



# STIs

## Screen pregnant women to prevent obstetric complications

BY ELIANE DUARTE-FRANCO, MD AND MARC STEBEN, MD

Sexually transmitted infections (STIs) are on the rise in Canada. Rates of *Chlamydia trachomatis*, for instance, have almost doubled over the past 7 years, and public health officials estimate that reported cases represent only 10% of the actual numbers, as infections are often asymptomatic. *C. trachomatis* is by far the most common bacterial STI in Canada, with now more than 60,000 cases reported per year. Rates of gonorrhea and syphilis are going up as well — combined, these three STIs account for more than half of all notifiable diseases in Canada.<sup>1</sup> In addition to their social stigma, these infections are a genuine health threat given their numerous long-term consequences, including an increased risk of HIV acquisition as well as obstetric and perinatal negative outcomes.

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References and suggested reading:

1. Public Health Agency of Canada. 2004 Canadian Sexually Transmitted Infections Surveillance Report. *Canada Communicable Disease Report* 2007;33(S1):1-69.
2. National Advisory Committee on Immunization (NACI). Statement on human papillomavirus vaccine. *Canada Communicable Disease Report* 2007;33(ACS-2):1-32.
3. Public Health Agency of Canada. Canadian Guidelines on Sexually Transmitted Infections, 2006 Edition.

### Prevention

- safe sex practices, e.g. use of condoms
- for *Chlamydia trachomatis*:
  - screen all pregnant women at the first prenatal visit; if positive or at high risk, rescreen in the 3<sup>rd</sup> trimester
  - all infected individuals: rescreen at 6 months and assess partners (test, treat and counsel)
- for genital warts:
  - preferred: complete sexual abstinence and avoidance of contact with the anogenital area, since condoms don't reliably prevent human papillomavirus (HPV) infection
  - a vaccine against HPV types 6,11,16 and 18 is available and is recommended for girls and women aged 9-26 years; the first two types provide protection against viruses that cause 90% of genital warts; the last two protect against the virus types responsible for 70% of cervical cancers<sup>2</sup>
- for syphilis:
  - increasing rates of congenital syphilis highlight the need for diligent prenatal screening and postnatal assessment
  - screen high-risk pregnant women in the 1<sup>st</sup> trimester, at 28-32 weeks and again at delivery; provide test results to the newborn's physician

### HPV

- genital warts are diagnosed clinically
- there's no eradication treatment at present
- 90% of genital warts will clear in 2 years with or without treatment; after local Tx, new lesions occur in 20-30% of cases

### Risk factors

- unprotected oral, genital or anal sex
- other unsafe sex practices — with blood exchange — including sadomasochism and sharing of sex toys
- substance use, especially when combined with sexual activity
- other STIs and bacterial vaginosis facilitate sexual transmission of HIV
- being a member of certain populations:<sup>3</sup>
  - men who have sex with men
  - having multiple sex partners
  - street-involved
  - immigrants and refugees
  - sex workers
  - inmates

### *Chlamydia trachomatis*

#### Diagnosis

- pelvic exam is essential
- non-invasive urine-based nucleic acid amplification test (NAAT) — for non-medicolegal testing; this test may be reserved to men in some labs; may be performed 48 hours post-exposure; appropriate for asymptomatic individuals
- culture — for medicolegal purposes; can be done on blood and/or mucus as well as throat or rectal specimens; wait 48 hours after exposure
- serology — recommended for *C. trachomatis* pneumonia of infants (< 3 months of age); not to be used in the diagnosis of genital chlamydial infections

#### Treat if

- positive *Chlamydia* test
- clinical diagnosis of *Chlamydia* infection
- *Chlamydia* infection or syndrome in sexual partner
- diagnosis of gonorrhea (20-42% chance of co-infection)

#### Treatment

- in non-pregnant, non-lactating adults with urethral, endocervical, rectal and/or conjunctival infection: azithromycin (1 g PO, single dose) or — if cost is an issue — doxycycline (100 mg PO b.i.d. for 7 days)
- alternative: ofloxacin (300 mg PO b.i.d. for 7 days)
- advise abstinence from unprotected sex until treatment is completed for both partners (at the end of multiple dose regimen or after 7 days for single-dose therapy)

### Gonorrhea

#### Diagnosis

- culture — method of choice for allowing antimicrobial susceptibility testing; test may be false-negative if done < 48 hours post-exposure; especially important in sexual abuse of children, sexual assault, treatment failure, evaluation of pelvic inflammatory disease, or if the infection was acquired in a recognised antimicrobial resistant area
- NAAT — may be the only available option; useful if pelvic examination or urethral swab are refused

#### Treatment

- cefixime (400 mg PO, single dose) or ceftriaxone (125 mg IM, single dose)
- don't use quinolones unless culture shows that the strain is sensitive to these meds
- as alternatives, give azithromycin (2 g PO, single dose) or spectinomycin (2 g IM, single dose); the latter is only available through Health Canada's Special Access Programme; this is also the treatment of choice if the patient is allergic to cephalosporin or penicillin
- advise abstinence from unprotected sex until treatment is completed for both partners (7 days after single-dose therapy)

### Infectious syphilis

- regional outbreaks have overcome hopes of elimination
- highest rates found in men who have sex with men
- ask help of an expert to interpret results of syphilis serology if not experienced
- obtain and document prior history of treatment and prior serology results
- treatment of infectious and latent syphilis in adults: penicillin G benzathine IM (2.4 million units, single dose) is the treatment of choice; only available through Health Canada's Special Access Programme or your local Public Health Authorities