



Guideline Summary NGC-9153

Guideline Title

Canadian HIV pregnancy planning guidelines.

Bibliographic Source(s)

Loutfy MR, Margolese S, Money DM, Gysler M, Hamilton S, Yudin MH. Canadian HIV pregnancy planning guidelines. J Obstet Gynaecol Can 2012 Jun;34(6):575-90. [80 references] [PubMed](#)

Guideline Status

This is the current release of the guideline.

Scope

Disease/Condition(s)

- Human immunodeficiency virus (HIV) infection
- Planned and unintended pregnancy
- Preconception health
- Infertility

Guideline Category

Counseling
Evaluation
Management
Prevention
Risk Assessment
Treatment

Clinical Specialty

Family Practice
Infectious Diseases
Internal Medicine
Obstetrics and Gynecology
Preventive Medicine

Intended Users

Advanced Practice Nurses
Health Care Providers
Nurses
Patients
Physician Assistants
Physicians
Public Health Departments

Guideline Objective(s)

To provide clinical information and recommendations for health care providers to assist human immunodeficiency virus

To provide clinical information and recommendations for health care providers to assist human immunodeficiency virus (HIV)-positive individuals and couples with their fertility and pregnancy planning decisions

Target Population

Canadian individuals and couples who are human immunodeficiency virus (HIV)-positive

Interventions and Practices Considered

1. Provision of reproductive health counseling to all human immunodeficiency virus (HIV)-positive individuals
2. Testing of prospective parents for other sexually transmitted infections
3. Counseling on risk of horizontal and vertical transmission of HIV
4. Counseling to help couples cope with fear, stigma, and other psychosocial issues, such as postpartum depression
5. Counseling HIV-positive individuals about the legal and ethical issues related to their HIV status
6. Use of combination antiretroviral therapy preconception and during pregnancy
7. Prevention of horizontal transmission through home insemination or sperm washing with intrauterine insemination
8. Referral to fertility specialists when required
9. Infertility investigations and treatment
10. HIV infection control in fertility clinics

Major Outcomes Considered

- Mental and psychosocial health of human immunodeficiency virus (HIV)-positive parents
- Risk of vertical and horizontal transmission of HIV
- Effectiveness of assisted reproductive technology in serodiscordant couples
- Stigma associated with pregnancy and HIV
- Access to pregnancy planning and fertility services

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

PubMed and Medline were searched for articles published in English or French to December 20, 2010, using the following terms: "HIV" and "pregnancy" or "pregnancy planning" or "fertility" or "reproduction" or "infertility" or "parenthood" or "insemination" or "artificial insemination" or "sperm washing" or "IVF" or "ICSI" or "IUI." Other search terms included "HIV" and "horizontal transmission" or "sexual transmission" or "serodiscordant." The following conference databases were also searched: Conference on Retroviruses and Opportunistic Infections, International AIDS Conference, International AIDS Society, Interscience Conference on Antimicrobial Agents and Chemotherapy, the Canadian Association of HIV/AIDS Research, and the Ontario HIV Treatment Network Research Conference. Finally, a hand search of key journals and conferences was performed, and references of retrieved articles were reviewed for additional citations. Subsequently, abstracts were categorized according to their primary topic (based on an outline of the guidelines) into table format with the following headings: author, title, study purpose, participants, results and general comments. Finally, experts in the field were consulted for their opinions as to whether any articles were missed.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Quality of Evidence Assessment*

I: Evidence obtained from at least one properly randomized controlled trial

II-1: Evidence from well-designed controlled trials without randomization

II-2: Evidence from well-designed cohort (prospective or retrospective) or case-control studies, preferably from more than one centre or research group

II-3: Evidence obtained from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled experiments (such as the results of treatment with penicillin in the 1940s) could also be included in this category

III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees

*Adapted from the Evaluation of Evidence criteria described in the Canadian Task Force on Preventive Health Care.

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review

Description of the Methods Used to Analyze the Evidence

The quality of evidence was rated using the criteria described in the Report of the Canadian Task Force on Preventive Health Care. Recommendations for practice were ranked according to the method described in that report (see the "Rating Scheme for the Strength of the Evidence" and the "Rating Scheme for the Strength of the Recommendations" fields) and through use of the Appraisal of Guidelines Research and Evaluation instrument for the development of clinical guidelines.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Not stated

Rating Scheme for the Strength of the Recommendations

Classification of recommendations[†]

- A.** There is good evidence to recommend the clinical preventive action
- B.** There is fair evidence to recommend the clinical preventive action
- C.** The existing evidence is conflicting and does not allow to make a recommendation for or against use of the clinical preventive action; however, other factors may influence decision-making
- D.** There is fair evidence to recommend against the clinical preventive action
- E.** There is good evidence to recommend against the clinical preventive action
- L.** There is insufficient evidence (in quantity or quality) to make a recommendation; however, other factors may influence decision-making

[†]Adapted from the Classification of Recommendations criteria described in the Canadian Task Force on Preventive Health Care.

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

These guidelines have been written and reviewed by the Canadian HIV Pregnancy Planning Guideline Development Team in partnership with the Society of Obstetricians and Gynaecologists of Canada (SOGC), the Canadian Fertility and Andrology Society and the Canadian HIV/AIDS Trials Network. They were reviewed by the Infectious Diseases Committee and the Reproductive Endocrinology and Infertility Committee of the Society of Obstetricians and Gynaecologists of Canada and by the Canadian HIV Pregnancy Planning Guideline Development Team Core Working Group, and endorsed by the Executive and Council of the SOGC.

Recommendations

Major Recommendations

The quality of evidence (**I-III**) and classification of recommendations (**A-L**) are defined at the end of the "Major Recommendations."

Human immunodeficiency virus (HIV)-positive people who are considering pregnancy should be counselled on the following issues so they can make an informed decision.

Ensuring a Healthy Mother, Child, and Family

Recommendations

1. Reproductive health counselling, including contraception and pregnancy planning, should be offered to all reproductive-aged HIV-positive individuals soon after HIV diagnosis and on an ongoing basis. (**II-3A**)
2. Men and women should be counselled on all relevant aspects of pregnancy planning, such as maintaining a healthy diet and lifestyle, the risk of genetic disease occurrence, and integrated prenatal screening, as outlined in current Canadian practice guidelines irrespective of their known HIV status. (**III-A**)
3. Women with no risk factors should start taking folic acid (in the form of vitamin supplements) 1 mg a day for 3 months before becoming pregnant and for at least the first 3 months of their pregnancy. (**II-3A**)

4. Women should be encouraged to give up smoking, drinking alcohol, and using recreational drugs, and should be referred for support if required. **(III-A)**
5. Both prospective parents should be tested for other sexually transmitted infections, even if they have conceived in the past and have no symptoms of infection. **(III-A)**

Psychosocial/Mental Health Issues Related to HIV Pregnancy Planning and Fertility

All individuals or couples planning pregnancy are potentially susceptible to psychosocial and mental health problems. An additional burden may be placed on the HIV-positive individual or couple because of stigma associated with the condition and the risks of HIV transmission.

Recommendations

6. Counselling should be performed by a knowledgeable health care professional or trained peer counsellor in a supportive, non-judgemental manner that takes into account sexual diversity and ethnocultural or religious beliefs and practices. **(III-A)**
7. Counselling should include a discussion of the potential risk for both horizontal (between partners) and vertical (from mother to child) transmission and how that might affect the mental health of one or both parents. **(III-A)**
8. HIV-positive people who intend to conceive should be made aware of the potential stigma and discrimination they may face from others who are less informed about how HIV is transmitted, horizontally and vertically. In addition, HIV-positive women who are not breastfeeding should be made aware that they may face disapproval from people who are not aware of their HIV status. **(II-3A)**
9. Further counselling may be suggested to help couples and individuals cope more effectively with fear, stigma, and other psychosocial issues, such as postpartum depression. **(II-3A)**

Legal and Ethical Issues

Recommendations

10. All HIV-positive individuals should be counselled on the possible legal ramifications of non-disclosure of their HIV status to their sexual partner(s). **(III-A)**
11. HIV-positive women who are considering pregnancy should be counselled on the possibility of legal action if they do not permit antiretroviral therapy to be given to their baby after birth. **(III-B)**
12. Ethical considerations, including those related to the health status of HIV-positive individuals or couples, should be discussed during pre-conception counselling. **(III-B)**

Antiretroviral and Other Drugs in Pregnancy Planning

Recommendations

13. Clinicians should review all medications that HIV-positive men and women may be using, including antidepressants, pain medications, over-the-counter medications, and hepatitis treatment, to ensure that they are safe during conception and pregnancy. **(II-3A)**
14. All HIV-positive men and women who require combination antiretroviral therapy for their own health during the preconception period should be advised to continue their current regimens, but women should not take any drugs that are potentially teratogenic or considered toxic in pregnancy, substituting other drugs when necessary or possible. The most efficacious regimen that is safe in pregnancy should be selected. **(II-3A)**
15. HIV-positive women who do not require combination antiretroviral therapy for their own health need to consider starting treatment before becoming pregnant or no later than late in the first trimester of pregnancy. The most efficacious regimen that is safe in pregnancy should be selected. **(II-3A)**
16. HIV-positive men and women who require treatment should be encouraged to initiate combination antiretroviral therapy during the pre-conception period to reduce HIV plasma viral load, which can reduce the risk of HIV transmission to their HIV-negative partner or reduce the risk of superinfection of their HIV-positive partner. **(II-3B)**
17. All decisions about the use of combination antiretroviral therapy and other drugs during pregnancy should be made in consultation with experts such as HIV specialists and pharmacists. **(III-A)**

Scenario-Based Recommendations for the Prevention of Horizontal HIV Transmission

The recommended option may not always be the most practical or preferred option for the patient, given availability of services, cost, cultural beliefs, or personal risk evaluation. Physicians and other health care providers should provide non-judgemental support of the patient's decision.

HIV-Positive Woman and HIV-Negative Man

Recommendations

18. For serodiscordant couples in which the woman is HIV positive, it is preferable to attempt home insemination with the partner's sperm during ovulation for 3 to 6 months before considering other methods. **(III-A)**
19. If home insemination is unsuccessful, couples should be referred to a gynaecologist for consultation and then to a fertility specialist for a complete fertility work-up and appropriate treatment when necessary, including counselling on all assisted reproductive technologies if pregnancy is not achieved in 6 to 12 months. **(III-A)**

HIV-Positive Single Woman or HIV-Positive Woman in a Same-Sex Relationship

Recommendation

20. Single HIV-positive women or HIV-positive women in a same-sex relationship should be referred to a fertility specialist and should consider the option of intrauterine insemination with HIV-negative donor sperm. This option is preferred over home insemination with donor sperm because the cost of sperm is high and intrauterine insemination performed in a fertility clinic has a higher success rate than home insemination. If sperm from a known donor is used for intrauterine insemination, regulations applicable to the donation of sperm must be followed. **(III-A)**

HIV-Positive Man and HIV-Negative Woman

Recommendations

21. Serodiscordant couples in which the man is HIV positive should be referred to a fertility specialist and should consider the preferred option of sperm washing with intrauterine insemination. **(II-2A)**

22. If intrauterine insemination is unsuccessful, couples should consider in vitro fertilization or intracytoplasmic sperm injection with either sperm washing or the use of donor sperm. **(II-3A)**

23. HIV-positive men who do not require combination antiretroviral therapy for their own health should be encouraged to initiate combination antiretroviral therapy during the pre-conception period to reduce HIV plasma viral load, which can reduce the risk of HIV transmission to their HIV-negative partner. **(II-3B)**

HIV-Positive Single Man or Male Same-Sex Couple

Recommendation

24. HIV-positive single men or men in same-sex relationships who have an HIV-negative or HIV-positive surrogate should be referred to a fertility specialist. **(III-A)**

HIV-Positive Man and HIV-Positive Woman

It is common for seroconcordant couples to attempt natural conception, especially if both partners have fully suppressed viral loads. Seroconcordant couples may wish to consider intrauterine insemination with sperm washing to reduce the potential risk of superinfection or transmission of drug-resistant strains of HIV between partners.

Recommendations

25. Timed natural conception is recommended for seroconcordant couples who are taking combination antiretroviral therapy and who have fully suppressed HIV plasma viral loads. **(II-3A)**

26. Seroconcordant couples should be counselled on the risks and benefits of timed natural conception (including HIV superinfection and transmission of drug-resistant strains of HIV). **(II-3A)**

27. If timed natural conception is unsuccessful, couples should be referred to a gynaecologist for consultation and then to a fertility specialist for a complete fertility work-up and appropriate treatment when necessary, including counselling on all assisted reproductive technologies. **(III-A)**

Infertility Investigations and Treatment

Historically, fertility clinics in Canada have been reluctant to provide fertility investigation and treatment to HIV-positive people. Fertility experts concur that this has likely been due to a lack of information about HIV and its successful treatment coupled with a concern that serving HIV-positive people could deter HIV-negative individuals from accessing services. In 2010, the American Association of Reproductive Medicine released a statement in which it endorsed the provision of fertility services to all HIV-positive individuals.

Recommendations

28. HIV-positive people should be counselled about fertility problems that occur in the general population, including genetic disorders and advancing maternal age. **(III-A)**

29. Infertility investigations and treatment should be offered to HIV-positive people if required. **(III-A)**

30. All decisions about combination antiretroviral therapy during the pre-conception period and during pregnancy should consider the health of the HIV-positive person and reduction of the risk of horizontal and vertical transmission of HIV. Decisions about combination antiretroviral therapy should be made in consultation with an HIV specialist. **(III-A)**

HIV Infection Control in Fertility Clinics

Recommendations

31. Fertility laboratories should follow Canadian Standards Association guidelines for infection control when handling HIV-positive materials. **(III-A)**

32. Potentially infectious materials should be stored in segregated containers and incubators to reduce the risk of HIV contamination. **(III-A)**

33. Bio-containment straws for specimen storage should be used to further reduce the risk of cross-contamination of samples. **(III-A)**

Definitions:

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†Adapted from the Classification of Recommendations criteria described in the Canadian Task Force on Preventive Health Care.

Clinical Algorithm(s)

None provided

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

- Assist human immunodeficiency virus (HIV)-positive individuals and couples with their fertility and pregnancy planning needs through the provision of clinical information and recommendations
- Reduce the risk of transmission of HIV between partners and transmission from mother to child
- Increase the rate of pregnancy planning in the HIV-positive population by providing safer options for conception
- Reducing the stigma associated with pregnancy and HIV
- Improving access to pregnancy planning and fertility services

Potential Harms

Not stated

Qualifying Statements

Qualifying Statements

This document reflects emerging clinical and scientific advances on the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed. Local institutions can dictate amendments to these opinions. They should be well documented if modified at the local level. None of these contents may be reproduced in any form without prior written permission of the Society of Obstetricians and Gynaecologists of Canada (SOGC).

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Foreign Language Translations

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Living with Illness

Staying Healthy


IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Loutfy MR, Margolese S, Money DM, Gysler M, Hamilton S, Yudin MH. Canadian HIV pregnancy planning guidelines. J Obstet Gynaecol Can 2012 Jun;34(6):575-90. [80 references] [PubMed](#) 

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2012 Jun

Guideline Developer(s)

Society of Obstetricians and Gynaecologists of Canada - Medical Specialty Society

Source(s) of Funding

Society of Obstetricians and Gynaecologists of Canada (SOGC), Women and HIV Research Program, Women's College Research Institute, Women's College Hospital, University of Toronto, Abbott Laboratories Canada, the Ontario HIV Treatment Network, the Canadian Institutes of Health Research, and the Canadian HIV Trials Network

Guideline Committee

The Canadian HIV Pregnancy Planning Guideline Development Team

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Financial Disclosures/Conflicts of Interest

Disclosure statements have been received from all members of the committee.

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) from the [Society of Obstetricians and Gynaecologists of Canada Web site](#) . Also available in French from the [SOGC Web site](#) .

Print copies: Available from the Society of Obstetricians and Gynaecologists of Canada (SOGC), La société des obstétriciens et gynécologues du Canada (SOGC) 780 promenade Echo Drive Ottawa, ON K1S 5R7 (Canada); Phone: 1-800-561-2416.

Availability of Companion Documents

None available

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on July 23, 2012. The information was verified by the guideline developer on August 15, 2012.

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