
SPLENECTOMY VACCINATION GUIDELINE

Indications:

- All patients status post splenectomy

In-hospital vaccination protocol¹:

Administer vaccination on the day of discharge or day 14, whichever comes first

- Pneumococcal 20-valent conjugate (PCV20 – Prevnar 20) 0.5 mL IM
- Haemophilus influenza type b vaccine (Hib - Hiberix) 0.5 mL IM
- Meningococcal vaccine (Menveo) 0.5 mL IM
- Meningococcal serogroup B (Bexsero) 0.5 mL IM

Follow-up vaccinations needed¹:

2 month follow up after the initial vaccination

- Meningococcal vaccine 0.5 mL IM
- Meningococcal serogroup B 0.5 mL IM (> 1 month after first dose)

Long-term follow up

- Pneumococcal polysaccharide 0.5 mL IM 5 years after the first dose of this vaccine
- Meningococcal vaccine 0.5 mL IM recommended every 5 years
- Meningococcal serogroup B 0.5 mL IM recommended every 2-3 years
- No additional haemophilus vaccine is needed
- Seasonal influenza vaccine is indicated annually

Exceptions¹:

- Vaccinations should be administered at the designated time unless actively on vasopressors, steroids, or undergoing a major procedure likely to reduce the ability of the immune system to respond to the vaccine appropriately.
- Patients who have received PCV13 in the past year should wait at least 1 year to receive the PCV20 or complete the PPSV23 series (consider minimum interval (8 weeks) for adults with an immunocompromising condition, cochlear implant, or cerebrospinal fluid leak (CSF) leak)
- If 2 doses of the PPSV23 series have been given in the past year, PCV20 should be given 1 year after the last PPSV23.
- If 1 dose of PCV13 and PPSV23 have been given in the past, but patient has not completed recommended series, PCV20 should be given 1 year after the last PPSV23.

Rationale:

- Post-splenectomy patients are at risk of rapidly-progressing sepsis due to IgG-coated bacteria and encapsulated organisms. Although relatively rare, this rapidly-progressing sepsis is associated with a high mortality rate. The above recommended vaccines specifically target such causative organisms.
- Vaccinations should be administered at 14 days post injury or prior to discharge from the hospital, whichever comes first. This duration is chosen based on guidelines and in an attempt to achieve the highest initial vaccination compliance rate.
- Suggest implementation of “Medi-Alert” bracelet literature for post-splenectomy patients.

References:

1. CDC Recommended Adult Immunization Schedule - United States - 2023. Available at: <http://www.cdc.gov/vaccines/schedules/hcp/imz/adult-conditions.html>. Accessed April 2023.
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3. Shatz DV, Schinsky MF, Pais LB et al. Immune responses of splenectomized trauma patients to the 23-valent pneumococcal polysaccharide vaccine at 1 versus 7 versus 14 days after splenectomy. *J Trauma* 1998; 44:760-765.
4. Shatz DV, Romero-Steiner S, Elie CM et al. Antibody responses in postsplenectomy trauma patients receiving the 23-valent pneumococcal polysaccharide vaccine at 14 versus 28 days postoperatively. *J Trauma* 2002; 53:1037-1042.
5. Rubin LG, Shaffner W. Care of the asplenic patient. *New Engl J Med*. 2014;371(4): 349-56.
6. Stassen N, Bhullar I, Cheng J, et al. Selective nonoperative management of blunt splenic injury: An Eastern Association for the Surgery of Trauma practice management guideline. *J Trauma Acute Care Surg*. 2012;73:S294-S300.

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