

PPUKM PHARMACY BULLETIN

VOLUME 14, ISSUE 1

2013

A COMPARISON BETWEEN PREVENAR 13 & PNEUMO 23

Streptococcus Pneumoniae is the leading cause of death in children worldwide with estimated 1.2 million children under the age of five years die every year – more than AIDS, malaria and tuberculosis combined. In adults aged 18 -64 years with hematologic cancer, the rate of invasive pneumococcal disease in 2010 was 186 per 100,000; and for HIV patients, the rate was 173 per 100,000. (CDC 2012) However, the good news is it can be prevented by immunization, adequate nutrition and by addressing environmental factors.¹

Product ^{2, 3}	Prevenar 13								Pneumo 23											
	Vaccino									Pneui	umococcal Vaccines									
Vaccin	1e 4	9V	6B 1	14 18	19F	23F	1 5	7F 3	6A	19A	289	N 10A	11A	12F	15B	17F	20	22F	33F	
	Prevenar13 · · · · · · · · · · · · · · · · · · ·																			
PNEUMO																				
Indication	1) for active immunization against invasive disease caused by 13 serotypes of Streptococcus pneumoniae in 6 weeks to 71 months old children, in 50 years of age and older adults and in 19 years of age or older adults with immunocompromising conditions, functional or anatomic asplenia, CSF leaks, or cochlear implants 2) for active immunization for the prevention of otitis media caused by Streptococcus pneumoniae serotypes 4, 6B, 9V, 14, 18C, 19F, and 23F in 71 months old and in adults 50 years. ** Before 30 th December 2011, it was approved by FDA for the use in children 6 weeks to 71 months old children only.							Prevention of pneumococcal infections, particularly pneumonia, in high-risk subjects from age of 2 years and older Groups identified at increased risk (high risk): 1)Elderly people from 65 years of age 2) Immunocompetent patients with chronic illness (eg. CVD, pulmonary disease, DM, alcoholism, cirrhosis, cerebrospinal fluid leaks). 3) Immunocompromised patients: anatomic or functional asplenia (including patients to be splenectomized), sickle cell disease, Hodgkins disease, lymphoma, multiple myeloma, chronic renal failure, nephrotic syndrome and organ transplantation. 4) Asymptomatic or symptomatic HIV infected patients. 5) Special groups: persons living in a social or working environment with an identified increased risk of pneumococcal infection or its complications.												
Adminis- tration	Intramuscular (IM). The preferred sites are the anterolateral aspect of the thigh in infants or the deltoid muscle of the upper arm in older children and adults. The vaccine should NOT be injected in the GLUTEAL area.						Intramuscular (IM) [preferred] or subcutaneous (SC)													
Carrier	Pneumococcal capsular polysaccharides conjugated to CRM197 carrier protein and adsorbed on aluminum phosphate (0.125 mg aluminium)							PNEUMO 23" Nil												
Inter- changabil- ity	No studies showing it is interchangeable.																			
Immuno- genicity and duration of immunity	Immunogenicity: No studies on immunogenicity of Prevenar 13 has been conducted. However, base on studies in Prevenar 7 (7vPnC), it is likely to elicit higher and potentially more effective levels of antipneumococcal antibodies than is PPSV23 (23- valent pneumococcal polysaccharide vaccine) in adults (FOR CERTAIN SEROTYPES ONLY). ⁴ Duration of immunity: No data							Pre	vena	r	13	data								

Vaccination Schedules 1,2,3,5

Infants, toddlers and adults

Age at Dose	2 months	4 months	6 months	12-15 months	≥ 50 Years Old
Dose	Dose 1 - given as early as 6 weeks old.	Dose 2 -recommended dosing interval is 4 to 8 weeks from Dose 1.	Dose 3 - recommended dosing interval is 4 to 8 weeks from Dose 2.	Dose 4 - administered at approximately 12-15 months of age, and at least 2 months after Dose 3.	1 Dose

Immunocompromised patients

Adults 19 – 64 years old with immunocompromising conditions, functional or anatomic asplenia, CSF leak, or a cochlear implant

Previously unvaccinated with either Prevenar 13 or Pneumo 23®	Previously received PPSV23 (Pneumo 23®)					
1 dose of Prevenar 13 and then a dose of PPSV23 ≥ 8 weeks lat-	1 dose of Prevenar 13 (≥ 1 years after the last Pneumo 23					
er.	dose.					

Catch up dose

cutch up uosc											
Unvaccinated Cl	reviously Vaccinated With Prevenar® (Pneumococcal 7-valent Con- ugate Vaccine)										
Age at First Dose	7-11 months old	12-23 mon	nths 24 - 71 months old		One catch-up (suppleme Prevenar 13 should be adr an interval of at least 8 w	ministered with					
Total Number of 0.5mL Dos- es	3 doses - The first 2 doses at least 4 weeks apart; third dose after the one-year birthday, separated from the second dose by at least 2 months.	2 doses - T doses at leas months apar	least 2		final dose of Prevenar® (7vPnC or Pne mococcal 7-valent Conjugate Vaccir [not available in Malaysia anymore].						
Brand	Туре	Available ii	Cost								
Prevenar	Pneumococcal 7-valent conjugate vaccine (7vl	Not Available after launching of Prevenar 13			-						
Prevenar 13	Pneumococcal 13-valent conjugate vaccine (13	UKM Specialist Centre			RM 240.60						
Synflorix	Pneumococcal 10-valent conjugate vaccine (1	Kedai Farmasi			RM 166.00						
Pneumo 23	Pneumococcal 23-valent polysaccharide vaccii	Kedai Farm	RM 55								

References:

- 1. World Health Organisation. Pneumonia. http://www.who.int/mediacentre/factsheets/fs331/en/
- 2. Prevnar® 13 (Pneumococcal 13-valent Conjugate Vaccine) Product Monograph. www.pfizer.ca.

Pneumovax Pneumococcal 23-valent polysaccharide vaccine (PPSV23) Not Available

- 3. Sanofi-Aventis New Zealand Limited. PNEUMO 23 DATA SHEET.
- 4. Roux AR. Comparison of Pneumococcal Conjugate Polysaccharide and Free Polysaccharide Vaccines in Elderly Adults: Conjugate Vaccine Elicits Improved Antibacterial Immune Responses and Immunological Memory.
- $5.\ Advisory\ Committee\ on\ Immunization\ Practices\ (CDC).\ Latest\ Adult\ Pneumococcal\ Vaccine\ Recommendations\ [Internet].\ 2012$



WORLDWIDE SHORTAGE OF PLENDIL 2.5MG

Currently there is a worldwide shortage of Felodipine (Plendil 2.5mg & 5mg) by Astra Zeneca due to some problems with their manufacturing plant. Due to this, Plendil 2.5mg is currently **OUT OF STOCK** in Malaysia.



The stock is expected to be available again beginning of April 2013, once Astra Zeneca re-register the drug with National Pharmaceutical Control Bureau (NPCB). This shortage however does not affect Plendil 10mg. In the mean time, Pharmacy Department will supply the 5mg tablet to be cut into half for the 2.5mg dose until further notice. If patient experiences intolerance or inefficacy, suggest to change to alternative medication.

A publication of :

DRUG INFORMATION CENTRE

Pharmacy Department UKM Medical Centre

Izyan Diyana Binti Ibrahim

izyandi@ppukm.ukm.edu.my Ext 5415

Michelle Tan Hwee Pheng

hptan@ppukm.ukm.edu.my Ext 5401

http://pharmacy.hukm.ukm.my