children, and pregnant women
- Clarify any confusing recommendations in the latest ACIP rabies recommendations and update the recommendations with information about the 2 rabies immune globulin products approved by the US FDA during 2018
- Identify areas in need of further research for informing future vaccine and immune globulin recommendations

Tentative Timeline (Subject to Change)



Work Group Members

ACIP Members

Sharon Frey (chair)

José R. Romero

Liaison Representatives

AAP- Elizabeth Bennett

AAFP- James Stevermer

NACCHO- Matt Zahn

APhA- Karl Hess

NACI- Julie Emili and Linlu Zhao

FDA- Paula Agger and Robin Levis

NASPHV- Katie Brown and Sally Slavinski

APHL-Michael Pentella

Additional Subject Matter Experts

Susan Moore

Deborah Briggs

CDC

*Rabies Work Group leads – Jesse Blanton
and Agam Rao*

*Division of Global Migration and
Quarantine- Kristina Angelo
Immunization Safety Office – Pedro Moro*

Completed to date

- Identified work group members, evaluated conflicts of interest
- Provided background presentation about rabies to work group members of different backgrounds
- Completed 7 meetings dedicated to PrEP
- Listserv email exchanges with work group members in between meetings to ensure continued discussion
- Table wording and recommendations were updated according to input received from the work group and shared for continued input
- Advice for sections that require more clarification solicited from work group members and other stakeholders (e.g., NASPHV)
- Repeated discussions with manufacturers of both rabies vaccines and all rabies immune globulin products in US to ensure all unpublished data is considered

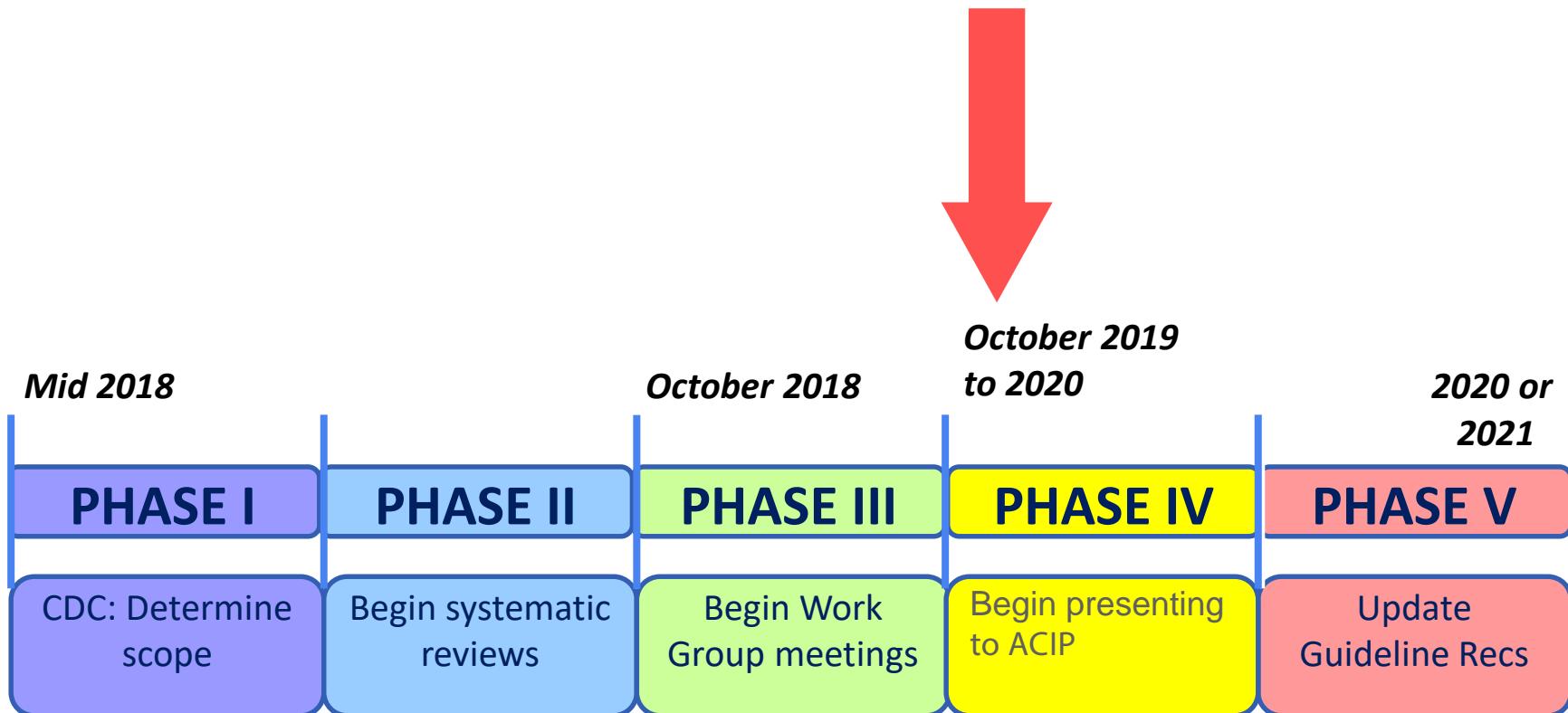
Pre-exposure Prophylaxis discussions

- Healthy Adults: Schedules and Primary Response
- Healthy Adults: Duration of Immunity and Effectiveness
- Healthy adults: Serological Monitoring (frequencies and cut-offs) and Risk Group Recommendations
- Special Populations: Determine if recommendations decided above (i.e., schedules, duration of immunity, frequency of serologic monitoring) should be different from those of healthy adults
- Rabies vaccine safety and administration considerations
- Miscellaneous topics including co-administration of rabies vaccine with other vaccines and anti-malarials

Next Steps

- Continue monthly work group calls focused on PEP
- Continue to review systemic review of data (including unpublished and new), manufacturer input, and information that might inform decisions
- PEP topics will include:
 - Schedule
 - PrEP and PEP schedule deviations
 - Rabies Immune Globulin administration around wound vs. around wound + IM
 - Recommendations for special populations including immunocompromised
 - Internationally administered PEP
 - PEP for mass bat exposures

Tentative Timeline (Subject to Change)



Acknowledgements

CDC Technical Work Group and Subject Matter Experts

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Jesse Bonwitt

Erin Whitehouse

Thank you!

For more information, contact CDC
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TTY: 1-888-232-6348 www.cdc.gov

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.