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INTRODUCTION

These guidelines were created as a resource for clinical and public health professionals — especially nurses and physicians — for the prevention and management of STIs across a diverse patient population, including neonates, children, adolescents and adults.

Since the release of the *Canadian Guidelines on Sexually Transmitted Infections-2006 Edition*, the Expert Working Group (EWG) for the guidelines which includes STI experts from the fields of medicine, nursing, laboratory, public health and research have volunteered their time and effort as authors and reviewers to maintain updated, evidence-based recommendations for the prevention, diagnosis, treatment and management of STIs in Canada. The content of these current *Canadian Guidelines on Sexually Transmitted Infections* reflects emerging issues and highlight changes in the STI literature since the release of the 2006 guidelines. Guidelines presented in this document reflect the views of the Expert Working Group on Canadian Guidelines for Sexually Transmitted Infections. They should be construed *not* as rules but rather as recommendations.

Canada is a signatory of the WHO global strategy for the prevention and control of sexually transmitted infections 2006-2015 which stipulates that STI prevention and control need to be linked to HIV prevention and sexual and reproductive health programmes and services. The strategy also highlights the need for collaborative efforts at various levels and venues of service delivery for programmes to reach and have the greatest impact on those at risk of STI/HIV and other communicable diseases.

Practitioners should be aware of the emerging research linking STI to preventable chronic diseases in both men and women, such as cancers. Primary care providers are well positioned to offer patient centered STI screening, diagnosis, management and treatment services to a wide range of their patients. Making such a continuum of STI services available, primary care providers have the potential to significantly impact chronic diseases prevention and control in the long-term.

Future Developments

As within many areas in the health sector, innovation and development are part of the growing body of knowledge and tools used in the prevention, treatment and management of disease and infection. We recommend consulting a variety of mechanisms/sources to maintain and enhance your clinical practice.

Canadian Guidelines on STI: A New Look

The current binder version of the *Canadian Guidelines on Sexually Transmitted Infections* contains all the updates that were brought to the 2006 Edition and are currently posted on the PHAC website. This new version follows the same section division, chapter order and chapter layout as the previous bound version.

There has been a general index added to the end of the guidelines which highlights which sections key words are found in and then a chapter and page specific index at the end of the sections.

The pagination in the guidelines is now chapter-specific and the section specific index reflects this change. It is anticipated that these changes will facilitate publication of updates for the Guidelines on bi-annual basis, and a two-step index search process (chapter-wise and page-wise) will help readers to navigate the Guidelines easier and faster. The move to a binder format is expected to result in making the Guidelines a live document reflecting the most recent evidence available and making the production and dissemination of updates more time efficient and environmentally friendly.

References for the Canadian Guidelines on Sexually Transmitted Infections are available at: www.publichealth.gc.ca/sti.

Need to Strengthen Prevention

In Canada, there are three nationally reportable STIs: chlamydia, gonorrhea and infectious syphilis. Since 1997, there has been a steady increase in the rates of all three infections. This phenomenon is not unique to Canada; other countries, including the U.S. and the U.K., have reported similar trends.^{1,2} Targeted enhanced surveillance and research are required to determine the factors that may be playing a role in these trends. Some of the possible factors may include the following:

- Nucleic acid amplification tests (NAATs) have been introduced.
- Some people may have developed safer-sex burnout.
- There have been innovations in HIV therapy (e.g., highly active antiretroviral therapy), leading to related treatment optimism.
- Youth awareness of risks and knowledge of risk-reduction behaviours remain less than optimal.³
- Sex is occurring at an early age, with a high rate of serially monogamous relationships.
- Sex is continuing later in life.
- The transmission risks of STIs associated with sexual activity (vaginal, anal and oral) are not well understood by the public.
- “Party drugs,” such as ecstasy and crystal meth, are being increasingly linked to unsafe sexual behaviours.⁴
- Anonymous partnering venues, such as the Internet, are expanding.

By being aware of trends in STIs, risk factors and affected populations, primary care providers and public health practitioners can be strategically placed to apply relevant and complementary individual and community-based education and patient services.

The prevention and control of STIs cannot be approached with a narrow focus. The appropriate medical management of identified cases of STIs is but one piece of the puzzle. Both primary and secondary prevention activities are paramount to reducing the incidence (newly acquired infections) and prevalence (number of cases) of STIs. Primary prevention aims to prevent exposure by identifying at-risk individuals and performing thorough assessments, patient-centred counselling and education.⁵

Secondary prevention involves reducing the prevalence of STIs through the detection of infections in at-risk populations, counselling, conducting partner notification and treating infected individuals and contacts in a timely manner, thus preventing and/or limiting further spread.⁵

Both the burden of disease and potential complications associated with STIs are relevant and significant considerations for health professionals and decision makers. The presence of an acute infection can increase the risk of co-infection: for example, an ulcer from an infection such as syphilis can significantly increase the risk of acquiring and transmitting an HIV infection. The sequelae for women from untreated infections such as chlamydia and gonorrhoea can include pelvic inflammatory disease, chronic pelvic pain, ectopic pregnancy and infertility. In recent years, there has also been increasing evidence to support the role of persistent human papillomavirus (HPV) infections in cervical dysplasia and carcinoma.

As we strive to attend to the physiological needs of patients, we must also be prepared to attend to their psychological needs as well. Chronic viral STI can have long-standing negative impacts on a patient's psychosocial well-being. The many potential impacts and sequelae of STIs highlight the need for strengthened prevention efforts.

LEVELS AND QUALITY OF EVIDENCE FOR TREATMENT RECOMMENDATIONS

This updated version contains the same levels of recommendation and quality of evidence indicators for the treatment recommendations as the 2006 Edition. The indicators used reflect a combination of the methodologies from the U.S. Preventive Services Task Force and the Canadian Task Force on Preventive Health Care and have been modified and simplified for use in these guidelines as outlined in Tables 1 and 2.

Table 1. Levels of recommendation
(Modified from Harris RP, et al.⁶)

Recommendation: A	Strongly recommends that clinicians routinely provide the treatment to eligible patients. Good evidence that the treatment improves important health outcomes and concludes that benefits substantially outweigh harms
Recommendation: B	Recommends that clinicians routinely provide the treatment to eligible patients. At least fair evidence that the treatment improves important health outcomes and concludes that benefits outweigh harms
Recommendation: C	No recommendation for or against routine provision of the treatment. At least fair evidence that the treatment can improve health outcomes but concludes that the balance of the benefits and harms is too close to justify a general recommendation
Recommendation: D	Recommends against routinely providing the treatment to asymptomatic patients. At least fair evidence that the treatment is ineffective or that harms outweigh benefits
Recommendation: I	Evidence is insufficient to recommend for or against routinely providing the treatment. Evidence that the treatment is effective is lacking, of poor quality or conflicting , and the balance of benefits and harms cannot be determined

Table 2. Quality of evidence
(Modified from Harris RP, et al.⁶ and Gross PA, et al.⁷)

I	Evidence from at least one properly randomized, controlled trial
II	Evidence from at least one well-designed clinical trial without randomization, from cohort or case-control analytic studies (preferably from more than one centre), from multiple time-series studies or from dramatic results in uncontrolled experiments
III	Evidence from opinions of respected authorities based on clinical experience, descriptive studies or reports of expert committees

IMPORTANT CONSIDERATIONS FOR GUIDELINES USERS

The EWG and the PHAC acknowledge that the advice and recommendations set out in this document are based upon the best current available scientific knowledge and medical practices, and they are disseminating this document to clinical and public health professionals for information purposes.

While these guidelines are based on current evidence and clinical practice, the prevention, diagnosis, treatment and management of STIs is an evolving field. The EWG and PHAC will be regularly updating the information and recommendations in the *Guidelines*. Readers are encouraged to consult the PHAC website (www.publichealth.gc.ca/sti) for ongoing chapter update(s). In 2008, an electronic database will be developed for the purposes of alerting *Guidelines* users on updates and related issues. If you wish to be notified of the coming updates and provide your feedback or comments on the use of the Guidelines, we ask you to complete the form at the beginning of the document and return it to the Public Health Agency of Canada by email or fax as indicated on the form.

Persons administering or dispensing drugs, vaccines or other products should also be aware of the contents of the individual product monograph(s) for those products, or other similarly approved standards or instructions for use provided by the licensed manufacturer(s). Recommendations for use and other information set out in these guidelines may differ from that set out in product monograph(s) or other similarly approved standards or instructions for use. Manufacturers have sought approval and provided evidence as to the safety and efficacy of their products only when used in accordance with the product monograph(s) or other similarly approved standards or instructions for use.

Practitioners should report adverse drug reactions to the Canadian Adverse Drug Reaction Monitoring Program (CADRMP). For specifications and standards of reporting, consult Health Canada's CADRMP guidelines.

While this document addresses key issues related to the prevention, diagnosis, treatment and management of the most common STIs, it is beyond the scope of these guidelines to provide comprehensive recommendations for the treatment and management of HIV and viral hepatitis C. When confronted with these infections, either as a primary infection or a co-infection, we suggest that you refer to alternate resources (see below for suggestions), including colleagues experienced in the area.

- Strader DB, Wright T, Thomas DL, Seeff LB. AASLD practice guideline: diagnosis, management, and treatment of hepatitis C. *Hepatology* 2004;39:1147–1171.
- U.S. Department of Health and Human Services, Panel on Clinical Practices for Treatment of HIV Infection. *Guidelines for the Use of Antiretroviral Agents in HIV-1–Infected Adults and Adolescents*. Available at: <http://www.aidsinfo.nih.gov/Guidelines/GuidelineDetail.aspx?MenuItem=Guidelines&Search=Off&GuidelineID=7&ClassID=1> (Accessed December 19, 2007)