

ACIP Dengue Vaccines Workgroup

Robert Atmar, MD

ACIP Member and Workgroup Chair

ACIP Meeting October 28, 2020

ACIP Dengue Vaccines Workgroup

ACIP Members

Robert Atmar (Chair)
Beth Bell
Veronica McNally
Kathy Poehling

CDC Lead

Steve Waterman
Gabriela Paz-Bailey (Co-
Lead)

Ex Officio Members

Kaitlyn Morabito (NIH)
Doran Fink (FDA)
Kirk Prutzman (FDA)
Srihari Seshadri (DOD)

Liaison Representatives

Elizabeth Barnett (AAP)
Rob Schechter (AIM)

Consultants

Edwin Asturias
Alan Barrett
Wilbur Chen
Anna Durbin
Ines Esquilin
Tony Marfin
Hal Margolis
Kristen Pierce
Anita Shet

CDC Contributors

Laura Adams
Mimi Eckert
Rachel Eidex
Susan Hills
Terri Hyde
Mike McNeil
Jorge Munoz
Cindy Weinbaum

Dengue Vaccines Workgroup Discussions

March 2020-October 2020

- **Review of February ACIP Dengue Vaccines session and discussion of possible phased implementation of CYD-TDV in Puerto Rico**
- **Sanofi Pasteur CYD-TDV cost effectiveness study**
- **Acceptability of a CYD-TDV vaccination program for 9-16 year old children to Puerto Rico pediatricians and school officials, key informant interviews**
- **Overview of two economic analyses by CDC ACIP health economist**
- **Preliminary results of CDC Phase 1 evaluation of dengue IgG tests**
- **Review of initial drafts of EtR for CYD-TDV**

ACIP Dengue Vaccines Workgroup Update Phased Implementation in Puerto Rico Discussions

- **Workgroup had considerable discussions about a phased approach to work out logistics and feasibility of pre-vaccination screening in Puerto Rico**
- **Discussions included observations that keeping an ACIP recommendation simple is desirable**
 - Suggestion that MMWR background document comment that CYD-TDV vaccine poses novel challenges making phased implementation potentially helpful
 - Ultimately the territorial health department will have the responsibility on how to roll out the vaccine

ACIP Dengue Vaccines Workgroup Update Acceptability Discussions

- **CYD-TDV appears acceptable to Puerto Rico stakeholders, but further education is needed for physicians and parents on the benefits and risks**
- **No information on vaccine acceptability and feasibility in other U.S. territories at this time, but efforts are under way (may not be available by February 2021)**

ACIP Dengue Vaccines

Cost effectiveness – Notre Dame Study

- **Base scenario: Test Sp-95%, Se-80%; 50% dengue seroprevalence; vaccinating 9 yr-olds over 10 yrs (80% screened)**
- **3,415 hospitalizations averted; ratio of 18.6 hospitalizations averted for each additional hospitalization (due to vaccinating a falsely seropositive child)**
- **Notre Dame study found ICERs for hospitalizations averted of \$16,000 (\$9,400 - \$29,000) and QALYs of \$122,000 (\$74,000 - \$182,000)**
 - **Estimated range based the uncertainty of model parameters fit to the vaccine trial data**

ACIP Dengue Vaccines Workgroup Update Pre-vaccination Laboratory Screening Test

- **EtR judgments are dependent on the performance of pre-vaccination screening test for prior dengue infection**
- **Second phase CDC evaluation of dengue IgG assays showing good Sp and Se on early convalescent serum samples is pending (expect results before end of the year)**
- **With the assumption that one or more commercially available dengue IgG assays meet international target product profile for acceptable Sp and Se (95%, 85%), the expected judgment on benefits/harms will be “favors intervention”**

ACIP Dengue Vaccines Workgroup Update

Anticipated Discussions

- **Further Workgroup discussions to finalize the EtR incorporating the results of the dengue IgG lab test evaluation will likely focus on:**
 - Health Equity
 - Feasibility in Puerto Rico and other U.S. Territories including the cost and availability of laboratory testing
 - Shared decision making versus an unqualified recommendation
 - New data in August 2020 Science paper suggesting that prior Zika infection enhances risk of severe dengue

ACIP Dengue Vaccines Workgroup

- **Anticipated ACIP Schedule 2021**
 - **February 2021**
 - **CDC assessment of laboratory tests for pre-vaccination screening**
 - **Evidence to Recommendations Framework with draft CYD-TDV recommendations**
 - **June 2021**
 - **ACIP vote CYD-TDV recommendations**

- **Are there specific data ACIP would like presented?**
- **Are there other considerations the Work Group should address?**

ACKNOWLEDGEMENTS

Laura Adams

Doug Campos-Outcalt

Andrew Leidner

Freddy Medina

Gabriela Paz-Bailey

Coral Rosado

Steve Waterman

ACIP Dengue Vaccines Work Group Members

Thank you! Questions?

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.

National Center for Emerging and Zoonotic Infectious Diseases

Division Name in this space

