# **Recommended Vaccines for Patients** 50 Years of Age and Older

In general, adult Canadians are underimmunized for routine vaccine-preventable diseases. To streamline current recommendations by the National Advisory Committee on Immunization (NACI) for Canadians 50 years of age and older, the following table is provided as a tool for everyday use by health professionals.

For more information, visit the *Canadian Immunization Guide* at https://www.canada.ca/en/public-health/services/canadian-immunization-guide.html

VACCINE	RECOMMENDATION	COMMENTS
1. Tetanus	• 1 booster dose of Td every 10 years	
2. Pertussis	• 1 lifetime dose of Tdap as an adult	• can be given at any interval after Td when indicated
3. Influenza	<ul> <li>1 dose yearly</li> <li>healthy adults up to 59 years of age, any of the following vaccines can be used: QIV, TIV or LAIV unless contraindicated</li> <li>adults 60 to 64 years of age, QIV or TIV are recom- mended with or without chronic health conditions</li> <li>adults 65 years of age and older, any of the follow- ing vaccines can be used: TIV, QIV, adjuvanted TIV, or high-dose TIV</li> <li>NACI recommends high-dose TIV should be offered over standard-dose TIV</li> </ul>	<ul> <li>all adults</li> <li>focus on high-risk individuals</li> <li>those at risk of spreading disease</li> <li>essential service providers</li> </ul>
4. Pneumococcal	<ul> <li>Conjugate (PCV13)</li> <li>for additional protection against Community Acquired Pneumonia (CAP) and Invasive Pneumococcal Disease (IPD), NACI recommends PCV13 can be considered as follows: <ol> <li>immunocompetent adults 65 years of age and older with no risk factors and not previously immunized should receive 1 dose of PCV13 first, followed by PPV23 at least 8 weeks later</li> <li>immunocompetent adults 65 years of age and older with no risk factors and previously immunized with PPV23 should receive 1 dose of PCV13 first, followed by PPV23 should receive 1 dose of PCV13 at least one year after any previous dose of PPV23</li> <li>adults with HIV, immunosuppressive conditions, splenectomy or on immunosuppressive therapies should receive 1 dose of PCV13 followed by 1 dose of PPV23 at least 5 years later</li> <li>3 doses for adults with hematopoietic stem cell transplant starting 3-9 months after transplant, administered at least 4 weeks apart, followed by a booster dose of PPV23 as early as 1 year later</li> </ol> </li> </ul>	• PCV13 should be administered at least 1 year after any previous dose of PPV23
	<ul> <li>Polysaccharide (PPV23)</li> <li>1 dose at age 65 and older, regardless of risk factors or previous pneumococcal vaccination</li> <li>1 dose for immunocompetent adults (at any age) with medical comorbidities making them higher risk for IPD such as chronic heart disease, diabetes, chronic kidney disease, chronic liver disease, including hepatic cirrhosis and chronic lung disease, including asthma requiring medical care in the last 12 months</li> <li>1 dose for immunocompetent adults (at any age) who are residents of long-term care facilities, smokers, alcoholism, homeless</li> </ul>	<ul> <li>PPV23 should be administered at least 5 years after any previous vaccination with PPV23</li> <li>high-risk individuals requiring a booster dose of PPV23 should receive the dose at least 5 years after the most recent dose of PPV23</li> <li>revaccination with one booster of PPV23 only for adults (at any age) at highest risk of IPD, i.e. immunosuppressed, asplenia, sickle cell, chronic liver disease, HIV</li> </ul>

VACCINE	RECOMMENDATION	COMMENTS
5. Herpes Zoster	Recombinant zoster vaccine (RZV) • 2 doses, 2 to 6 months apart	<ul> <li>a 0,12 months schedule may be considered for improved adherence to the 2nd dose</li> <li>RZV can be given at least 1 year following vaccination with LZV or an episode of herpes zoster</li> <li>RZV (not LZV) may be considered for immunocompromised adults</li> <li>booster doses not recommended at this time</li> </ul>
	Live attenuated zoster vaccine (LZV) • 1 dose	<ul> <li>LZV may be considered for immunocompetent adults if RZV is contraindicated, unavailable or inaccessible</li> <li>LZV is contraindicated for adults with primary or acquired immunocompromised states, recently used or using immune- suppressive medications (see other side for what are considered immunosuppressive therapies)</li> <li>booster doses not recommended at this time</li> </ul>
6. Hepatitis B	• 3 doses, generally 0, 1, 6 months	<ul> <li>may be administered with hepatitis A vaccine in patients requiring both</li> <li>for travelers and families with international adoptions</li> <li>adults at increased risk of exposure, including chronic liver/kidney disease, haemophiliacs, HIV-infected, and lifestyle risks (history of sexually transmitted infections, using illicit drugs and engaging in high-risk sexual practices)</li> <li>no previous immunity</li> <li>anyone wishing to decrease risk of HB infection</li> </ul>
7. Hepatitis A	<ul> <li>2 doses, generally 0, 6 to 36 months apart if given alone</li> <li>3 doses, generally 0, 1, 6 months if administered with hepatitis B</li> </ul>	<ul> <li>mortality from disease increases with age</li> <li>for travelers and families with in- ternational adoptions</li> <li>adults at increased risk of infec- tion, including chronic liver dis- ease, haemophilia A or B receiv- ing plasma-derived replacement clotting factors, and lifestyle risks (using illicit drugs and men who have sex with men)</li> <li>anyone wishing to decrease risk of HA infection</li> </ul>

### **NOTES/DEFINITIONS**

#### **1. Live Vaccine Considerations**

- a) If you are administering multiple live vaccines, they can be administered at the same time or 4 weeks apart. These include varicella, herpes zoster, MMR, yellow fever and oral typhoid. Live attenuated influenza vaccine (LAIV) can be given at the same time or any time before or after other live vaccines.
- b) Live vaccines should NOT be given to pregnant women, individuals with primary or acquired immunocompromised states or individuals undergoing immunosuppressive therapies.
- c) In situations where planned treatment medication will cause immunosuppression, administer live virus vaccine at least 4 weeks prior to onset of treatment.

#### 2. What are considered immunosuppressive therapies?

- For more information, consult the *Canadian Immunization Guide:* https://www.canada.ca/en/public-health/ services/publications/healthy-living/canadian-immunization-guide-part-3-vaccination-specific-populations. html?page=8
- a) Long-term high-dose steroid treatment (prednisone 20 mg/day for  $\ge$ 14 days)
- b) Cancer chemotherapy
- c) Radiation therapy
- d) Cytotoxic drugs
- e) Calcineurin inhibitors
- f) Biological response modifiers

#### 3. What about lower-dose steroids?

- a) Corticosteroid therapy is NOT a contraindication to immunization with live virus vaccines if therapy is short term (<14 days) or low-to-moderate dose (prednisone < 20mg/day).
- b) Topical, nasal, inhaled, joint injections or maintenance physiologic replacements are NOT contraindications for immunization with live virus vaccines.

## 4. What drugs are NOT considered immunosuppressive therapies for administering varicella and live herpes zoster (LZV) vaccines?

- a) Methotrexate  $\leq$  0.4mg/kg/week
- b) Azathioprine  $\leq 3mg/kg/day$
- c) 6-mercaptopurine ≤ 1.5mg/kg/day

Prior to administering any live vaccines, consultation with the treating physician is recommended. A careful risk benefit assessment should be done if other live attenuated vaccines are to be considered in patients on low-dose immunosuppression.

#### 5. Co-administration

- a) There are no contraindications to co-administration of any of these vaccines in terms of safety and/or efficacy unless otherwise stated.
- b) Specifically, it is safe to administer HB, PCV13 OR PPV23, and influenza at the same visit, choosing different sites on the patient for injection. Please note the recommendations for timing considerations between PCV13 and PPV23. For more information, consult the *Canadian Immunization Guide*, Part 4 – Active Vaccines: Pneumococcal Vaccine: https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-16-pneumococcal-vaccine.html#a23

#### 6. Conjugate vs. Polysaccharide Vaccine

a) Conjugate vaccines offer some advantages over polysaccharide vaccines. Notably, antibody responses are more robust after conjugate vaccines; conjugate vaccines induce immune memory and therefore lead to longer duration of protection. Unlike polysaccharide vaccines, conjugate vaccines reduce nasopharyngeal colonization, an important benefit in contributing to herd immunity.



