

# Immunization Recommended for Healthcare Workers

Disease	Vaccine(s)	Acronym	Indication	Recommended Doses
Tetanus Diphtheria Pertussis	Adacel Boostrix	Tdap	All healthcare workers (HCW).	<p><b>No documented history</b> of primary series, complete a primary series of 3 doses:</p> <ul style="list-style-type: none"> <li>• Day 0</li> <li>• 4 to 8 weeks after first dose</li> <li>• 6 to 12 months after second dose.</li> </ul> <p><b>Documented history</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><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 Tdap regardless of the interval since the last dose of tetanus containing vaccine.</li> </ul>
Measles	MMR II Priorix	MMR	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>1</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 Priorix	MMR	HCW, regardless of year of birth, without documentation of 2 valid doses of mumps-containing vaccine or without documented laboratory confirmed mumps disease. <ul style="list-style-type: none"> <li>• Positive mumps IgG serology is not an acceptable indicator of immunity.<sup>1</sup></li> </ul>	<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 Priorix	MMR	HCW without documentation of at least 1 dose of rubella-containing vaccine or serological evidence of rubella immunity (rubella IgG positive) who have face to face contact with patients in health care facilities. <sup>1</sup>	<ul style="list-style-type: none"> <li>• 1 dose of rubella-containing vaccine after 12 months of age.</li> </ul>
Hepatitis B	Enerix-B Recombivax HB	HBV	HCW eligibility for hepatitis B vaccine is based on an assessment of the HCW's reasonably anticipated risk of: <ul style="list-style-type: none"> <li>• Exposure to blood/bloody body fluids or sharps in the course of their work</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>When the second dose of vaccine has been delayed, give the third dose 5 months after second dose.</p>

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			<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> <a href="#">Hepatitis B Risk Assessment</a>.</p> <p><b>See:</b> <a href="#">Occupational Considerations for Immunization</a></p> <p><b>Pre-immunization serology:</b> Pre-immunization serology for previous hepatitis B infection is <b>not</b> indicated for all HCW,</p> <p>Serology (including anti-HBs, HBsAg and anti-HBc total) <b>is</b> 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 person that is a hepatitis B case or chronic carrier.</li> <li>HCWs who are a household contact of a person that is 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>Send for serology 1-6 months after completion of series.</li> <li>Complete post-immunization serology at time of assessment if not done within the recommended interval following immunization.</li> <li>Once a positive antibody result is documented, no further serology recommended.</li> <li>Complete or start a series of hepatitis B vaccine for HCWs who sustain a percutaneous (needle stick) exposure, have anti-HBs of 10 IU/L or greater at the time of exposure, but who do not have</li> </ul>	<p>Minimum intervals may be considered for individuals at high risk of hepatitis B infection.</p> <p>History of an alternative adolescent schedule is also acceptable:</p> <ul style="list-style-type: none"> <li>2 doses of 1 mL hepatitis B vaccine given on day 0 and 6 months later. Refer to product monograph.</li> </ul> <p>Assess HCW who have received accelerated schedules of combined hepatitis A and B vaccine or hepatitis B vaccine using the minimum intervals outlined in the specific product monograph.</p> <p>Complete a series of hepatitis B vaccine to ensure immunity in HCWs who have lab confirmation of positive anti-HBs <b>without</b> documentation of a complete series.</p> <p>Once a positive antibody result is documented, no further serology recommended.</p>

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			<p>documentation of a complete series of hepatitis B vaccine.</p> <p><b>Note:</b> The following are serological markers of laboratory evidence of immunity or disease:</p> <ul style="list-style-type: none"> <li>• Positive anti-HBs</li> <li>• Positive anti-HBc</li> <li>• HBsAg positive/reactive.</li> </ul> <p>For detailed information on interpretation of hepatitis B serological tests, refer to <a href="#">Alberta public health disease management guidelines : hepatitis B – acute and chronic.</a></p> <p><b>See:</b> <a href="#">Hepatitis B Virus Infection -High Endemic Geographic Areas.</a></p> <p><b>See:</b> <a href="#">Hepatitis B Vaccine Recommendations Algorithm for Individuals Not at High-Risk of Past Infection.</a></p> <p><b>See:</b> <a href="#">Hepatitis B Vaccine Recommendations Algorithm for Individuals at High-Risk of Past Infection.</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.</li> <li>• Laboratory evidence of immunity (varicella IgG positive).</li> <li>• Laboratory confirmation of varicella disease (positive varicella PCR/NAT swab results).</li> <li>• Physician diagnosed shingles disease (confirmed by physician office).</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 subsequently developed laboratory confirmed (positive varicella PCR/NAT swab results) vaccine modified varicella disease <b>do not</b> require a second dose of varicella-containing vaccine.</li> </ul>
Influenza	<b>Note:</b> Annual influenza vaccine(s)	FLU	All HCW	1 dose annually.

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	may vary from year to year as determined and provided by Alberta Health.			
COVID-19	Available COVID-19 vaccine may vary as determined and provided by Alberta Health.	COVID-19	All HCW	See vaccine specific biological pages.
Polio	Imovax Polio	IPV	<p><b>HCW in healthcare settings:</b></p> <ul style="list-style-type: none"> <li>Complete a primary series <b>as they present</b> 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>HCW who may be exposed to patients excreting wild or vaccine strains of poliovirus (contact with stool, fecal matter or pharyngeal secretions).</li> </ul> </li> </ul>	<p>No documented history of primary series:</p> <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> <p>Documentation of primary series:</p> <ul style="list-style-type: none"> <li>1 reinforcing dose at 18 years of age or older (at least 10 years after the primary series).</li> </ul>
Meningococcal B	Bexsero	Men-B	<p>Laboratory research, industrial and clinical laboratory personnel routinely exposed to N. meningitidis.</p> <ul style="list-style-type: none"> <li>Includes only those workers involved in conducting subculture identification, susceptibility testing, serological and/or molecular characterization and deep freeze for storage.</li> <li>Laboratory workers who only do initial specimen plants are not eligible.</li> </ul>	<p>Eligible laboratory workers:</p> <ul style="list-style-type: none"> <li>2 doses with minimum 4 weeks between doses.</li> <li>The need for a reinforcing dose has not been established.</li> </ul>
Meningococcal	Menactra Menveo Nimenrix	MenC-ACYW	<p>Laboratory research, industrial and clinical laboratory personnel routinely exposed to N. meningitidis.</p> <ul style="list-style-type: none"> <li>Includes only those workers involved in conducting subculture identification, susceptibility testing, serological and/or molecular characterization and deep freeze for storage.</li> </ul>	<p>Eligible laboratory workers:</p> <ul style="list-style-type: none"> <li>1 dose.</li> <li>Booster dose every 5 years if risk continues.</li> </ul> <p>There is no data currently on the use of meningococcal conjugate quadrivalent vaccine in individuals 56 years of age and older. Off license use of this vaccine is recommended</p>

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			<ul style="list-style-type: none"> <li>Laboratory workers who only do initial specimen plants are not eligible.</li> </ul>	by AH with the expectation of similar increased immune response and local reaction rates compared to meningococcal polysaccharide vaccine.
Typhoid	Typherix Typhim Vi	TYVI	Laboratory workers who regularly manipulate Salmonella typhi.	<p>Eligible laboratory workers:</p> <ul style="list-style-type: none"> <li>1 primary dose.</li> <li>Reinforcing dose every 2 to 3 years for HCW if risk continues.</li> </ul>
Tuberculosis	Tubersol	PPD	<p>The purpose of baseline tuberculin skin test (TST) for HCW<sup>2</sup> on employment is to establish baseline Mycobacterium tuberculosis (TB) infection status in those individuals at risk for potential occupational exposure to an infectious case.</p> <p>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<sup>3</sup>) as follows:</p> <ul style="list-style-type: none"> <li>Those with undocumented<sup>4</sup> prior TST results.</li> <li>Those without history of prior TST (do not recall having received a TST before).</li> </ul> <p><b>Note:</b></p> <p>TST is not recommended 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.</p> <p>The exception would be if the HCW will require annual screening. For further information, refer to <a href="#">Appendix A: The Care Algorithm: TB Screening in Health Care Workers</a>.</p> <p><b>See:</b> <a href="#">Tuberculin Purified Protein Derivative (PPD) (Mantoux) Biological Page</a>.</p>	<p>Single baseline TST, unless there is a history of active TB disease or documentation of a previous positive TST.<sup>3</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>5</sup></li> </ul> <p>A baseline 2-step TST<sup>6</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.</li> <li>Refer to <a href="#">Tuberculin Purified Protein Derivative (PPD) (Mantoux) Biological Page</a> for specific criteria).</li> </ul>

<sup>1</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.

<sup>2</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.

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<sup>3</sup> HCW with a history of active TB or positive TST should have a chest X-ray through their family physician.

<sup>4</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>5</sup> Self-reading of TST is not an acceptable practice and should not be allowed under any circumstances.

<sup>6</sup> The 2-step TST should be repeated if the second TST was done more than 4 weeks (28 days) after the first TST.

## Appendix A

### Care Algorithm: Tuberculosis (TB) Screening in Health Care Workers (HCW)

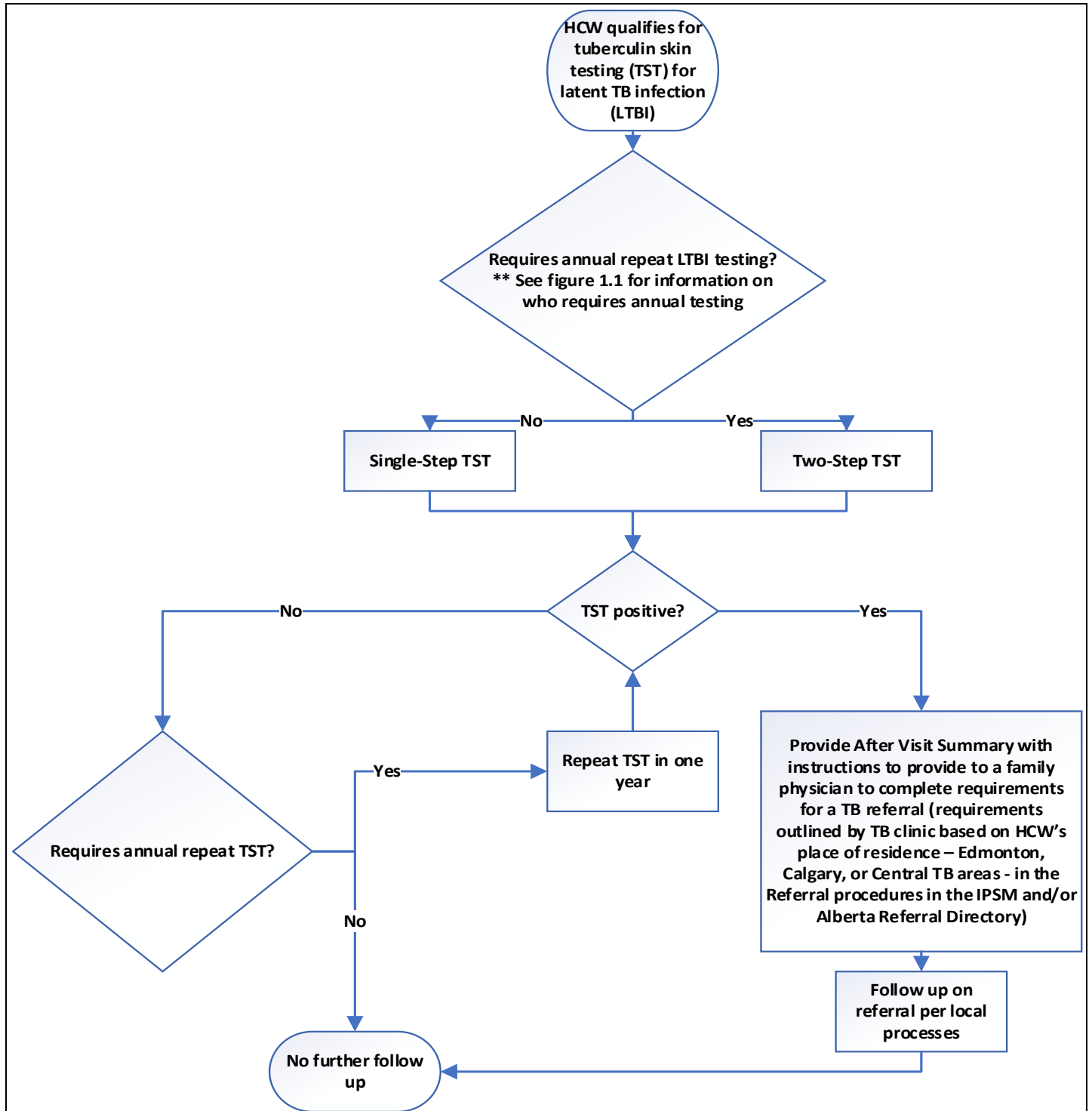
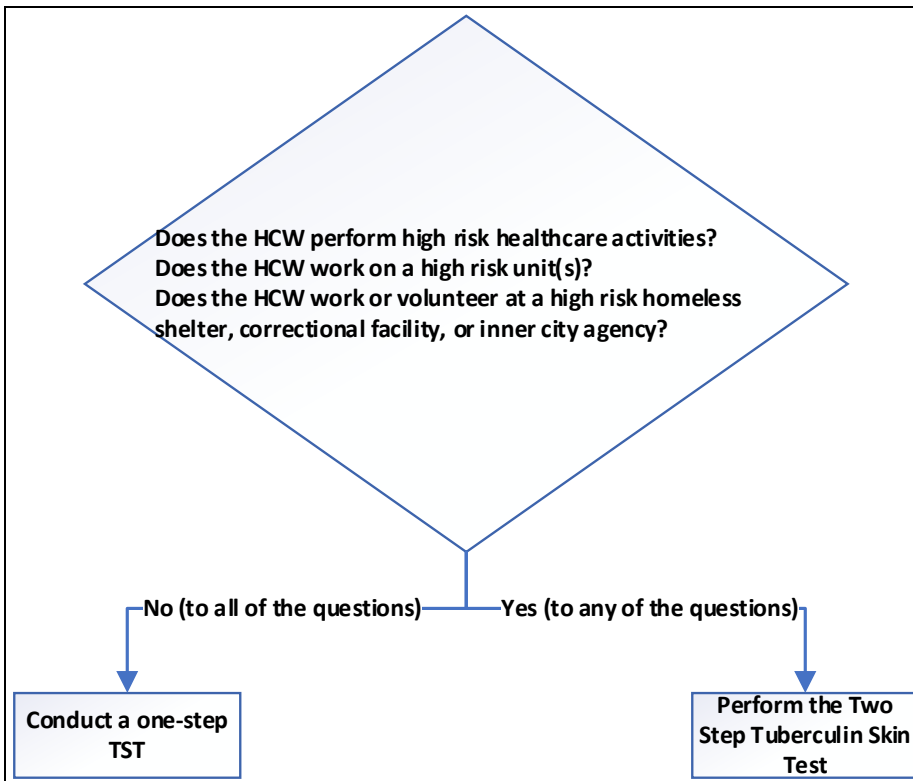


Figure 1.1 – Determining if One-Step or Two-Step TST is required



Adapted from Alberta Health Services' Workplace Health and Safety  
Procedure – CDA Tuberculosis Screening and Annual Surveillance,  
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