

Immunization Recommended for Healthcare Workers

Disease	Vaccine(s)	Acronym	Indication	Recommended Doses
Tetanus Diphtheria Pertussis	Adacel Boostrix	Tdap	All healthcare workers (HCW).	No documented history of primary series, complete a primary series of 3 doses: - Day 0 4 to 8 weeks after first dose 6 to 12 months after second dose. Documented history of primary series: - Reinforcing dose of tetanus/diphtheria/pertussis vaccine every 10 years. No documented history of a dose of acellular pertussis vaccine as an adult: 1 dose of Tdap regardless of the interval since the last dose of tetanus containing vaccine.
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). ¹	2 doses of measles-containing vaccine after 12 months of age. - Follow recommended minimum intervals for the specific vaccine.
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. Positive mumps IgG serology is not an acceptable indicator of immunity.¹	2 doses of mumps-containing vaccine after 12 months of age. - Follow recommended minimum intervals for the specific vaccine.
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. ¹	1 dose of rubella-containing vaccine after 12 months of age.
Hepatitis B	Engerix-B Recombivax HB	HBV	HCW eligibility for hepatitis B vaccine is based on an assessment of the HCW's reasonably anticipated risk of: Exposure to blood/bloody body fluids or sharps in the course of their work	Primary series standard schedule is: 3 doses spaced at 0, 1 and 6 months. When the second dose of vaccine has been delayed, give the third dose 5 months after second dose.

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			and - Transmission of hepatitis B infection to individuals when performing procedures that expose the individual to blood/bloody body fluids. See: Hepatitis B Risk Assessment See: Occupational Considerations for Immunization Pre-immunization serology: Pre-immunization serology for previous hepatitis B infection is not indicated for all HCW, Serology (including anti-HBs, HBsAg and anti-HBc total) is indicated for the following high-risk populations with a high probability of past infection regardless of their immunization status: - HCWs who have emigrated from a country where hepatitis B is endemic. - HCWs with lifestyle risks for infection. - HCWs who are a spouse, sexual or needle sharing partner of a person that is a hepatitis B case or chronic carrier. - HCWs who are a household contact of a person that is a hepatitis B case or chronic carrier. Post-immunization serology: All HCW who qualify for hepatitis B immunization: - Send for serology 1-6 months after completion of series. - Complete post-immunization serology at time of assessment if not done within the recommended interval following immunization. - Once a positive antibody result is documented, no further serology recommended. - 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	Minimum intervals may be considered for individuals at high risk of hepatitis B infection. History of an alternative adolescent schedule is also acceptable: 2 doses of 1 mL hepatitis B vaccine given on day 0 and 6 months later. Refer to product monograph. 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. Complete a series of hepatitis B vaccine to ensure immunity in HCWs who have lab confirmation of positive anti-HBs without documentation of a complete series. Once a positive antibody result is documented, no further serology recommended.

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			documentation of a complete series of hepatitis B vaccine. Note: The following are serological markers of laboratory evidence of immunity or disease: • Positive anti-HBs • Positive anti-HBc • HBsAg positive/reactive. For detailed information on interpretation of hepatitis B serological tests, refer to Alberta public health disease management guidelines : hepatitis B – acute and chronic. See: Hepatitis B Virus Infection -High Endemic Geographic Areas. See: Hepatitis B Vaccine Recommendations Algorithm for Individuals Not at High-Risk of Past Infection. See: Hepatitis B Vaccine Recommendations Algorithm for Individuals at High-Risk of Past Infection.	
Varicella	Varilrix Varivax III	VZ	HCW with none of the following: • Documented history of 2 valid doses of varicella-containing vaccine. • Laboratory evidence of immunity (varicella IgG positive). • Laboratory confirmation of varicella disease (positive varicella PCR/NAT swab results). • Physician diagnosed shingles disease (confirmed by physician office). • Self-reported history or physician diagnosed varicella disease in Canada prior to a routine immunization program: ○ In Alberta, prior to January 2001. ○ For start dates of other Canadian jurisdictions see the NACI Varicella Proof of Immunity -2015 Update.	• 2 doses of varicella vaccine with a minimum interval of 6 weeks between doses. • Shingrix doses cannot be counted in a varicella vaccine series. • 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 do not require a second dose of varicella-containing vaccine.
Influenza	Note: 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 Primary and Preventative Health Services.			
COVID-19	Available COVID-19 vaccine may vary as determined and provided by Primary and Preventative Health Services.	COVID-19	As per Alberta Immunization Policy indications.	See vaccine specific biological pages.
Polio	Imovax Polio	IPV	HCW in healthcare settings: - Complete a primary series as they present and receive a single lifetime reinforcing dose. This includes: - Laboratory workers handling specimens that may contain poliovirus. - HCW who may be exposed to patients excreting wild or vaccine strains of poliovirus (contact with stool, fecal matter or pharyngeal secretions).	No documented history of primary series: - Dose 1: day 0 - Dose 2: 4 to 8 weeks - Dose 3: 6 to 12 months after second dose. Documentation of primary series: 1 reinforcing dose at 18 years of age or older (at least 10 years after the primary series).
Meningococcal B	Bexsero	Men-B	Laboratory research, industrial and clinical laboratory personnel routinely exposed to N. meningitidis. - Includes only those workers involved in conducting subculture identification, susceptibility testing, serological and/or molecular characterization and deep freeze for storage. - Laboratory workers who only do initial specimen plants are not eligible.	Eligible laboratory workers: 2 doses with minimum 4 weeks between doses. - The need for a reinforcing dose has not been established.

Meningococcal	Menactra Menveo Nimenrix	MenC- ACYW	Laboratory research, industrial and clinical laboratory personnel routinely exposed to N. meningitidis. Includes only those workers involved in conducting subculture identification, susceptibility testing, serological and/or molecular characterization and deep freeze for storage.	Eligible laboratory workers: 1 dose. - Booster dose every 5 years if risk continues. 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
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			Laboratory workers who only do initial specimen plants are not eligible.	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.	Eligible laboratory workers: 1 primary dose. - Reinforcing dose every 2 to 3 years for HCW if risk continues.
Tuberculosis	Tubersol	PPD	The purpose of baseline tuberculin skin test (TST) for HCW on employment is to establish baseline Mycobacterium tuberculosis (TB) infection status in those individuals at risk for potential occupational exposure to an infectious case. See (link bio page) program notes for the definition of HCW for the purposes of TB screening. The TST is recommended for HCW on employment (except those with a history of active TB disease or a history of a prior significant TST)² as follows: - Those with undocumented³ prior TST results. - Those without history of prior TST (do not recall having received a TST before). Note: TST is not recommended if the HCW has a documented non-significant baseline TST⁴ in the past (no time limit) and no subsequent high-risk TB exposures.⁵ The exception would be if the HCW will require annual screening. For further information, refer to Appendix A: The Care Algorithm: TB Screening in Health Care Workers. See: Tuberculin Purified Protein Derivative (PPD) (Mantoux) Biological Page.	Single baseline TST, unless there is a history of active TB disease or documentation of a previously significant TST.² - The TST must be read 48-72 hours later by a qualified provider, not self-read.⁶ A baseline 2-step TST⁷ should be performed ONLY if the HCW: - Is involved in high-risk activities and will be required to undergo repeated screening with TST at regular intervals. - Refer to Tuberculin Purified Protein Derivative (PPD) (Mantoux) Biological Page for specific criteria).

¹ 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.

² HCW with a history of active TB or significant TST should have a chest X-ray through their family physician.

³ HCW who give a history of blistering TST reaction should not receive a TST. HCW with history of undocumented significant 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 3 months (Calgary) or within the past 6 months (all other areas). The CXR can be completed through a family physician. Note: TB Services may request a more recent CXR.

⁴Or documented negative IGRA. In the context of employment screening, a negative IGRA result could be considered interchangeable with the non-significant TST.

⁵Defined as travel to a TB endemic country, see the post travel section of the [Tuberculin Purified Protein Derivative \(PPD\) \(Mantoux\) Biological Page](#)., or confirmed contact with a person with infectious active TB.

⁶ Self-reading of TST is not an acceptable practice and should not be allowed under any circumstances.

⁷ 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)

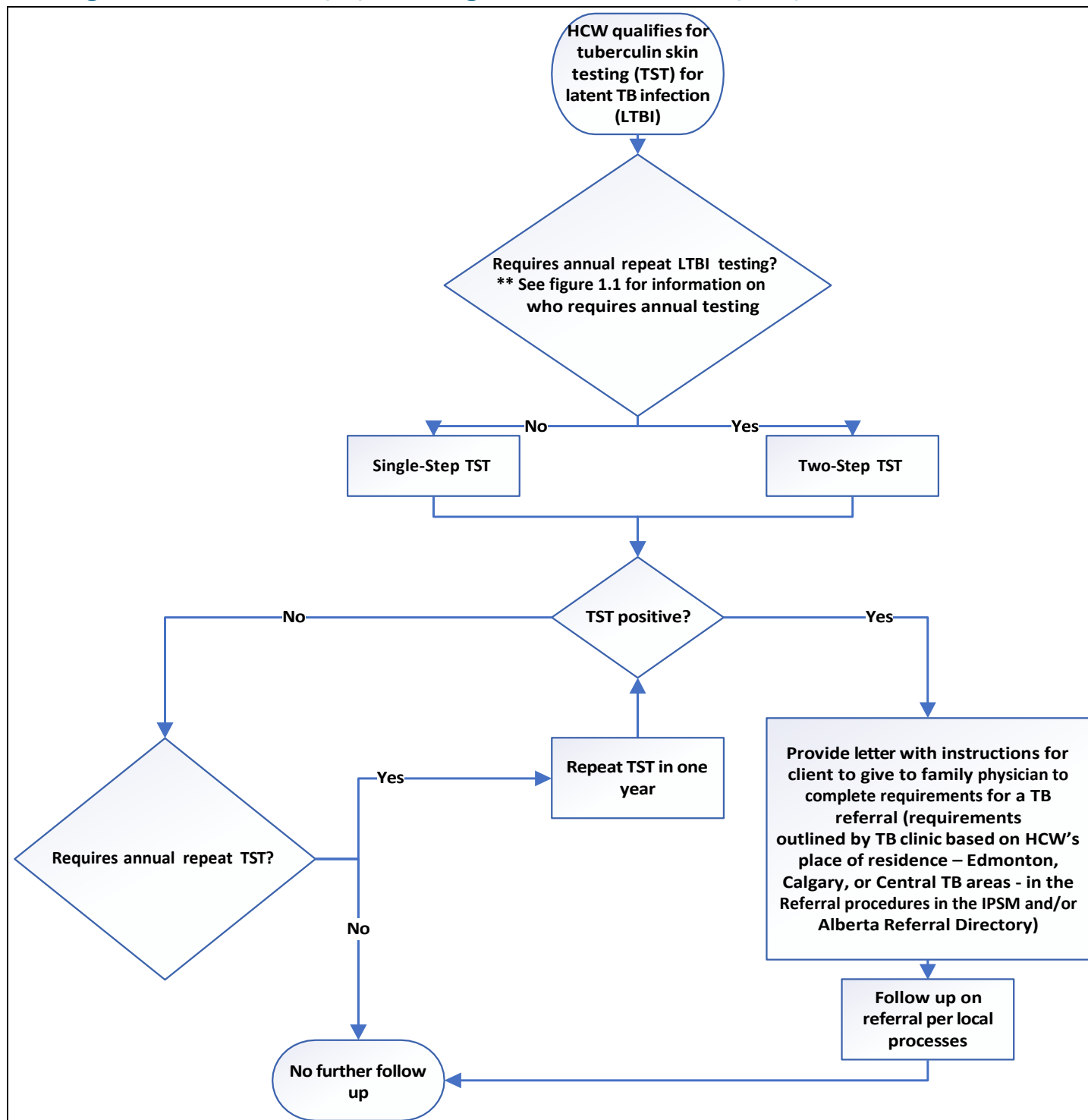
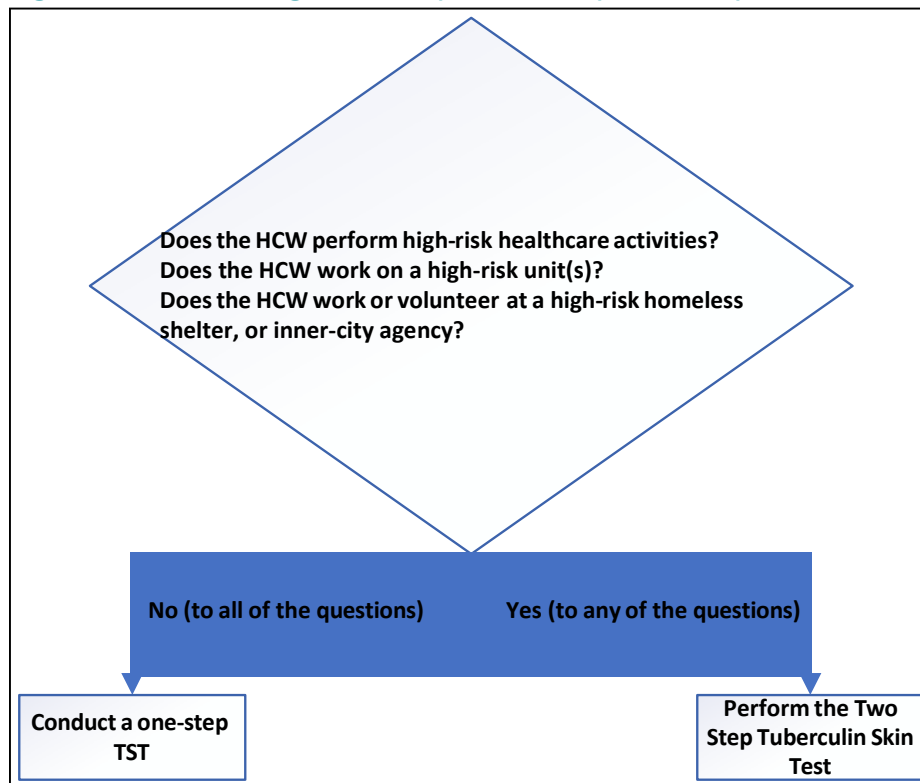


Figure 1.1 – Determining if One-Step or Two-Step TST is required



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