Appendix 2: Post-Splenectomy Prophylaxis in Adults

Note: These guidelines are intended for use in adult patients only. For immunisation schedule for children with splenectomy or hyposplenism seek expert advice and refer to National Immunisation Guidelines.

- Individuals with an absent or dysfunctional spleen are at increased of fulminant infection especially from encapsulated bacteria such as *Streptococcus pneumoniae, Neisseria meningitidis and Haemophilus influenzae.*
- Patients should be encouraged to wear an alert bracelet or equivalent and carry a card with information about their condition. Patients should be educated about the risks of animal exposure including bites and potential risks of tick and mosquito-borne diseases when travelling.
- It is essential to educate patients regarding the risk of infection, the importance of vaccines and antimicrobial prophylaxis, and prompt recognition and treatment of any infections that develop.

Vaccination

- For those requiring splenectomy, vaccination should be completed at least 2 weeks and preferably 4 weeks or more before surgery.
- In the case of emergency splenectomy, or if immunisation was not completed pre-operatively, vaccination can be commenced 2 weeks post operatively.
- Advise general practitioner in discharge letter of requirement for these vaccines.
- In immunocompromised patients, seek expert advice regarding timing of vaccination.

Additional vaccines for those with asplenia or hyposplenia		
Neisseria meningitidis	MenACWY	2 doses 2 months apart; booster every 5 years
	MenB	If unvaccinated, 2 doses 1 month apart
Streptococcus pneumoniae*	PCV13*	1 dose ≥ 2 months after previous dose. If unvaccinated, 2 doses 2 months apart
	PPV23*	1 - 3 doses 1st dose at least 2 months after PCV13 2nd dose 5 years later Final dose at >65 years
Haemophilus influenzae type b	Hib	1 dose ≥ 2 months after previous dose.
Influenza	Inactivated influenza	Annually

Adapted from *National Immunisation Guidelines. Chapter 3 immunisation of Immunocompromised*

* Please refer to *National Immunisation Guidelines Chapter 16 Pneumococcal Infection* . PCV13 should be given first, followed by PPV23 at least 2 months later.

Antimicrobial Prophylaxis

The increased risk of infection is life-long but is highest early after splenectomy. The risk is greatest in children up to the age of 16 years and in adults over 50 years.

Lifelong prophylactic antibiotics should be offered to patients considered at continued **high risk** of pneumococcal infection:

- age less than 16 years or greater than 50 years
- inadequate serological response to pneumococcal vaccination
- a history of previous invasive pneumococcal disease
- splenectomy for underlying haematological malignancy particularly in the context of on-going immunosuppression

Antibiotic prophylaxis is recommended for a minimum of **1 to 2 years in low risk patients** but these patients should be counselled regarding the risks and benefits of lifelong antibiotics and may choose to continue or discontinue prophylaxis.

Oral penicillin is the drug of choice

- Penicllin V (Calvepen ^{TM}) 666mg po q12h OR amoxicillin 250-500mg q12h po

- In patients with confirmed penicillin allergy, clarithromycin 250 mg bd po is an alternative option.

Consider interactions with other drugs and consult with hospital pharmacist if necessary.

Note: Patients developing symptoms and/or signs of infection, despite the above measures, must be given systemic antibiotics and admitted urgently to hospital.

References:

1. National Immunisation Advisory Committee. The Immunisation Guidelines for Ireland: Chapter 3 Immunisation of Immunocompromised Persons March 2022– accessed at www.immunisation.ie
2. National Immunisation Advisory Committee. The Immunisation Guidelines for Ireland: Chapter 16 Pneumococcal infection– accessed at www.immunisation.ie
3. Davies, John M., et al. "Review of guidelines for the prevention and treatment of infection in patients with an absent or dysfunctional spleen: Prepared on behalf of the British Committee for Standards in Haematology by a Working Party of the Haemato-Oncology Task Force." *British journal of haematology* 155.3 (2011): 308-317.