Functional or Anatomical Asplenia Vaccine Guide

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/Guidelines\(^1,2,3,6,7,8\)

The regimen consists of 4 vaccines initially, followed by repeat doses as specified:

1. Haemophilus b conjugate (Hib) vaccine (ACTHIB\(^\text{®}\)) IM once if they have not previously received Hib vaccine
2. Pneumococcal conjugate 13-valent (PCV13) vaccine (PREVNAR 13\(^\text{®}\)) IM once
   - 2\(^{\text{nd}}\) dose: Pneumococcal polysaccharide 23-valent (PPSV23) vaccine (PNEUMOVAX 23\(^\text{®}\)) SQ/IM once given ≥ 8 weeks later, then 3\(^{\text{rd}}\) 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 vaccine (MenACWY-CRM, MENVEO\(^\text{®}\)) IM (repeat in ≥ 8 weeks, then every 5 years thereafter)
4. Meningococcal serogroup B vaccine (MenB, BEXSERO\(^\text{®}\)) 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.\(^5-7\)

| SHC Guidelines for Functional or Anatomical Asplenia (Adapted from CDC 2016) |
|-----------------------------|-----------------------------|-----------------------------|
| **Dose #1**                 | **Dose #2**                 |
| day 1                       | 4 weeks                    | 8 weeks                    |
| Haemophilus b conjugate [Hib (ActHIB\(^\text{®}\))]\(^\dagger\) | n/a                        | n/a                        |
| Meningococcal conjugate [MenACWY-CRM (Menveo\(^\text{®}\))]\(^\ddagger\) | n/a                        | Meningococcal conjugate (same product as Dose #1) |
| Meningococcal serogroup B [MenB (Bexsero\(^\text{®}\))] | Meningococcal serogroup B [MenB (Bexsero\(^\text{®}\))] | n/a                        |
| Pneumococcal conjugate 13-valent [PCV13 (Prevnar 13\(^\text{®}\))]\(^*\) | n/a                        | Pneumococcal polysaccharide 23-valent [PPSV23 (Pneumovax 23\(^\text{®}\))] |

\(^\dagger\) Applies to patients that have not previously received Hib vaccine (e.g. as part of routine childhood series)
\(^\ddagger\) Menveo preferred over Menactra if coadministered with PCV13
\(^*\) Applies to those who have no hx of pneumococcal vaccines or PCV13, or those with unknown vaccination history (see appendix B)
IV. References

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

V. Document Information

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Appendix A: 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.
Appendix B: Pneumococcal vaccination recommendations and timing of administration for adult patients with asplenia

Abbreviations: PCV13 = pneumococcal 13-valent conjugate vaccine, PPSV23 = pneumococcal 23-valent polysaccharide vaccine