Treponemal point-of-care tests for syphilis

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1. **Point-of-care tests (POCTs) for syphilis can reduce barriers to care**
   Increasing screening uptake is important to reversing the rising rates of syphilis and congenital syphilis in Canada. Conventional screening for syphilis involves serologic laboratory testing. Barriers to accessing screening and delays to treatment created by lengthy test turnaround times may be addressed by POCTs. Point-of-care tests may be particularly beneficial in prenatal care settings and in communities with emerging syphilis outbreaks.

2. **Syphilis POCTs can be administered by trained individuals in a variety of settings**
   Point-of-care tests for syphilis that provide results in minutes can be performed in clinical, laboratory, and outreach settings. Fingerstick specimens can be used; results are read according to the manufacturer’s instructions. Trained lay testers can conduct POCTs, adhering to standard infection-control measures and disposal procedures for biological waste.

3. **The first syphilis POCT licensed in Canada detects treponemal antibodies**
   The first test authorized by Health Canada is a dual HIV and syphilis POCT (Appendix 1, available at www.cmaj.ca/lookup/doi/10.1503/cmaj.231548/tab-related-content). The syphilis component detects antibodies to *Treponema pallidum*, analogous to the first test in most serologic laboratory testing algorithms. Antibodies to *T. pallidum* usually remain positive after infection.

4. **Determining the suitability of POCTs and interpreting results requires clinical assessment**
   Treponemal POCTs cannot distinguish active from prior syphilis infections, so are not informative for individuals with previous infections. Following a positive POCT result, clinical staging is required to determine the appropriate syphilis treatment regimen and trace-back period for contacts. Patients with a negative result who have had recent syphilis exposures or clinical findings (e.g., lesion suspicious for a chancre) require follow-up. The benefits of POCTs are optimized through linking testing with clinical and laboratory services.

5. **Point-of-care tests cannot replace standard serologic laboratory tests**
   Serologic laboratory test results include quantitative nontreponemal titres. For those with a positive POCT result, titres support clinical staging and confirm treatment effectiveness. Serologic laboratory testing validates negative results on POCTs and is essential in diagnosing re-infections and evaluating congenital syphilis.

**References**


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