

The College of Physicians & Surgeons of Manitoba

Buprenorphine/naloxone Recommended Practice Manual

HIV & Hepatitis C in the Patient with Opioid Use Disorder: Prevention, Screening, & Management

GENERAL CONSIDERATIONS

Screening for All STBBIs

While this chapter will focus on the prevention, screening, and treatment of HIV and hepatitis C infection, it is important to note that OAT providers **MUST** offer comprehensive screening for Sexually Transmitted and Blood Borne Infections (STBBIs) to all patients with Opioid Use Disorder (OUD). This can occur around intake for OAT and periodically thereafter based on ongoing risk assessment.

Patients at significant and ongoing risk of infection should be offered STBBI screening every 6 to 12 months. Initial screening should include testing for HIV, hepatitis A, B, and C, as well as syphilis, chlamydia, and gonorrhea, including throat and rectal swabs if indicated. Repeat testing may be customized based on individual risk factors.

Testing for hepatitis A and B antibodies serves to assess a patient's immune status against these infections. If susceptible to these infections, patients on OAT should be offered immunization against hepatitis A and B to offer protection, as they may have additional risks for hepatic illness and impairment due to hepatitis C infection, alcohol, other substance use disorders, or another cause.

An Approach to STBBI Screening & Testing

It is important for OAT providers to normalize STBBI screening in the context of OAT care, and medical care in general. Explaining that this testing is **routinely offered to all patients** as part of a comprehensive OAT intake assessment, or periodic health examination, can decrease (perceived) stigma and increase patient engagement.

Many strategies can be used to increase patient uptake of STBBI testing:

- Include STBBI testing when other routine or clinically indicated lab work is ordered.
- Discuss the benefits of knowing one's status, including the fact that many infections can be cured, and that HIV can be treated.
- If testing is initially declined, OAT providers should explore with the patient why they are declining testing, including any fears, misinformation, or beliefs that may represent a barrier to testing.
- Non-judgmental and compassionate education, along with practical support around testing, can go a long way to increase uptake of testing.
- If testing is initially declined, revisit the issue with the patient after 3-6 months in treatment. The patient may be more open to STBBI screening once a stronger therapeutic relationship has been established with clinic staff, and the benefits of treatment are better established. Include a support person(s) in the discussion, if requested or desired by the patient.
- It is important to note that a patient declining STBBI testing once does not mean that the issue should not be revisited periodically. The OAT provider must document each time STBBI screening is offered, including the outcome of the conversation.
- If testing is accepted, provide the patient with the requisition and a list of laboratory locations and their hours. If testing can be offered at the OAT treatment site that is ideal, but not always possible. Explore barriers to accessing lab work, such as transport, ID, health card requirements, and provide practical support if possible.
- Remind patients who did not attend the lab for testing at follow-up appointments and replace lost requisitions whenever needed.
- Discuss when results will be available and offer an in-person or virtual appointment to discuss results as soon as possible, especially if the patient is anxious about results.
- Reassure the patient that a positive result will be addressed in a timely manner and that the OAT treatment team will support the patient by providing treatment, or a treatment referral, in a confidential manner.
- Offer assistance with lab work or other special investigations required by consultants and treatment services.

Providers are strongly encouraged to develop a tracking system for STBBI results for all patients on OAT. This will help ensure that an initial refusal of testing or delay in attending the lab does not result in unidentified or untreated HIV or hepatitis C in the longer term. Tracking systems can also be useful for patients with diagnosed HIV/hepatitis C who require regular blood work.

SPECIFIC CONSIDERATIONS

This manual section offers expertise and recommendations for the care of patients with OUD within the following contexts:

- Screening for HIV and hepatitis C infections
- Management of diagnosed HIV and hepatitis C
- Prevention of HIV and hepatitis C
- Special considerations for OAT, including buprenorphine and methadone.

Helpful resources are linked throughout and listed in Appendix G.

HUMAN IMMUNODEFICIENCY VIRUS (HIV)

HIV is a retrovirus that spreads through blood, genital or rectal fluids, and breast milk. The main modes of transmission are through sexual intercourse, sharing needles or drug use equipment, and perinatal transmission. Untreated HIV can weaken the immune system and lead to opportunistic infections and death. However, early detection and treatment can prevent transmission and lead to a life expectancy close to that of the general population.

Screening for HIV

It is important that healthcare providers know the HIV status of all patients under their care. Detailed recommendations regarding appropriate intervals for initial and repeat HIV testing are outlined below.

RECOMMENDATION: WHEN TO OFFER AN HIV TEST

To all patients who present for OAT intake.

Every year to all patients aged 12-70 years who have additional risks for HIV acquisition, including gay, bisexual, and other men who have sex with men (gbMSM), people who inject drugs (PWID), and people who have unprotected sex with multiple partners, as well as those who belong to populations with a higher burden of HIV infection.

Every five years to all patients aged 12-70 years.

Once for patients older than 70 years of age, if HIV status is not known¹.

Please see the Manitoba HIV Program [HIV Testing Recommendations](#) for more detailed information on screening, including their specific program [HIV Testing Guidelines](#).

Management of HIV

If HIV testing is positive, the OAT provider or another skilled member of the treatment team must notify the patient and provide counselling regarding the natural history of HIV infection, the importance of treatment, and the prevention of HIV transmission. The provider should also review with the patient the potential legal implications of non-disclosure of HIV status to sexual partners².

Patients who test positive for HIV must be offered referral to the Manitoba HIV Program for ongoing care. Visit the [MB HIV Program Healthcare Provider](#) site for details and referral information.

The initial workup for new diagnoses of HIV may be done by the diagnosing clinician or will be done by the HIV care provider. The British Columbia Centre for Excellence in HIV/AIDS provides detailed [Therapeutic Guidelines](#) for the baseline evaluation, monitoring, and ongoing care recommendations for people living with HIV.

HIV & Opioid Use Disorder

OAT increases retention in HIV care, antiretroviral uptake and adherence, and viral suppression in those with opioid use disorder and HIV^{3,4}.

OAT with buprenorphine or methadone should be offered to eligible individuals with OUD who have HIV.

Drug interactions between antiretroviral medications and OAT should be considered prior to initiating therapy or adjusting doses. Useful resources to help navigate drug interactions include:

- [Liverpool HIV Drug Interaction Checker](#) (free online).
- MB HIV Program pharmacists are available for consultation for persons living with HIV in MB by calling 204-787-4005 for Health Sciences Centre (HSC), or 204-940-6022 for Nine Circles.

HIV & Patients on OAT

Patients who are newly diagnosed with HIV may benefit from more frequent visits for emotional and practical support around living with chronic illness, including their OUD and the HIV infection. OAT providers are in an excellent position to support patients while they adjust to their diagnosis, the burden of treatment, and the impact it has on their lives and significant relationships.

Where patients with HIV experience barriers to accessing specialty care for the management of HIV, the relationship with the OAT provider should also be leveraged to facilitate access to care and treatment. For patients not connecting to HIV care, OAT providers should consider connecting with the Manitoba HIV Program to reach a provider who can assist in creating a management plan (call 204-940-6089 or 1-866-449-0165).

Manitoba HIV specialists and pharmacists are also available for non-urgent management advice through eConsult MB: email to register at servicedesk@sharedhealthmb.ca or call 204-940-8500 or 1-866-999-9698. Or contact HSC paging for urgent concerns (call 204-787-2071).

Immunizations for People Living with HIV

Individuals living with HIV have additional immunization recommendations which can be found in the Canadian Immunization Guide: [Part 3, Vaccination of Specific Populations](#). See the [HIV Infection](#) section and [Table 5: Vaccination of HIV-Infected Persons](#).

Prevention of HIV

Providers should counsel at-risk patients regarding prevention of HIV, this includes:

- Routine testing for HIV, HCV, and other STBBIs. This is a vital component of prevention. **Early detection and treatment can prevent transmission.** Regular screening and treatment of STBBIs is essential, as **untreated STBBIs are associated with increased risk of acquisition or transmission of HIV.**
- Consistent and correct use of internal and external condoms.
- Harm reduction for PWID, including access to new needles, syringes, and other drug use equipment, as well as OAT, if indicated.
- Pre-exposure prophylaxis (PrEP), which is the use of medications for the prevention of HIV in HIV-negative individuals who are at high-risk of acquiring HIV.
- Post exposure prophylaxis (PEP), which is the use of antiretroviral medications in an HIV-negative individual who has had a potential exposure to HIV. PEP must be initiated within 72 hours of potential HIV exposure. Patients should be referred to urgent care or emergency if they meet the criteria for PEP.
- Antiretroviral therapy for HIV-positive patients to prevent transmission of the virus.
- Prevention of mother to child transmission including contraception counselling, routine HIV testing for individuals who are of childbearing years and HIV negative, and antiretroviral therapy for pregnant individuals who are HIV positive⁵.

The Manitoba HIV Program [HIV Guidelines](#) page provides further information regarding prevention, including their [HIV Prevention Guidelines](#) and other Canadian resources.

HEPATITIS C VIRUS (HCV)

Hepatitis C is an RNA flavivirus that infects the liver. It is spread when the blood of a person with hepatitis C comes in contact with the blood of another person. The main mode of transmission in Canada is through sharing needles, drug use equipment, and tattoo or body piercing equipment⁶. Hepatitis C can be transmitted through sharing of razors, toothbrushes, or unsterilized medical equipment, condomless sex, blood transfusions in a country where the blood supply is not routinely screened for HCV, and through perinatal transmission.

About one quarter of people who become infected will clear hepatitis C, while three quarters will develop a chronic infection⁷. Chronic hepatitis C infection can lead to cirrhosis, liver failure, or hepatocellular carcinoma if left untreated. **However, current treatments are available for the treatment of hepatitis C, and these are highly effective and well tolerated.**

Screening for Hepatitis C

Hepatitis C screening is recommended for all individuals born between 1945 - 1975, as well as additional risk-based screening in individuals at increased risk of infection, as outlined below.

RECOMMENDATION: WHEN TO SCREEN FOR HEPATITIS C

Commonly encountered risk factors that should prompt screening in the context of OAT include:

- Present or past injection drug use
- History of incarceration
- History of sexual contact or sharing personal care items with someone who has a hepatitis C infection
- Those with a HIV infection
- Those with an elevated alanine aminotransferase (ALT)

Additional risk factors that are an indication for screening include:

- Chronic hemodialysis
- Having received healthcare or personal services where there is a lack of infection prevention and control practices
- Originating or living in a region with a hepatitis C prevalence > 3%
- Having received blood products or organ transplantation before 1992 in Canada
- Infants born to a mother who has hepatitis C⁸

Re-screening for hepatitis C should be guided by risk activity. Re-screening should be done at least annually in those who have ongoing risk factors for acquisition of hepatitis C⁸.

Screening for hepatitis C should involve testing for HCV antibodies for those with no past history of infection. If HCV antibodies are positive, a HCV RNA should be ordered to differentiate an active infection from a resolved infection. For those with a history of resolved hepatitis C, HCV RNA should be the initial screening test.

Management of Hepatitis C

If hepatitis C testing is positive the provider should notify the patient, counsel regarding the natural history, the availability of treatment, and prevention of transmission. It is important to emphasize that current hepatitis C treatment is effective and typically very well tolerated.

Patients may have had past experience with interferon/ribavirin treatment or know someone who was treated with an interferon/ribavirin regimen. These older treatments were poorly tolerated and less effective in curing hepatitis C. It is worthwhile to highlight that these medications are not routinely used in hepatitis C treatment anymore.

After diagnosis, an initial assessment may include:

- A documented history and physical examination to assess for signs and symptoms of advanced liver disease.
- A documented assessment of factors that influence disease progression such as alcohol intake, obesity, and co-infections.
- Baseline laboratory testing (liver enzymes, liver function, CBC, creatinine, testing for other STBBIs, HCV genotype and RNA)
- A liver ultrasound.
- An assessment of the stage of fibrosis.

For further information on the baseline assessment and management of hepatitis C, see Canadian Medical Association Journal article, [The management of chronic hepatitis C: 2018 guideline update from the Canadian Association for the Study of the Liver](#).

Treatment for Hepatitis C

All individuals with chronic hepatitis C should be considered for treatment. Neither active injection drug use nor OAT are contraindications to treatment of hepatitis C. Adherence to treatment and efficacy of treatment have been demonstrated among those who inject drugs, with low rates of reinfection^{9, 10, 11}.

The ideal treatment setting for this population is multidisciplinary, with access to management of social and psychiatric comorbidities, and access to harm reduction services to reduce the risk of reinfection. **OAT and supply distribution in concert with hepatitis C treatment has significant potential to reduce the prevalence of hepatitis C among PWID**^{12, 13, 14, 15}.

Patients may be referred for hepatitis C treatment in Manitoba through:

- The Viral Hepatitis Investigative Unit, Health Sciences Centre, call 204-787-3630, and/or fax 204-787-7086.
- Mount Carmel Clinic, call 204-589-9428 and/or fax: 204-582-6006.
- eConsult MB Hepatology – Hepatitis C Treatment advice: email to register at servicedesk@sharedhealthmb.ca or call 204-940-8500 or 1-866-999-9698.

Hepatitis C & Patients on OAT

OAT providers often have a unique relationship with their patients that can be leveraged to assist with the monitoring of hepatitis C and facilitate access to treatment.

OAT providers should consider having material available in the office to help inform patients regarding prevention, testing, monitoring, and treatment of hepatitis C. For example, the [CATIE](#) website contains valuable resources for patient education and support, available at [Hepatitis C Basics](#).

Where patients with hepatitis C experience barriers to accessing specialty care for the management of hepatitis C, OAT providers should:

- Offer routine monitoring of liver enzymes, liver function tests, a complete blood count, and
- Calculate APRI and FIB-4 scores to assess the degree of fibrosis, which is necessary to establish an appropriate management plan. Visit Hepatitis C Online to access an [AST to Platelet Ratio Index \(APRI\)](#) calculator and [Fibrosis-4 \(FIB-4\)](#) calculator.

Hepatitis C management advice outside of an in-person consultation may be accessed through eConsult MB's hepatology service, as listed above.

Drug-drug interactions with hepatitis C medications should be considered. A useful resource for checking drug interactions is the [Liverpool Hepatitis Drug Interaction Checker](#) available online.

Immunizations for People Living with Hepatitis C

Individuals with hepatitis C who are susceptible to hepatitis A and B should be offered immunization for hepatitis A and B.

Prevention of Hepatitis C

Providers should counsel at-risk patients regarding prevention of hepatitis C, which includes:

- Harm reduction for PWID, including access to new needles, syringes, and other drug use equipment, as well as OAT, if indicated.

- Providing education to patients regarding safer sex practices, not sharing personal items such as razors or toothbrushes, and ensuring single-use needles and proper sterilization for procedures such as tattoos and piercings.
- Routine testing for HIV, HCV, and other STBBIs. This is an important component of prevention. **Early detection and treatment can prevent transmission.** Regular screening for STBBIs is recommended as risk of transmission of HCV could be increased in the setting of untreated STBBIs^{16, 17}.

IN SUMMARY

The OAT provider and treatment team, including pharmacists, can play a key role in the prevention, screening, and management of both HIV and hepatitis C. The unique relationship and comprehensive care of OAT can be an effective avenue to educate patients about the risks of transmission, to offer timely screening, to provide harm reduction supplies, and to support patients through new diagnoses and treatment, in collaboration with experts.

References

1. Manitoba HIV Program HIV Testing Guidelines. Manitoba HIV Program. 2021. <https://mbhiv.ca/wp-content/uploads/2021/11/MB-HIV-Pgm-Testing-Guidelines-FINAL-1.pdf>
2. Justice Canada's Report on the Criminal Justice System's Response to HIV Non-Disclosure. December 2017. https://www.canada.ca/en/department-justice/news/2017/12/fact_sheet_hiv_non-disclosureandthecriminallaw.html. Accessed March 26, 2022.
3. Kamarulzaman A, Altice FL. Challenges in managing HIV in people who use drugs. *Curr Opin Infect Dis.* 2015;28(1):10-16. doi:10.1097/QCO.000000000000125
4. Low AJ, Mburu G, Welton NJ, et al. Impact of Opioid Substitution Therapy on Antiretroviral Therapy Outcomes: A Systematic Review and Meta-Analysis. *Clin Infect Dis.* 2016;63(8):1094-1104. doi:10.1093/cid/ciw416
5. Manitoba HIV Program HIV Prevention Guidelines. Manitoba HIV Program. 2021. <https://mbhiv.ca/healthcare-providers/guidelines/>
6. The epidemiology of hepatitis C in Canada. CATIE. https://www.catie.ca/the-epidemiology-of-hepatitis-c-in-canada-0?utm_source=grant&utm_medium=ad&utm_campaign=cpc&utm_content=en. Accessed March 11, 2022.
7. Intro to hepatitis C. CATIE. 2019. <https://www.catie.ca/hepatitis-c-an-in-depth-guide/intro-to-hepatitis-c>. Accessed March 11, 2022.

8. Shah H, Bilodeau M, Burak KW, Cooper C, Klein M, Ramji A, Smyth D, Feld JJ. The management of chronic hepatitis C: 2018 guideline update from the Canadian Association for the Study of the Liver. *CMAJ*. 2018;190(22): E677-E687. DOI: <https://doi.org/10.1503/cmaj.170453>
9. Aspinall EJ, Corson S, Doyle JS, et al. Treatment of hepatitis C virus infection among people who are actively injecting drugs: a systematic review and meta-analysis. *Clin Infect Dis*. 2013;57 Suppl 2:S80-S89. doi:10.1093/cid/cit306
10. Grebely J, Matthews GV, Hellard M, et al. Adherence to treatment for recently acquired hepatitis C virus (HCV) infection among injecting drug users. *J Hepatol*. 2011;55(1):76-85. doi:10.1016/j.jhep.2010.10.033
11. Dore GJ, Altice F, Litwin AH, et al. Elbasvir-Grazoprevir to Treat Hepatitis C Virus Infection in Persons Receiving Opioid Agonist Therapy: A Randomized Trial. *Ann Intern Med*. 2016;165(9):625-634. doi:10.7326/M16-0816
12. Martin NK, Vickerman P, Grebely J, et al. Hepatitis C virus treatment for prevention among people who inject drugs: Modeling treatment scale-up in the age of direct-acting antivirals. *Hepatology*. 2013;58(5):1598-1609. doi:10.1002/hep.26431
13. Barbosa C, Fraser H, Hoerger TJ, et al. Cost-effectiveness of scaling-up HCV prevention and treatment in the United States for people who inject drugs. *Addiction*. 2019;114(12):2267-2278. doi:10.1111/add.14731
14. Fraser H, Zibbell J, Hoerger T, et al. Scaling-up HCV prevention and treatment interventions in rural United States-model projections for tackling an increasing epidemic. *Addiction*. 2018;113(1):173-182. doi:10.1111/add.13948
15. Falade-Nwulia O, Irvin R, Merkow A, et al. Barriers and facilitators of hepatitis C treatment uptake among people who inject drugs enrolled in opioid treatment programs in Baltimore. *J Subst Abuse Treat*. 2019;100:45-51. doi:10.1016/j.jsat.2019.01.021
16. Lissen E, Alter HJ, Abad MA, et al. Hepatitis C virus infection among sexually promiscuous groups and the heterosexual partners of hepatitis C virus infected index cases. *Eur J Clin Microbiol Infect Dis*. 1993;12(11):827-831. doi:10.1007/BF02000402
17. Tohme RA, Holmberg SD. Is sexual contact a major mode of hepatitis C virus transmission? *Hepatology*. 2010;52(4):1497-1505. doi:10.1002/hep.23808

Appendix G

ADDITIONAL RESOURCES FOR HIV & HEPATITIS C

Manitoba HIV Program

Homepage	https://mbhiv.ca/
For Healthcare Providers	https://mbhiv.ca/healthcare-providers/
HIV Testing Guidelines	https://mbhiv.ca/healthcare-providers/guidelines/
HIV Prevention Guidelines	https://mbhiv.ca/healthcare-providers/guidelines/

Manitoba Health, Seniors and Active Living | Public Health Branch

Post-exposure Prophylaxis for HIV, HBV and HCV: Integrated protocol for managing exposures to blood and body fluids in Manitoba.

https://www.gov.mb.ca/health/publichealth/cdc/protocol/hiv_postexp.pdf

British Columbia Centre for Excellence in HIV/AIDS

Therapeutic Guidelines	http://bccfe.ca/therapeutic-guidelines
------------------------	---

University of Liverpool

HIV Drug Interaction Checker	https://www.hiv-druginteractions.org/
Hepatitis Drug Interaction Checker	https://www.hep-druginteractions.org/checker

Canadian Medical Association Journal

The management of chronic hepatitis C: 2018 guideline update from the Canadian Association for the Study of the Liver <https://www.cmaj.ca/content/190/22/E677>

CATIE

Homepage	https://www.catie.ca/
HIV Basics	https://www.catie.ca/essentials/hiv-basics
Hepatitis C Basics	https://www.catie.ca/essentials/hepatitis-c-basics