ACIP Dengue Vaccines Workgroup Considerations and Next Steps

Steve Waterman, MD, MPH
Dengue Branch

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POLICY QUESTION FOR ETR

Should 3-doses of CYD-TDV be administered routinely to persons 9-16 years of age with laboratory-confirmed previous dengue infection and living in endemic areas to prevent virologically confirmed dengue, hospitalizations and severe dengue?
Dengue Vaccine Workgroup Considerations Summary

- GRADE analysis – evidence of high quality for CYD-TDV protection and safety among seropositive children 9-16 years
- Major challenge: identifying a sensitive and specific and cost effective IgG screening test
- Puerto Rico immunization program presentation and discussion
CYD-TDV Cost Effectiveness Comments/Discussion

- Presentation on validated model vaccinating 9 year-olds, dengue antibody prevalences of 50%/30%, vaccine coverage 80%
  - Vaccination beneficial from a public health and individual perspective as long as sero-screening moderately Sp and Se
  - 6% of overall hospitalizations prevented
    - Vaccinating a wider age range increases proportion of hospitalizations prevented
  - Increasing test Se increases public health impact but higher Sp more important to maximize cost effectiveness
    - 2 hospitalizations in misclassified seronegatives for every 1000 vaccinated persons with Sp at 95% (prevalence 50%)
CYD-TDV Cost Effectiveness Comments/Discussion

- Vaccine unit cost ICER
- Incremental cost to avert a hospitalized case $1,500 (50% prevalence)
- Changes in the cost of hospitalizations and serologic screening can affect the ICER significantly
  - Increased hospitalization costs decrease ICER
  - Increased laboratory tests costs increase ICER
- How will screening laboratory test costs be covered?
- Workgroup will continue to discuss cost effectiveness
Other ACIP Dengue Vaccines Workgroup Tasks

- Workgroup gathering information regarding safety details raised at June ACIP meeting
• Are there specific data ACIP would like presented?
• Are there other considerations the Work Group should address?
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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.