

# Strength and Clarity of Vaccine Recommendations Influence Providers' Practice

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In 2015, 2 meningococcal serogroup B (MenB) vaccines were licensed by the US Food and Drug Administration for persons  $\geq 10$  years through 25 years of age through an accelerated approval process.<sup>1</sup> The Advisory Committee on Immunizations Practices recommended MenB vaccines for adolescents and young adults not at increased risk for meningococcal B disease using a new recommendation designation, Category B, defined as a recommendation for individual clinical decision-making.<sup>2,3</sup> The Centers for Disease Control and Prevention and the American Academy of Pediatrics acknowledged issues that remained because of the accelerated approval.<sup>2,4</sup> Duration of immunity, effectiveness of a newly structured meningococcal vaccine (ie, outer membrane protein antigens rather than conjugated polysaccharide antigens), long-term adverse effects, and the proportion of meningococcal B strains that would be covered by the 2 vaccines had yet to be established.<sup>3,4</sup>

In this month's issue of *Pediatrics*,<sup>5</sup> results from a survey of pediatricians and family physicians were used to provide insight as to how providers might discuss and recommend MenB vaccines. The survey was used to query providers to assess factors influencing their plans to discuss and recommend MenB vaccines. Awareness of meningococcal B college outbreaks increased the likelihood of discussing and recommending the MenB vaccine. Factors that also enhanced providers' likelihood of recommending the

MenB vaccine were as follows: (1) the incidence of serogroup B meningococcal disease and (2) effectiveness and safety of the MenB vaccines. It is apparent why outbreak awareness would positively influence the decision to discuss and recommend MenB vaccines. However, the incidence of MenB disease has declined by more than 90% in the past 2 decades,<sup>6</sup> and the effectiveness and long-term safety of the MenB vaccines have not yet been established.<sup>2</sup> These factors should have actually diminished the likelihood for providing a strong recommendation for MenB vaccines. Providers were also more likely to discuss and recommend the MenB vaccines for their patients entering college. This occurred despite the fact that there were no data at the time of the survey to support an increased risk of meningococcal B disease in college students.<sup>3</sup> Knowledge of meningococcal B college outbreaks and evidence of increased meningococcal C and Y disease in college students<sup>7</sup> likely influenced their responses.

The Category B recommendation that called for individual decision-making was the factor most likely to reduce rather than increase the administration of this vaccine. However, time to discuss a Category B recommendation was stated as not being an impediment to discussing or recommending the MenB vaccines. This response might actually reflect how providers would want things to be if time during a routine visit was not limited. Given the time available during a routine

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visit, pediatricians must prioritize what needs to be discussed. When pediatricians are fortunate to have 16- to 18-year-old patients come to a routine visit, there are many important issues to discuss, such as sexual activity, tobacco, alcohol and illicit drug use, contraception, and mental health. Pediatricians have strongly advocated for routinely recommended vaccines, resulting in high immunization rates even in adolescents. But given the limited opportunities for providers to see a 16- to 18-year-old, and with all of the important issues to be discussed, it is suggested in the survey results that this new recommendation of “may be given” impacts providers’ fervor about how they would discuss and recommend the MenB vaccines. Responses varied considerably concerning willingness to discuss and recommend the MenB vaccines. Without specific and clear guidance as to how to quantify benefits, risks, and costs for their individual patients, it is easy to understand why providers would have disparate responses reflecting the challenge associated with a new vaccine and a new vaccine recommendation classification.

The proportion of adolescents who have received MenB vaccines at the time of the survey was markedly lower than might be expected by survey responses, and many of the responses were counter to available information. It is possible, and even likely, that the survey responses represent what the responders would want to do rather than what they were actually doing. This may be a limitation of all surveys. Additionally, low MenB immunization rates may reflect the difficulty of getting 16- to

18-year-old patients in for a routine visit.

Pediatricians appreciate recommendations that are evidence based, clear, and unequivocal. When this is the case, they have been responsible for achieving exceptional immunization rates, even in adolescents. Rates for routinely recommended vaccines in adolescents far exceed those achieved for the MenB vaccine and the initial permissive human papillomavirus recommendation for boys<sup>8</sup> (tetanus, diphtheria, and acellular pertussis vaccine: 88%; quadrivalent meningococcal conjugate vaccine [MCV4] first dose: 82%; and second dose: 39%).<sup>9</sup> Recommendations that require clinical decision-making need to provide clear guidance that informs providers so that they can determine what needs to be discussed with their patients and families and determine how strongly to recommend the vaccine. Without this guidance, providers will continue to be challenged with Category B or permissive recommendations as suggested in the survey.

#### ABBREVIATION

MenB: meningococcal serogroup B

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