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Canadian guidelines on sexually transmitted infections, 2006

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The 2006 edition of the *Canadian Guidelines on Sexually Transmitted Infections* (STIs) is available online (at www.phac-aspc.gc.ca/std-mts/sti_2006/sti_intro2006_e.html) and in hard copy from the Canadian Public Health Association. For this edition, revision and chapter review followed an even more rigorous process, including literature review, STI expert rewrite and at least 4 rounds of blinded expert review — 3 rounds within the expert working group and another by 2 or more reviewers external to that group. Moreover, this edition indicates the level of recommendation and the quality of evidence for treatment options.

Over the past decade, increases have been reported in the incidences of 3 nationally reported STIs: chlamydia, gonorrhea and infectious syphilis. The 2006 guidelines emphasize that both primary and secondary STI prevention strategies are needed if incidences are to decrease. Primary prevention is aimed at preventing exposure by identifying at-risk individuals, performing a thorough assessment accompanied by patient-centred counselling and education, and immunization (e.g., for human papillomavirus infections, hepatitis A or B), when appropiate. Secondary prevention is aimed at preventing or limiting further spread by decreasing the prevalence of STIs through detection in at-risk populations, counselling, conducting partner notification and treating infected individuals and contacts. Front-line clinicians have key roles in both primary and secondary prevention.

The 2006 edition includes 3 new chapters. The one on primary care and STIs outlines practices for primary care professionals for STI prevention, counselling, screening, diagnosis, clinical management, reporting to public health and partner notification. A chapter on specific STIs includes descriptions of chancroid and lymphogranuloma venereum. Another discusses increased risks in specific populations such as immigrants and refugees, inmates and offenders, sex workers, men who have sex with men, women who have sex with women, and substance users.

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Highlights for specific STIs are also included in the new edition. For HIV, for example, the risks of transmission and acquisition are increased many times over when any of several other STIs such as syphilis and herpes simplex are present. For routine *Chlamydia trachomatis* infections, the guidelines emphasize the importance of screening all sexually active females under 25 years of age and all people (either sex, any age) who have risk factors for chlamydia infection (Box 1). The value of repeat screening 6 months after chlamydia treatment in light of the risk of reinfection is also highlighted.[1,2]

Box 1: Screening for common forms of *Chlamydia trachomatis*

- A high index of suspicion is needed among physicians
- The most sensitive and specific test for *C. trachomatis* is nucleic-acid amplification testing (NAAT)
- When a patient is asymptomatic for *C. trachomatis* and has no risk factor or other reason to suggest the need for an invasive sample, use noninvasive specimens such as urine (this will make screening more acceptable to patients)
- Neither cultures of *C. trachomatis* nor NAAT can distinguish between forms of *C. trachomatis* that cause LGV and those that do not; for that purpose, restriction fragment length polymorphism or DNA sequencing is needed
- Screen all sexually active girls and women < 25 years of age
- Screen males and females of any age who have *C. trachomatis* risk factors
- Repeat screening 6 months after chlamydia treatment, in light of the risk of reinfection

Note: LVG = lymphogranuloma venereum.

Box 2: Diagnosis and treatment of syphilis — highlights

- In addition to anogenital ulcers, search for oral syphilitic ulcers
- Note that nontreponemal syphilis tests (e.g., RPR) can have false-negative results in early cases of primary syphilis
- The treatment of choice for most stages of syphilis, except for neurosyphilis and congenital syphilis, is long-acting benzathine penicillin G. Amidst this syphilis resurgence, accessing the drug in Canada is proving to be a major public health and clinical challenge. It is currently available only through provincial/territorial STI services, which, as long as the medication is not marketed in Canada, obtain the medication from non-Canadian sources through Health Canada's Special Access Program.
- Preliminary results have been encouraging in the use of azithromycin to treat early syphilis.[5,6] However, recent reports of treatment failure and the rapid development of azithromycin genotypic resistance in *Treponema pallidum* preclude the routine use of this agent unless adequate and close follow-up can be ensured, and only in jurisdictions where little or no azithromycin genotypic resistance in *T. pallidum* has been demonstrated.[7-9]

Note: RPR = rapid plasma reagin, STI = sexually transmitted infection.

The serotypes of *C. trachomatis* that cause lymphogranuloma venereum (serotypes or serovars L1, 2 and 3) have until recently been relatively rare in Canada. These infections had been limited to sexual acquisition in the tropics, but there have been recent outbreaks of this rare form of *C. trachomatis* in Canada, as well as in Western Europe and the United States, with endemic transmission primarily among men who have sex with men who also have proctocolitis and inguinal or femoral lympadenopathy. Such outbreaks among men who have sex with men have been associated with concurrent infection with HIV, other STIs and acute hepatitis C, and with traumatic anal sex.

Box 3: Factors potentially contributing to an increase in reported STIs

- NAAT availability has improved diagnosis and ease of specimen collection
- "Safer sex" burnout in some at-risk individuals
- Innovations in HIV therapy have increased optimism, which may have decreased fears of infection
- Youth awareness of risk and knowledge of risk-reduction behaviours is still less than optimal
- Sexual debut is occurring at an earlier age, with high rates of serial monogamy
- Sexual activity is continuing into later life
- That the risk of STI transmission varies with different sexual activities is not well understood by the general public
- "Party drugs" (ecstacy, crystal meth) are increasingly being linked to unsafe sexual behaviours
- Anonymous partnering venues such as the Internet are expanding

Note: NAAT = nucleic acid amplification tests, HIV = human immunodeficiency virus, STI = sexually transmitted infection.

In *Neisseria gonorrhoeae*, the rate of quinolone resistance has been rising in many parts of the world, including the United States and parts of Canada. Quinolone therapy is not recommended, even in cases of pelvic inflammatory disease, whenever gonorrhea cases or contacts are epidemiologically linked to areas where the incidence of quinolone-resistant *N. gonorrhoeae* is above 3%–5%. Repeat screening 6 months after gonorrhea treatment is recommended because of the high risk of reinfection.[3,4]

Of particular note for syphilis, there have been multiple outbreaks in different parts of Canada during the past decade. Physicians need a higher index of suspicion than previously (Box 2).[5–9]

Rates of reported STIs have not decreased since the late 1990s; the need to strengthen STI prevention is clear. Box 3 lists potential factors that have been suggested for the increases in chlamydia, gonorrhea and infectious syphilis. Primary health care providers are strategically placed to play an important role in the prevention, detection and management of STIs.

Given the increases in reported STIs with resurgence of old foes such as syphilis and escalating problems with chlamydia and HIV infections, this is an opportune time for public health and clinical professionals to join together in the fight to get the STI epidemic under control.

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