Pneumococcal Immunization Decision Tool - High Risk Patient

Both Pneumococcal-C-13 (Prevnar™13) and Pneumococcal-P-23 (Pneumovax®23) vaccines may be recommended for some individuals. To determine what your patient needs, see the following steps:

Step 1) Determine if individual has received previous doses of pneumococcal vaccines.

Step 2) Determine if individual is eligible for Prevnar™13 based on high risk criteria (See Table 1 for eligibility). If YES, give Prevnar™13 (if no previous pneumococcal vaccines given).

Step 3) Determine if individual is eligible for Pneumovax®23. If eligible for Pneumovax®23, it should be given 8 weeks after Prevnar™13 (If Pneumovax®23 was given first; give Prevnar™13 one year later).

Step 4) If individual is eligible for Pneumovax®23, determine if they are eligible for a booster dose 5 years after the first dose (See Table 1 for eligibility)

Step 5) Is Individual ≥ 65 years of age? Determine if it has been 5 years since previous dose of Pneumovax®23*

* Regardless of any previous doses of pneumococcal vaccines, one dose of Pneumovax®23 is recommended for all individuals ≥ 65 years of age.

Table 1: High Risk Pneumococcal Vaccine Eligibility Criteria

High Risk Condition	Prevnar™13				Pneumovax®23	
						≥ 2 years
	2 – 6 months	2 – 17 years	18 – 49 years	≥ 50 years	≥ 2 years – 64 years	Booster Eligibility one dose 5 years after previous dose
Neurological Disorders:						
Chronic cerebral spinal fluid (CSF) leak	Y				Y	
Chronic neurologic conditions that may impair clearance of oral secretions					Y	
Asplenia:						
Asplenia (functional or anatomic)	Y			Y	Y	Y
Sickle cell disease or other hemoglobinopathies	Y			Y	Y	Y
Chronic Diseases:						
Asthma (children 2 to 17 years of age)		N			N	
Asthma (adults ≥ 18 years of age)					N	
Cochlear implants	Y				Y	
Chronic cardiac or pulmonary disease	Y				Y	
Diabetes mellitus	Y				Y	
Chronic kidney disease	Y				Y	Y
Chronic liver disease	Y				Y	Y
Immunocompromised persons:						
Congenital immunodeficiency			N	Y	Y	Y
Hematopoietic stem cell transplant (recipient)			N†	Y†	Y	Y
HIV infection	Y		N	Y	Y	Y
Immunosuppressive therapy	Y		N	Y	Y	Y
Malignant neoplasms including leukemia and lymphoma	Y		N	Y	Y	Y
Solid organ or islet transplant (candidate or recipient)	Y		N	Y	Y	Y
Other:						
Alcoholism, smoker, homeless, and/or illicit drug user					N	

Y = Recommended AND Publicly Funded
N = Recommended and NOT Publicly Funded
† See Publicly Funded Schedule for Ontario for hematopoietic stem cell transplant (HSCT) dosage information

Table 2: Pneumococcal Vaccines

	Prevnar™13	Pneumovax®23
Antigen Y	Pneu-C-13	Pneu-P-23
Vaccine Type	Conjugate	Polysaccharide
What is it?	Bacterial capsule conjugated (chemically joined or linked) to a carrier protein (a protein that is easily recognized by the immune system)	Bacterial capsule
Immunogenicity	Highly immunogenic in young children	Less immunogenic, particularly in children < 2 years of age
Efficacy	46% efficacy against first episode of vaccine-type (VT) community-acquired pneumonia (CAP) 45% efficacy against first episode of non-bacteremic CAP 75% efficacy against first episode of VT Invasive Pneumococcal Disease (IPD) in immunocompetent individuals 65 years and older	50 - 80 % efficacy against Invasive Pneumococcal Disease (IPD) in the elderly and high risk groups
Indications	**Routine Use:** Children < 5 years of age **High Risk:** Adults ≥ 50 ⠀⠀⠀⠀⠀⠀⠀⠀⠀4th dose for children 2 – 6 months of age **Recommended but not publicly funded:** Healthy Individuals ≥ 65 Individuals 2 – 17 years of age AND with asthma Individuals 18 – 49 years with immunocompromising conditions	**Routine Use:** Adults ≥ 65 years of age **High Risk:** Individuals ≥ 2 years of age **Recommended but not publicly funded:** 1) Persons with alcoholism 2) Persons who smoke 3) Persons who are homeless 4) Individuals who use illicit drugs 5) Individuals ≥ 2 years of age with asthma
Booster Dose	NONE	See booster eligibility above (Table 1)

Region of Peel working with you