
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 21-valent conjugate (PCV21 – Capvaxine) 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

- 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
- No additional pneumococcal 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 OR PCV23 in the past should wait ≥ 1 year to receive the PCV21.
- Patients who have received PCV13 AND ≥ 1 dose of PPSV23 in the past should wait ≥ 5 years from most recent vaccination to receive the PCV21.
- Patients who have received PCV20 or PCV21 in the past do not need a repeat pneumococcal vaccine.

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 - 2024. Available at: <https://www.cdc.gov/pneumococcal/downloads/Vaccine-Timing-Adults-JobAid.pdf>. Accessed November 2024.

2. Howdieshell TR, Heffernan D, DiPiro JT. Surgical infection society guidelines for vaccination after traumatic injury. *Surg Infect (Larchmt)* 2006; 7:275-303.
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.

Jill Streams, MD- Trauma PI Director
Bradley Dennis, MD- Trauma Medical Director
Jennifer Beavers, PharmD, BCPS

Revised: 11/2024