Functional or Anatomical Asplenia Vaccine Guidelines

I. PURPOSE
To outline appropriate vaccines targeting encapsulated bacteria for functional or anatomical asplenic patients. Routine vaccines that may also be indicated but not addressed here but include influenza, Tdap, Zoster, HPV, MMR, Varicella.1,2,3

II. Background
Splenectomized patients should be vaccinated to decrease the risk of postsplenectomy sepsis due to organisms such as Streptococcus pneumoniae, Haemophilus influenzae type B, and Neisseria meningitidis. Guidelines are based on CDC recommendations.

III. Procedures/Guidelines1,2,3
The regimen consists of 4 vaccines initially, followed by repeat doses as specified:
1. Haemophilus b conjugate (Hib) vaccine (ACTHIB) IM once if they have not previously received Hib vaccine
2. Pneumococcal conjugate 13-valent (PCV13) vaccine (PREVNAR 13) IM once
   - 2nd dose: Pneumococcal polysaccharide 23-valent (PPSV23) vaccine (PNEUMOVAX 23) SQ/IM once given ≥ 8 weeks later, then 3rd dose as PPSV23 > 5 years later.4
   Note: the above is valid for those who have not received any pneumococcal vaccines previously, or those with unknown vaccination history. If already received ≥1 prior doses of PPSV23: give PCV13 at least 1 year after last PPSV23 dose.
3. Meningococcal conjugate (MenACWY-D) vaccine (MENACTRA) IM (repeat in ≥ 8 weeks, then every 5 years thereafter)
4. Meningococcal serogroup B (MenB) vaccine (BEXSERO) IM (repeat in ≥ 4 weeks)

Initiation of vaccine regimen:
1. Should be given 14 days before splenectomy, if possible. Doses given during the 2 weeks (14 days) before surgery can be counted as valid.
2. If the doses cannot be given prior to the splenectomy, they should be given as soon as the patient’s condition has stabilized after surgery. Limited data exists for waiting until 14 days post-op, and may lead to missed vaccine administration.5-7

<table>
<thead>
<tr>
<th>SHC Guidelines for Functional or Anatomical Asplenia (Adapted from CDC 2016)</th>
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<tbody>
<tr>
<td>Dose #1</td>
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<tr>
<td>Day 1</td>
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<tr>
<td>Haemophilus b conjugate (Hib) (ActHIB®)†</td>
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<tr>
<td>Meningococcal conjugate (MenACWY-D) (Menactra®)</td>
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<td>Meningococcal serogroup B (MenB) (Bexsero®)</td>
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<tr>
<td>Pneumococcal conjugate 13-valent (PCV13) (Prevnar 13®)‡</td>
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† Applies to patients that have not previously received Hib vaccine (e.g. as part of routine childhood series)
‡ Applies to those who have not received any pneumococcal vaccines previously, or those with unknown vaccination history
IV. References

5. Immunization Action Coalition Express, Issue 1194: July 15, 2015

V. Document Information

A. Original Author/Date: Lina Meng, PharmD, BCPS, Abraham Chang, PharmD, BCOP: 2/5/2016
B. Gatekeeper: Antimicrobial Stewardship Program, Department of Pharmacy
C. Review and Renewal Requirement
   This document will be reviewed every three years and as required by change of law or practice
D. Revision/Review History
   Stan Deresinski, MD, Aruna Subramanian, MD 2/18/2016, David Spain, MD, FACS 2/19/2016
E. Approvals

Appendix: How to order in EPIC

1. Type “splenectomy” or “asplenia”

2. All necessary vaccines will appear. Review before signing. Start dates will be auto-timed as specified in this guideline