Summary of Work Group Discussions: Revised Dosing Schedule for MenB-FHbp (Trumenba®)

Jessica MacNeil, MPH

Advisory Committee on Immunization Practices

June 22, 2016

National Center for Immunization & Respiratory Diseases

Division of Bacterial Diseases

Revised Dosing Schedule for MenB-FHbp

- **Changes to the dosage and administration section for MenB-FHbp approved by FDA on April 14, 2016**
- **Original language:**

  Three doses according to a 0, 2, and 6 month schedule

- **Updated language:**

  Three-dose schedule: Administer a dose at 0, 1-2, and 6 months

  Two-dose schedule: Administer a dose at 0 and 6 months

  The choice and dosing schedule may depend on the risk of exposure and the patient's susceptibility to meningococcal serogroup B disease

Package insert available at: http://www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM421139.pdf

Current ACIP Recommendations for Serogroup B Meningococcal (MenB) Vaccines

- Certain persons aged ≥10 years who are at increased risk for meningococcal disease should receive MenB vaccine (Category A)[1]
- A MenB vaccine series may be administered to adolescents and young adults aged 16–23 years to provide short-term protection against most strains of serogroup B meningococcal disease (Category B)[2]

[1]Folaranmi T., et al. Use of Serogroup B Meningococcal Vaccines in Persons Aged ≥10 Years at Increased Risk for Serogroup B Meningococcal Disease: Recommendations of the Advisory Committee on Immunization Practices, 2015. MMWR; June 12, 2015; Vol. 64, No. 22, p 608-612.

[2]MacNeil JR, et al. Use of Serogroup B Meningococcal Vaccines in Adolescents and Young Adults: Recommendations of the Advisory Committee on Immunization Practices, 2014. MMWR; October 23, 2015, Vol. 64, No. 41, p 1171-1176.

Guidance for Use

- **MenB vaccine should either be administered as a 3-dose series of MenB-FHbp (Trumenba®) or a 2-dose series of MenB-4C (Bexsero®)[1,2]**

[1]Folaranmi T., et al. Use of Serogroup B Meningococcal Vaccines in Persons Aged ≥10 Years at Increased Risk for Serogroup B Meningococcal Disease: Recommendations of the Advisory Committee on Immunization Practices, 2015. MMWR; June 12, 2015; Vol. 64, No. 22, p 608-612.

[2]MacNeil JR, et al. Use of Serogroup B Meningococcal Vaccines in Adolescents and Young Adults: Recommendations of the Advisory Committee on Immunization Practices, 2014. MMWR; October 23, 2015, Vol. 64, No. 41, p 1171-1176.

Outline

- **Work Group interpretation of data presented**
  - Immunogenicity
  - Safety
- **Proposed policy options**

Dosing Schedules Evaluated for MenB-FHbp

- **3-dose schedules:**
  - 0, 2, 6 months
  - 0, 1, 6 months
- **2-dose schedules:**
  - 0, 6 months
  - 0, 4 months
  - 0, 2 months
  - 0, 1 months

Work Group Interpretation: Immunogenicity

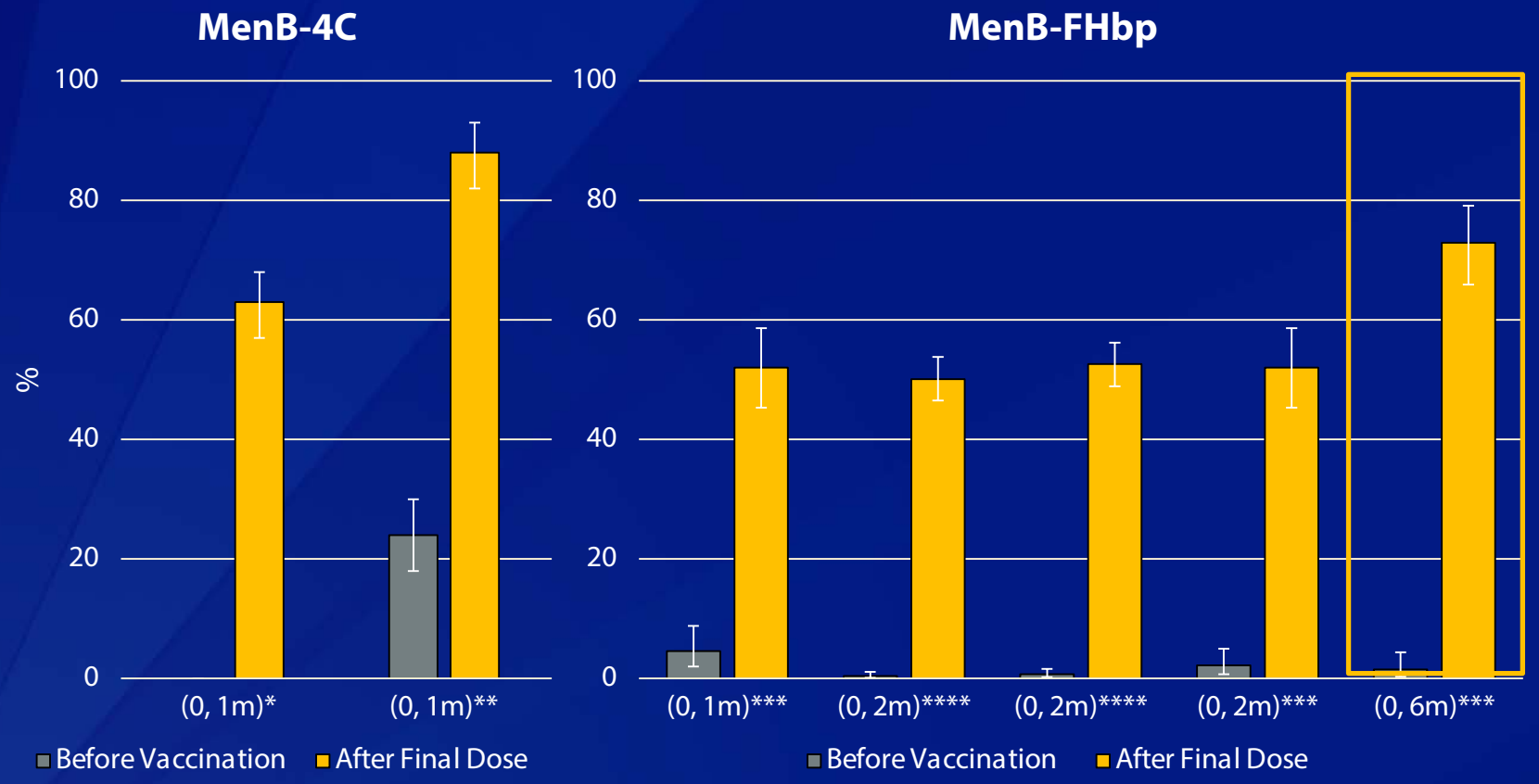
- Among the 2-dose schedules evaluated the 0, 6 month schedule had the highest % responders and GMTs and is most similar to a 3-dose schedule
- However, the proportion of subjects with ≥4-fold rise in hSBA titers is lower with a 2-dose schedule at (0, 6 months) compared to either 3-dose schedule

*Composite response (hSBA titer ≥1:8** for all 4 strains) 1 month post-last dose; **hSBA ≥1:16 for A22 expressing strain

Work Group Interpretation: Immunogenicity (continued)

- **Similarly, the GMTs are lower with a 2-dose schedule (0, 6 months) compared to either 3-dose schedule**
  - For some strains the 95% confidence intervals do not overlap
  - Lower GMTs suggest not as strong of an immune response

Composite hSBA Response‡ One Month Following Two Doses of MenB-4C or MenB-FHbp



‡Composite hSBA response means hSBA≥LLOQ for all indicator strains

*Canadian and Australian Adolescents 11 through 17 years; **UK University Students 18 through 24 years

***European Adolescents 11 through 18 years; ****US Adolescents 11 through 17 years

Data source: Package inserts for MenB-4C and MenB-FHbp

Antibody Persistence

- Preliminary antibody persistence data following the 2-dose (0, 6 month) schedule has been viewed by the Work Group
- Anticipate more complete antibody persistence data may be able to be shared with ACIP in October 2016

Work Group Interpretation: Safety

- **MenB vaccines are more reactogenic than other vaccines given during adolescence**
  - Most common AE reported is pain at injection site
- **The safety and tolerability profiles are similar for the 2-dose and 3-dose schedules of MenB-FHbp**

Policy Options

1. **For persons at increased risk and for use during outbreaks**
   - Preference for 3-dose schedule of MenB-FHbp
2. **For healthy adolescents:**
   - Option for 2-dose schedule of MenB-FHbp (0, 6 months) or 3-dose schedule

   OR
   - Preference for 3-dose schedule of MenB-FHbp
     - Provide guidance that if someone receives their second dose of MenB-FHbp ≥6 months after the first dose no additional doses are needed

Work Group Discussion

- **ACIP guidance for which schedule to use is needed**
- **Preference for 3-dose schedule for persons at increased risk (including outbreaks)**
  - Provides early protection and maximize immune response
- **Also, preference for 3-dose schedule for healthy adolescents**
  - For people who want to maximize protection 3 doses is preferred
  - Both the 2- and 3-dose schedules take 6 months to complete
  - Provide guidance that if someone receives their second dose of MenB-FHbp ≥6 months after the first dose no additional doses are needed

Additional Data for ACIP to Consider in October 2016

- Antibody persistence following 2-dose (0, 6 month) schedule
- Independent evaluation of hSBA data for MenB-FHbp and MenB-4C against several U.S. outbreak strains
- Impact of MenB-FHbp on carriage among U.S. college students

Discussion

- Is ACIP in agreement with the Work Group proposal to express a preference for the 3-dose schedule of MenB-FHbp in persons at increased risk (including outbreaks) and healthy adolescents?
- Are there additional data (beyond data proposed for October) that ACIP would like to see?