**Rationale for a Pentavalent Meningococcal Serogroup ABCWY Vaccine: A Review of Epidemiologic and Clinical Data**

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**INTRODUCTION**

- **Objective:** To assess potential utility of a pentavalent meningococcal serogroups A, B, C, W, Y (ABCWY) vaccine to address the large burden of disease caused by IMD and the need for broad protection against multiple serogroups.

- **Methods:** A review of meningococcal disease epidemiology and the need for broad protection against multiple serogroups, with a focus on the potential utility of an ABCWY pentavalent vaccine.

- **Results:** ABCWY vaccine has the potential to provide broad protection against multiple serogroups, reducing the burden of IMD and improving public health outcomes.

**METHODS**

- **Objective:** To assess the potential utility of a pentavalent meningococcal vaccine to address the large burden of disease caused by invasive meningococcal disease (IMD) and the need for broad protection against multiple serogroups.

- **Methods:** A systematic review of the literature, including clinical trial data, and the development of a pentavalent meningococcal vaccine.

- **Results:** The pentavalent meningococcal vaccine has the potential to provide broad protection against multiple serogroups, reducing the burden of IMD and improving public health outcomes.

**RESULTS**

- **Objective:** To review the clinical trial data supporting the use of a pentavalent meningococcal vaccine.

- **Methods:** A review of clinical trial data for the pentavalent meningococcal vaccine, including efficacy and safety data.

- **Results:** The pentavalent meningococcal vaccine demonstrated high efficacy and safety in clinical trials, with a strong immune response and a high rate of seroprotection against multiple serogroups.

**CONCLUSIONS**

- **IMD epidemiology remains unpredictable with respect to predominant disease-causing serogroups and the occurrence of sporadic cases and outbreaks.**

- **Comprehensive protection against IMD requires vaccination against serogroups A, B, C, W, and Y, which collectively cause nearly all IMD.**

- **Clinical data indicate that MenACWY is safe, well tolerated, and highly immunogenic among adolescents and young adults.**

- **Results support the use of a 2-dose MenACWY primary series for both serogroup naive and experienced individuals in this age group.**

- **A single MenACWY dose may provide comparable protection to existing MenACWY vaccines.**

- **Recommend the flexibility to extend the interval between the MenACWY primary doses.**

- **Use of 2 primary doses may provide improved protection over several years compared with a single MenACWY dose.**

- **Amplified protection is boostable for all 5 serogroups.**

- **MenACWY could help address challenges in existing IMD epidemiology and existing vaccination schedules by providing adolescents and young adults with comprehensive, boostable protection using a single vaccine.