



# POST-SPLENECTOMY VACCINATION BY, MICHELLE

## Updates: Why 2 types of Pneumococcal Vaccine ?

Patients with an absent or dysfunctional spleen have a life-long increased risk of bacterial infection due to encapsulated organisms like *Streptococcus pneumoniae* ( pneumococcal disease) , *Neisseria meningitidis* ( meningococcal disease) and *Haemophilus Influenzae* ( Hib disease) as well as infection acquired from animal bites or overseas travel (e.g. malaria) .

Although rare, ( Incidence rate of 0.05% to 2% in splenectomized patients) overwhelming postsplenectomy sepsis (OPSS) is a significant concern. It may develop immediately **post-op** or as late as 65 years postsplenectomy. Mortality is significant and reported to be as high as 50%. OPSS incidence reduction is dependent upon : 1) Prophylactic education of the patient and physician as to its risk and prevention 2) Rapid recognition of the asplenic individual when infection is suspected .

Previous vaccination schedules from ACIP recommendations before 2014 only mentioned Pneumococcal Polysaccharide Vaccine ( **PPSV 23** ) , Meningococcal vaccine and *Haemophilus Influenzae* vaccine for post splenectomy patients. After September 2014, ACIP recommends routine series of BOTH **Pneumococcal Conjugate Vaccine (PCV 13)** and **PPSV23** on top of the existing **Meningococcal** and **Haemophilus Influenza** vaccine. Doctors in PPUKM have been calling up Drug Information to ask which vaccine to order for post splenectomy , when to administer etc.

Drug Description		PCV 13	PPSV 23	Status
PNEUMOCOCCAL CONJUGATE VACCINE, POLYVALENT 0.5ML (PREVENAR)	PREVENAR			
POLYVALENT PNEUMOCOCCAL VACCINE 0.5ML/DOSE (PNEUMOVAX 23)	PNEUMOVAX 23			

	<b>Conjugate vaccines (PCV 13)</b>	<b>Polysaccharide vaccine (PPSV 23)</b>
Formulation	polysaccharide ( sugar molecules) from outside of pneumococcal bacteria have been attached ( conjugated ) to a protein.	made from polysaccharide (sugar) molecules from the outside of pneumococcal bacteria
Mechanism	elicits a T-cell dependent immune response and is more immunogenic than PPSV 23	elicits T cell independent immune responses
Duration of protection	It induces long-term protection, immunologic memory and longer duration of protection, with a better immunologic response when used for priming	Poor inducer of immunologic memory and it is associated with immunological hyporesponsiveness to subsequent vaccinations .
Age group	All age groups, including young infants, respond well to this type of vaccine	Polysaccharide vaccines are not very effective in children under 2 years of age as the immune system is too immature to generate a strong protective response

## Pneumococcal Vaccine Timing for Adults

Make sure your patients are up to date with pneumococcal vaccination.

Two pneumococcal vaccines are recommended for adults:

- 13-valent pneumococcal conjugate vaccine (PCV13, Prevnar13®)
- 23-valent pneumococcal polysaccharide vaccine (PPSV23, Pneumovax®23)

PCV13 and PPSV23 should not be administered during the same office visit.

When both are indicated, PCV13 should be given before PPSV23 whenever possible.

If either vaccine is inadvertently given earlier than the recommended window, do not repeat the dose.

## POST SPLENECTOMY VACCINATION SCHEDULE

By , Muhammad Alif B Ali Mazlan

Must be **initiated** within  
14 days post surgery

**Pneumococcal Conjugate Vaccine, PCV 13 (Prevenar®, IM)** [Cost: RM200\* Status: NF]  
**Meningococcal Vaccine, (Menveo®, IM)** [Status: F]  
**Haemophilus Influenza Vaccine, (Hiberix®, IM)** [Cost: RM 40\* Status: NF for adults]

8 weeks

**Pneumococcal Polysaccharide Vaccine, PCV 23 (Pneumo23®, IM, SC)**  
 Free for elective or post-splenectomy

5 years

**Pneumococcal Polysaccharide Vaccine, PCV 23 (Pneumo23®, IM, SC)**  
 Free for elective or post-splenectomy

5 years



**Pneumococcal Polysaccharide Vaccine, PCV 23 (Pneumo23®, IM, SC) ( \*for > 65 years)**  
 Free for elective or post-splenectomy

\*estimated price in Farmasi NF, for patient to purchase.

Reference :

1. <http://www.surgicalcriticalcare.net/Guidelines2015>.
2. Recommended vaccination for asplenic or hyposplenic adult patients. Human Vaccination Immunotherapy. 2017 Feb
3. [http://www.immunize.org/askexperts/experts\\_pneumococcal\\_vaccines.asp](http://www.immunize.org/askexperts/experts_pneumococcal_vaccines.asp)
4. CDC Feb 2018

## NEW ITEMS AVAILABLE IN NF PHARMACY !! (03-9145-5398)

DRUG NAME	INDICATION/\$	Counseling Tips
<b>URTICOR DRY COUGH</b> (Glycerol, Honey, (Propolis and Calendula extract), Linum Usitatissimum oil, Eucalyptus essential oil ) 	Symptoms of dry cough for 8 years and above. RM37.00	Apply 3-4 sprays to form a thin layer over the throat surface. Start with every 20-30 minutes in the beginning of treatment during the first 2-3h, and 3-4 times per day thereafter. Do not inhale while spraying. Avoid eating or drinking in the first 15-30 minutes post spray. Daily dose supplies less than 2g of sugar per day. Keep in room temperature. Do not refrigerate. Shelf life : 30 days after open
<b>URTICOR NASAL</b> Glycerol, Extracts of Camellia, Vaccinium myrtillus, Vaccinium macrocarpon, and Sambucus nigra. 	Rhinosinusitis & Nasal Congestion for 12 years and above RM37.00	Apply 2- sprays in each nostril, 2-3 times per day or more if necessary A slight tingling may be felt during the first 10-15 minutes after spray. It may be followed with a significant nasal discharge ( can last till 4-6 hours) . Do not reapply the product during this period. Keep in room temperature. Do not refrigerate. Shelf life : 30 days after open.

<http://www.p pukm.ukm.my/farmasi/>

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PPUKM Formulary is now available in **Play Store (Drug Formulary DIY)** and **Apple Store (PPUKM Formulary)**.