

## Immunization Recommended for Health Care Workers Chart

Disease	Vaccine(s)	Acronym	Indication	Recommended Doses
Tetanus Diphtheria Pertussis	Adacel® Boostrix®	dTap	All HCW	<p>If <b>no documented history</b> of primary series:</p> <ul style="list-style-type: none"> <li>Complete a primary series of 3 doses [day 0, 4 to 8 weeks (28 to 56 days) after first dose, 6 to 12 months after second dose].</li> </ul> <p>If <b>documentation</b> of primary series:</p> <ul style="list-style-type: none"> <li>Reinforcing dose of tetanus/diphtheria/pertussis vaccine every 10 years.</li> </ul> <p>If <b>no documented history</b> of a dose of acellular pertussis vaccine as an adult:</p> <ul style="list-style-type: none"> <li>1 dose of dTap regardless of the interval since the last dose of tetanus containing vaccine.</li> </ul>
Measles	MMR®II <sup>1</sup> Priorix® <sup>1</sup>	MMR <sup>1</sup>	HCW, regardless of year of birth without documentation of 2 valid doses of measles-containing vaccine or without documented laboratory confirmed measles disease or serological evidence of measles immunity (measles IgG positive) <sup>2</sup> .	<ul style="list-style-type: none"> <li>2 doses of measles-containing vaccine after 12 months of age. <ul style="list-style-type: none"> <li>Follow recommended minimum intervals for the specific vaccine.</li> </ul> </li> </ul>
Mumps	MMR®II <sup>1</sup> Priorix® <sup>1</sup>	MMR <sup>1</sup>	HCW regardless of year of birth without documentation of 2 valid doses of mumps-containing vaccine or without documented laboratory confirmed mumps disease (Mumps IgG serology is not an acceptable indicator of immunity).	<ul style="list-style-type: none"> <li>2 doses of mumps-containing vaccine after 12 months of age. <ul style="list-style-type: none"> <li>Follow recommended minimum intervals for the specific vaccine.</li> </ul> </li> </ul>
Rubella	MMR®II <sup>1</sup> Priorix® <sup>1</sup>	MMR <sup>1</sup>	<p>Legislated under the Alberta Public Health Act, Communicable Diseases Regulation:</p> <ul style="list-style-type: none"> <li>HCW without documentation of at least one dose of rubella-containing vaccine or serological evidence of rubella immunity (rubella IgG positive) who may have face to face contact with patients in health care facilities<sup>2</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>1 dose of rubella-containing vaccine after 12 months of age.</li> </ul>

<sup>1</sup> MMR – provided as combined measles, mumps rubella vaccine

<sup>2</sup> In general, serological testing to determine immunity to measles, mumps or rubella is not necessary or recommended and should not routinely be done for those who lack documentation of previous immunization

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Hepatitis B	Engerix®-B Recombivax HB®	HBV	<p>Eligibility for hepatitis B vaccine for HCW should be based on an assessment of the HCW reasonably anticipated risk of:</p> <ul style="list-style-type: none"> <li>Exposure to blood/bloody body fluids or sharps in the course of their work</li> </ul> <p><b>and</b></p> <ul style="list-style-type: none"> <li>Transmission of hepatitis B infection to individuals when performing procedures that expose the individual to blood/bloody body fluids.</li> </ul> <p><b>See:</b> Hepatitis B Risk Assessment.</p> <p><b>Pre-immunization serology:</b> Pre-immunization serology for previous hepatitis B infection is <b>not indicated for all HCW</b>; serology (including anti-HBs, HbsAg and anti-HBc total) is indicated for the following <b>high-risk populations with a high probability of past infection</b> regardless of their immunization status:</p> <ul style="list-style-type: none"> <li>HCWs who have emigrated from a country where hepatitis B is endemic</li> <li>HCWs with lifestyle risks for infection</li> <li>HCWs who are a spouse, sexual or needle sharing partner of a hepatitis B case or chronic carrier</li> <li>HCWs who are a household contact of a hepatitis B case or chronic carrier</li> </ul> <p><b>Post-immunization serology:</b> All HCW who qualify for hepatitis B immunization:</p> <ul style="list-style-type: none"> <li>1 to 6 months after completion of series.</li> <li>If post immunization serology was not done within the recommended interval following immunization it should be done at time of assessment.</li> <li>HCW who sustain a percutaneous (needle stick) exposure and whose anti-HBs at the time of exposure is 10 IU/L or greater but who</li> </ul>	<p>Primary series standard schedule is:</p> <ul style="list-style-type: none"> <li>3 doses spaced at 0, 1 and 6 months.</li> </ul> <p>For individuals delayed for second dose of vaccine, third dose should routinely be offered 5 months after second dose. For individuals at high risk of hepatitis B infection, minimal intervals may be considered.</p> <p>An alternative adolescent schedule of 2 doses of 1.0 mL administered on day 0 and 6 months later is also acceptable. Refer to product monograph.</p> <p>HCW who have received combined hepatitis A and B vaccine or hepatitis B vaccine using an accelerated schedule should be assessed using the minimum intervals outlined in the specific product monograph.</p> <ul style="list-style-type: none"> <li>HCWs who have lab confirmation of positive anti-HBs but without documentation of a complete hepatitis B vaccine series should be offered hepatitis B vaccine to complete the series to ensure long term immunity.</li> </ul> <p>Once a positive antibody result is documented no further serology is recommended.</p>

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			<p>do not have documentation of a complete hepatitis B vaccine series, should either complete the series or receive a series of vaccine.</p> <p><b>Note:</b> <i>The following are serological markers of laboratory evidence of immunity or disease:</i></p> <ul style="list-style-type: none"> <li>• Positive anti-HBs, or</li> <li>• Positive anti-HBc and/or</li> <li>• HBsAg positive/reactive</li> </ul> <p>Refer to the following link for more detailed information on interpretation of hepatitis B serological tests.</p> <p><a href="https://open.alberta.ca/publications/hepatitis-b-acute-and-chronic">https://open.alberta.ca/publications/hepatitis-b-acute-and-chronic</a></p> <p><b>See:</b> Hepatitis B Virus Infection – High Endemic Geographic Areas.</p> <p><b>See:</b> Hepatitis B Vaccine Recommendations Algorithm for Individuals Not at Risk of Past Infection.</p> <p><b>See:</b> Hepatitis B Vaccine Recommendations Algorithm for Individuals at High-Risk of Past Infection.</p> <p><b>See:</b> <a href="#">Occupational Considerations for Immunization</a></p>	
Varicella	Varilrix™ Varivax® III	Vz	<p>HCW with none of the following:</p> <ul style="list-style-type: none"> <li>• Documented history of 2 valid doses of varicella-containing vaccine; or</li> <li>• Laboratory evidence of immunity; or</li> <li>• Physician diagnosed shingles disease; or</li> <li>• Self-reported history or physician diagnosed varicella disease in Canada prior to a routine immunization program: <ul style="list-style-type: none"> <li>○ In Alberta, prior to January 2001.</li> <li>○ For start dates of other Canadian jurisdictions see the <a href="#">NACI Varicella Proof of Immunity - 2015 Update</a>.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• 2 doses of varicella vaccine with a minimum interval of 6 weeks between doses.</li> <li>• Shingrix doses cannot be counted in a varicella vaccine series.</li> <li>• Individuals who received their first dose of varicella-containing vaccine and at any point subsequently developed laboratory confirmed vaccine modified varicella disease do not require a second dose of varicella-containing vaccine.</li> </ul>
Influenza	<b>Note:</b> Annual influenza	FLU	All HCW	1 dose annually

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	<i>vaccine(s) may vary from year to year as determined and provided by AH.</i>			
Polio	Imovax® Polio	IPV OPV <sup>3</sup>	Health care workers in health care settings – <i>as they present</i> should complete a primary series and receive a single lifetime reinforcing dose. This includes: <ul style="list-style-type: none"> <li>Laboratory workers handling specimens that may contain poliovirus</li> <li>Health care workers (HCW) and health care students (HSC) who may be exposed to patients excreting wild or vaccine strains of poliovirus (contact with stool, fecal matter or pharyngeal secretions).</li> </ul>	If no documented history of primary series: <ul style="list-style-type: none"> <li>Dose 1: day 0</li> <li>Dose 2: 4 to 8 weeks</li> <li>Dose 3: 6 to 12 months after second dose.</li> </ul> If documentation of primary series: <ul style="list-style-type: none"> <li>One reinforcing dose at 18 years of age or older (at least 10 years after the primary series).</li> </ul>
Meningococcal B	Bexsero®	Men-B	Research, industrial and clinical laboratory personnel routinely exposed to <i>N. meningitidis</i> . Includes those workers only involved in conducting subculture identification, susceptibility testing, serological and/or molecular characterization and deep freeze for storage. Laboratory workers who do only initial specimen plants are not eligible.	Eligible laboratory workers: <ul style="list-style-type: none"> <li>2 doses with minimum 1 month between doses.</li> <li>The need for a reinforcing dose has not been established.</li> </ul>
Meningococcal ( <i>Neisseria meningitidis</i> )	Menactra™ Menveo™	MenC-ACYW	HCW (i.e., laboratory workers) who are routinely exposed to <i>Neisseria meningitidis</i> through subculture identification, susceptibility testing, serological and or molecular characterization. <ul style="list-style-type: none"> <li>Meningococcal conjugate quadrivalent A, C, Y, W135 vaccine to be provided to eligible HCW who received a dose of meningococcal polysaccharide quadrivalent A, C, Y, W135 in the past and it has been 5 years since this dose.</li> </ul>	All eligible HCW: <ul style="list-style-type: none"> <li>1 dose of meningococcal conjugate quadrivalent A, C, Y, W135 vaccine.</li> </ul> <b>Note:</b> <i>Though there is no data currently on the use of meningococcal conjugate quadrivalent vaccine in individuals 56 years of age and older, AH recommends this vaccine be used off license with the expectation of similar increased immune response and local reaction rates compared to meningococcal polysaccharide vaccine.</i>

<sup>3</sup> OPV – oral polio vaccine (Sabin®) no longer available in Canada

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Typhoid ( <i>Salmonella Typhi</i> )	Typherix™ Typhim Vi®	TYVI	HCW (i.e., laboratory workers) who regularly manipulate <i>Salmonella Typhi</i> .	Eligible HCW: <ul style="list-style-type: none"> <li>1 primary dose.</li> <li>Reinforcing dose every 2 to 3 years for HCW at ongoing risk.</li> </ul>
Tuberculosis ( <i>Mycobacterium tuberculosis</i> )	Tubersol®	PPD	<p>The purpose of baseline tuberculin skin test (TST) for HCW on employment is to establish baseline<sup>4</sup> <i>Mycobacterium tuberculosis</i> (TB) infection status in those individuals at risk for potential occupational exposure to an infectious case. The TST is recommended for HCW on employment (except those with a history of active TB disease or a history of a prior positive TST) as follows:</p> <ul style="list-style-type: none"> <li>Those with undocumented<sup>5</sup> prior TST results</li> <li>Those without history of prior TST (i.e., do not recall having received a TST before)</li> </ul> <p>Note: If the HCW has a documented negative baseline TST (or Interferon Gamma Release Assay (IGRA)) in the past (no time limit) and no subsequent high-risk TB exposures, no further TST is recommended at this time. The exception would be if the HCW will require annual screening. See the <i>Care Algorithm: TB Screening in Health Care Workers</i> for further information to determine who requires annual surveillance.</p> <p><b>See: Tuberculin biological page, Scheduling Section and Health Care Workers</b> for specific criteria.</p>	<p>Single baseline TST, unless there is a history of active TB disease or documentation of a previous positive TST<sup>6</sup>.</p> <ul style="list-style-type: none"> <li>The TST must be read 48-72 hours later by a qualified provider, not self-read<sup>7</sup>.</li> </ul> <p>A baseline 2-step TST<sup>8</sup> should be performed ONLY if the HCW:</p> <ul style="list-style-type: none"> <li>Is involved in high-risk activities and will be required to undergo repeated screening with TST at regular intervals (see <b>Tuberculin biological page, Scheduling Section and Health Care Workers</b> for specific criteria).</li> </ul>

<sup>4</sup> HCW in dental programs would not be included routinely as an eligible group for baseline TST unless they are working with high-risk individuals or in high-risk settings.

<sup>5</sup> HCW who give a history of blistering TST reaction should not receive a TST. HCW with history of undocumented positive TST reaction (other than blistering) can receive a TST. If the asymptomatic HCW declines the baseline TST then a CXR is not necessary as it does not replace the TST. For TB Services referral, a CXR should be completed within the past 6 months, this can be completed through a family physician. Note: TB Services may request a more recent CXR.

<sup>6</sup> HCW with a history of active TB or positive TST should have a chest X-ray through their family physician.

<sup>7</sup> Self-reading of TST is not an acceptable practice and should not be allowed under **any** circumstances.

<sup>8</sup> The 2-step TST should be repeated if the second TST was done more than 4 weeks (28 days) after the first TST.