



# Immunization Recommendations for Health Care Workers Acute Care Settings

## Overview

Immunizations play a large role in reducing the risk of disease. Health care workers (HCWs) in hospital settings, such as nurses, doctors, students in health care disciplines, laboratory workers, and other health care personnel, are at risk of exposure to vaccine preventable diseases because of their contact with clients or material from clients with infections, both diagnosed and undiagnosed. Health care workers who acquire a vaccine preventable disease can not only suffer morbidity and mortality as a result of infection, but serve as vectors for transmitting disease to other staff and patients.

The immunization status of each hospital HCW should be assessed at the time of initiation of work in hospital and their immunization status should be recorded and kept on file. HCWs who decide not to be vaccinated should have this information recorded in their health file in case of an

exposure to a vaccine preventable disease. Immunization policies at individual health care settings will vary, and decisions about which vaccine preventable diseases should be included depend on the size of the workplace, the exposure risks for the HCW, and the nature of employment.

The Ontario Hospital Association (OHA) and the Ontario Medical Association (OMA) have collectively developed surveillance protocols for certain communicable diseases that incorporate recommendations for HCW immunization. They were developed in compliance with Regulation 965, Section 4, under the *Public Hospitals Act*. This regulation requires each hospital to have by-laws that establish and provide for the operation of a health surveillance program, including a communicable disease surveillance program, in respect to all persons carrying on activities in the hospital.

**Based on these protocols and other key immunization guidance documents, the following immunizations or tests are recommended for HCWs working in acute care settings (hospitals):**

Disease	Recommended Vaccine or Test
<b>Hepatitis A</b>	The National Advisory Committee on Immunization (NACI) does not recommend routine immunization of HCWs. <sup>1</sup>
<b>Hepatitis B</b>	<p>For all susceptible HCWs who may be exposed to blood, blood products or body fluids of others, or who may be at increased risk of sharps injuries or bites</p> <p>3 doses of hepatitis B (HB) vaccine given at 0, 1 and 6 months.<sup>1</sup></p> <p>Note: Some HCWs may have received a 2 x 1.0 mL dose series (given 4-6 months apart) of HB vaccine as an adolescent. This is considered a complete series.</p> <p>Post immunization serologic testing for anti-HBs should be conducted 1-6 months after the third dose to determine immunity.<sup>3</sup></p> <p>If HCW has completed HB immunization more than 6 months ago, testing for anti-HBs should still be done.<sup>3</sup></p> <p>If anti-HBs is &gt;10mIU/mL and documented as such at any time, repeat serology or re-immunization is not required in the present or future.</p> <p>If anti-HBs is &lt;10 mIU/mL administration of additional doses with testing for response after each dose should be undertaken. Those who fail to respond to three additional doses of vaccine are unlikely to benefit from further immunization.<sup>3</sup></p> <p>This vaccine is not publicly funded for adults.</p>
<b>Influenza</b>	Documentation of influenza vaccine during the current influenza season. <sup>1,2,4</sup>
<b>Measles</b>	<p>Documentation of 2 doses of live measles virus vaccine on or after the 1st birthday</p> <p>OR</p> <p>Laboratory evidence of immunity to measles<sup>2</sup></p> <p>Note: The previously accepted assumption of immunity in HCWs born before 1970 is no longer valid, due to recent cases of measles in Ontario in persons born before 1970. While this is an acceptable assumption for the general public, it is not sufficient for HCWs.</p>

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Disease	Recommended Vaccine or Test
<b>Meningococcal disease</b>	Meningococcal vaccine is not routinely recommended for most health care workers. <sup>2</sup> It is recommended that laboratory personnel who are routinely exposed to preparations or cultures of <i>Neisseria meningitidis</i> receive quadrivalent meningococcal A, C, Y, W-135 conjugate vaccine. This vaccine is not currently publicly funded for adults. <sup>1,2,3</sup>
<b>Mumps</b>	Documentation of 2 doses of mumps vaccine (given as combined MMR vaccine) on or after the first birthday OR Laboratory evidence of immunity to mumps OR Documentation of laboratory confirmed mumps <sup>2</sup>
<b>Pertussis</b>	A single dose of Tdap should be offered to all HCWs who have not previously received an adolescent or adult dose of Tdap. <sup>1,2,3</sup> This is now publicly funded. <sup>4</sup> There is no routine antibody testing available to determine immune status to pertussis <sup>2</sup> Previous immunization against pertussis or a history of natural pertussis infection does not provide lifelong immunity <sup>2</sup>
<b>Polio</b>	Documentation of a primary series of minimum 3 doses at an appropriate interval <sup>1</sup> Adult boosters are not routinely recommended for those who have completed the primary series except in certain situations such as travel to an area with endemic disease. <sup>1,3</sup>
<b>Rubella</b>	Documentation of 1 dose of rubella vaccine on or after the first birthday <sup>1,2,3</sup> OR Laboratory evidence of immunity to rubella <sup>2</sup>
<b>Tetanus, diphtheria</b>	Documentation of a primary series of minimum 3 doses of a combined Tetanus diphtheria (Td) vaccine <sup>1</sup> Booster dose of Td every ten years <sup>1</sup>
<b>Tuberculosis</b>	HCWs whose tuberculin status is unknown and those previously identified as tuberculin negative require a baseline two-step Mantoux skin test (TST) unless they meet one of the following criteria, in which case a single step test may be given <sup>2</sup> : Documented results of a prior two-step test Documentation of a negative TST within the last 12 months OR 2 or more documented negative TST at any time but the most recent was >12 months ago, A history of BCG vaccine is not a contraindication to TB testing. HCWs who have had previous BCG vaccine may still be at risk of infection. <sup>2</sup>
<b>Varicella/Zoster</b>	Any person who has a definite history of chickenpox (Varicella) or shingles (zoster) can be assumed to be immune. <sup>2</sup> For staff who have not had chickenpox or are not certain whether or not they have had chickenpox, an option is to perform serologic testing to determine the need for immunization. Up to 80% of people will be immune despite a negative history. <sup>2</sup> If there is no history of disease or serologic proof of immunity, the HCW should be immunized with 2 doses of varicella vaccine, 6 weeks apart. <sup>4</sup> This vaccine is not publicly funded for adults.

## References

1. Infection Control Guidelines. (March 2002). Prevention and Control of Occupational Infections in Health Care.
2. Communicable Diseases Surveillance Protocols. Ontario Hospital Association/Ontario Medical Association.  
[www.oha.com/SERVICES/HEALTHSAFETY/Pages/CommunicableDiseasesSurveillanceProtocols.aspx](http://www.oha.com/SERVICES/HEALTHSAFETY/Pages/CommunicableDiseasesSurveillanceProtocols.aspx)
3. Canadian Immunization Guide. (2006). 7<sup>th</sup> Edition. Public Health Agency of Canada. [www.naci.gc.ca](http://www.naci.gc.ca)
4. Publicly Funded Immunization Schedules for Ontario. (August 2011)

## Questions

If you would like to learn more about immunizations or need a yellow immunization card, please call *Your Health Connection* at 705-721-7520 or 1-877-721-7520, Monday to Friday 8:30 a.m. to 4:30 p.m. or visit our website.