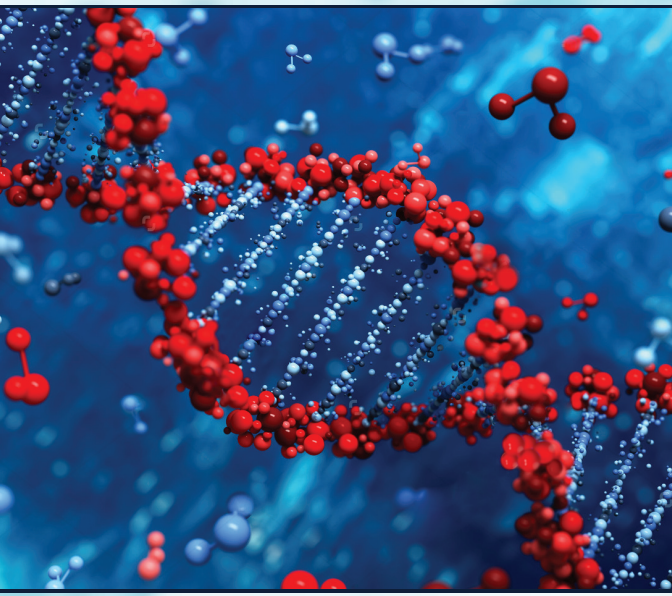
CLINIC MANAGEMENT FOR DIAGNOSING & TREATING HIV



AN ONLINE REFERENCE

TESTING

3C'S OF TESTING

1. CONFIDENTIALITY

2. COUNSELLING *dependant on the setting*

3. CONSENT *informed and voluntary*
Verbal consent must be obtained following a minimum of counselling which should include:
- Benefits of testing
- Right to refuse
- Availability of support, assistance, care and effective treatments

HIV IS REPORTABLE TO THE REGIONAL MEDICAL HEALTH OFFICER who will assist with partner-care/contact investigation tracing and with responsibilities under The Public Health Act (search at www.saskatchewan.ca) regarding disclosure to partners.

Consider testing every five years in adults.

Testing may be repeated more frequently based on risk factors.

TESTING OPPORTUNITIES INCLUDE

- All patients aged 13 to 70 receiving primary or emergency health care who do not know their HIV status
- All persons who are sexually active with multiple/successive long-term partners and have not had an HIV test in the last 12 months
- All patients who request an HIV test
- All pregnant women. HIV screening should be included in the routine panel of prenatal screening for all pregnant women. (SOGC 2006) Repeat screening in the third trimester may be indicated based on clinical assessment and labour and delivery guidelines. (SOGC 2006) (MMWR 2006)
- All patients assessed with current or past history of illicit drug use
- All patients assessed in an STI clinic or any health care setting for an STI or Hepatitis B or C
- All persons from endemic countries
- All patients with Tuberculosis
- All patients showing signs and symptoms that may be consistent with HIV related disease

More information can be found at www.skhiv.ca

TESTING (CONTINUED)

NORMALIZE THE TEST | OFFER TO EVERYONE

https://www.skhiv.ca

DIAGNOSIS: WHAT CONSTITUTES A POSITIVE RESULT FOR HIV?

Geenius HIV 1/2 confirmatory assay

SDCL uses a 4th generation combined HIV antigen/antibody test with near 100% sensitivity confirmed with the Geenius HIV1/2. When confirmatory testing is positive, the result is reported to the ordering physician and the regional medical health officer.

DELIVERY OF THE DIAGNOSIS

1. Done by the ordering physician in person - never by phone or email. You may want to ask local Public Health for assistance.
2. Public Health can assist with locating the client, home visits, and providing ongoing support to the client.
3. If the serology is negative, counsel your client re: next test based on risk. When counselling, keep the "window period of diagnosis" (the time from infection to the time when diagnostic tests become positive for HIV) in mind. Window period of fourth generation HIV test is 16-18 days (BCMJ Aug. 2010). 99% of individuals will develop antibodies by 12 weeks.
4. Ensure your client is referred to an HIV care provider for continued care. *(You may also refer clients to their local community-based organization/ AIDS organization). Provincial list can be found at www.skhiv.ca.*
5. Ensure all clients are aware of Harm Reduction Strategies such as needle exchange *(locations found at www.skhiv.ca)* and condom use.

INITIAL EVALUATION

HIV screen can be found on SDCL Immunology requisition or the community lab requisition

RESOURCES

- Up to Date: Primary care of HIV-infected individuals
- Department of Health and Human Services
- www.cfenet.ubc.ca/sites/default/files/uploads/primary-care-guidelines/primary-care-guidelines_015-09-15.pdf

GUIDELINES

Prompt and efficient referral for assessment.

Obtain all contact information: address, phone numbers, contact of family/friends.

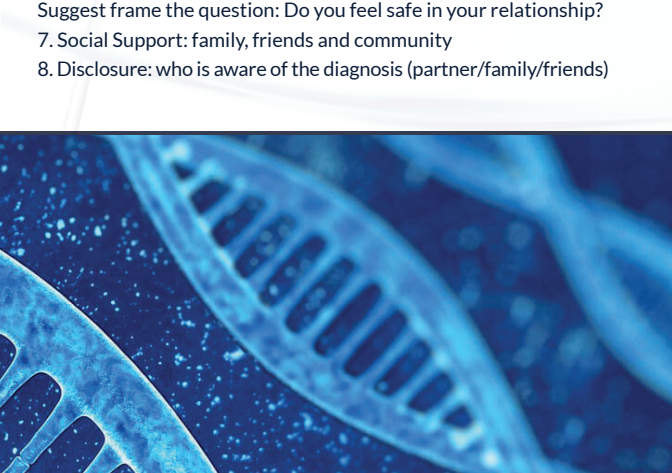
Goal of Initial Evaluation: To determine risk, transmission and how HIV has affected your client.

Provide clients with a culturally safe environment.

Ensure clients you will protect their privacy and their confidentiality.

SOCIAL HISTORY: Key Elements

1. Housing: on reserve, homeless (current or recent)
2. Food: source, reliable
3. Income: employment, social assistance, pension or other
4. Substance Use: Has current/past history of alcohol, injection drug use, marijuana or tobacco
5. Mental Health: previous history
6. Partner History: partner(s) tested or known to be HIV+, plans for conception, history of intimate partner violence (current/past). Suggest frame the question: Do you feel safe in your relationship?
7. Social Support: family, friends and community
8. Disclosure: who is aware of the diagnosis (partner/family/friends)



INITIAL EVALUATION (CONTINUED)

MEDICAL HISTORY

Obtain a current and past medical history.

Medication history: previous ART history, current medications, complementary/traditional medicine, allergies.

Client with a previous diagnosis of HIV: diagnosis date and location. A complete ART history should be obtained. With previous clinics and care providers, obtain written consent to obtain medical records.

Most recent dental and eye exam.

Sexual history/behaviour: partners, practices, protection from STI's, prevention from pregnancy *(www.cdc.gov/std/treatment/sexualhistory.pdf)*.

PHYSICAL EXAM

- Vital Signs: height, weight
- General: wasting, lipodystrophy, assessment of frailty and ambulatory ability
- Skin: seborrhic dermatitis, ecchymosis, pupura, petechiae, Kaposi's sarcoma, herpes simplex or zoster, psoriasis, molluscum contagiosum, onychomycosis, cutaneous fungal infections
- Lymph Nodes: generalized or localized lymphadenopathy
- Eyes: hemorrhages, pallor, icterus, cotton wool spots, retinal exudate
- Oropharynx: oral hairy leukoplakia, candidiasis, apthous ulcers, gingivitis, periodontal disease, Kaposi's Sarcoma, tonsillar or parotid enlargement
- Cardiovascular: peripheral pulses, edema
- Chest/Breast: nodules or nipple discharge
- Abdomen: hepatomegaly, splenomegaly, masses or tenderness
- GU: ulcers, warts, chancres, rashes, abnormal gynecological exam, discharge
- Anorectal: ulcers, warts, fissures, internal or external hemorrhoids, masses or Kaposi's Sarcoma
- Neuro/psychiatric: depression, mania, anxiety, signs of personality disorder, difficulty with memory, concentration or attention, signs of dementia, speech problems, gait abnormalities, focal deficits, abnormal reflexes

NOTE: If an opportunistic infection is suspected, visit www.cfenet.ubc.ca/therapeutic-guidelines/opportunistic-infection

BASELINE LABS

Baseline and continual labs should be as per DHHS guidelines.
https://aidsinfo.nih.gov/guidelines/htmltables/1/5291

	FREQUENCY	REASON
HIV serology	Once confirmed no need to repeat	Confirms diagnosis
CD4 Absolute and %	q3-6 months during first 2 years of ART or if viremia develops while patient on ART or CD4 count <300 cells/mm3 q12 months after 2 years on ART with Consistently Suppressed Viral Load: CD4 Count 300–500 cells/mm3, and if CD4 Count >500 cells/mm3: CD4 monitoring is optional	Monitor treatment response
Fasting Glucose and Lipids	Refer to Canadian guidelines	
HIV viral load	• Baseline q 3-6 months • At initiation of tx and tx failure and 4 weeks after start/change or blip	Monitor treatment response
Genotype (resistance testing)	Baseline-repeat with virologic failure	Early infection to pick up transmitted resistance. Later on treatment failure to guide ARV regimen
HLA B5701	Baseline only	If positive avoid use of Abacavir due to risk of life-threatening hypersensitivity
CBC	Baseline - q 3-6 months	Monitor toxicity, check for cytopenia
Liver function /AST	Baseline - q 3-6 months	Monitor toxicity, assess liver function
Glucose lipid profile	As per guidelines	
Toxoplamsa IgG	Baseline	If positive prophylaxis if CD4<100
VZV IgG	Baseline	If Ab is negative – pt exposed VZVIG within 96 hrs
CMV IgG	Baseline	
Urinalysis	Baseline /annually	Renal function
Microalbumin: Creatinine Ratio	Baseline /annually	Renal function
CO-INFECTIONS		
Syphilis serology	Annually - q 3-6 months based on risk	If positive treat
Chlamydia /gonorrhea (urine)	Baseline / annually based on risk	If positive treat
Trichomonas (vaginal swab)	Baseline	If positive treat
Hep A IgG	Baseline/ post Immunization	Check for immunity
Hep B surface antigen/ antibody/antibody to Hep B core antigen	Baseline/ repeat based on initial result	Check for Hep B infection/immunity
Hep C antibody/ antigen infection	Baseline/annually if previous result negative	Check for HCV

NOTE: In case of positive Hepatitis C antigen/antibody result ensure client referral and linkage to specialist for assessment and possible treatment of Hepatitis C.

HCV TESTING AND LINKAGE TO CARE

The Canadian Task Force on Preventive Health Care recommends testing may be considered for the following persons who are at elevated risk for Hepatitis C:

- Current or past history of injection drug use
- Have been incarcerated
- Born, travelled or resided in HCV-endemic countries
- Received health care where there is a lack of universal precautions
- Recipients of blood transfusions, blood products, or an organ transplant before 1992
- Hemodialysis patients
- Individuals who have had needle stick injuries
- Other risks sometimes associated with HCV exposure, such as high-risk sexual behaviours, homelessness, intranasal and inhalation drug use, tattooing, body piercing, or sharing sharp instruments or personal hygiene materials with someone who is HCV positive
- Anyone with clinical clues suspicious for HCV infection (and above risk factors)
- Consider HIV infection
- Further information on Hepatitis C testing can be found at https://canadiantaskforce.ca/hepatitis-c-clinician-summary/

It is important to note that risk within these categories varies. Some groups are at very high risk (e.g., injection drug users) and others have a lower risk (e.g., those who have travelled to HCV endemic countries). For more information on groups at elevated risk, please see CFPC/PHAC's resource on Primary Care Management of Chronic Hepatitis C: *http://www.cfpc.ca/uploadedFiles/Resources/Resource_Items/HEP_C_Guide_eng_2.pdf*

Annual HCV testing is recommended for persons who inject drugs and for HIV seropositive men who have unprotected sex with men. Periodic testing should be offered to other persons with ongoing risk factors for exposure to HCV.

Follow-up: An anti-HCV test is recommended for HCV testing, and if the result is positive, current infection should be confirmed by a sensitive HCV RNA test (check SDCL Testing Compendium).

Among persons with a negative anti-HCV test who are suspected of having liver disease, testing for HCV RNA or follow-up testing for HCV antibody is recommended if exposure to HCV occurred within the past six months. Testing for HCV RNA can also be considered with persons who are immunocompromised.

Testing for HCV genotype is recommended to guide selection of the most appropriate antiviral regimen.

Counseling those with active HCV infection: Education and interventions aimed at reducing progression of liver disease and preventing transmission of HCV.

1. Abstinence from alcohol, including interventions as appropriate
2. Evaluation for other conditions including HBV and HIV infections
3. Vaccination against Hepatitis A and Hepatitis B
4. Vaccination against pneumococcal infection for all patients with cirrhosis
5. All persons with HCV infection should be provided education on how to avoid HCV transmission to others.

ALL PERSONS WITH CURRENT ACTIVE HCV INFECTION SHOULD BE LINKED TO A PRACTITIONER WHO IS PREPARED TO PROVIDE COMPREHENSIVE MANAGEMENT.

MEDICATION

Goal of Treatment: To improve quality of life, prolong life, restore/preserve immunologic function, maximally and durably suppress the HIV viral load.

A goal is to minimize risk of HIV transmission.

Antiretroviral Therapy (ART) is now recommended for ALL HIV infected individuals regardless of immune status or other laboratory parameters or social dynamics (e.g. sero-discordant relationship). Initiate therapy as soon as patient is ready.

The initial evaluation is the most important time to educate the patient regarding ART as well as to educate and evaluate readiness for initiation of ART.

A regimen consists of 3 active drugs based on the client's genotype. (Select 2 drug regimens may be recommended in the future) (2NRTIs plus 1 PI or 1 INSTI or 1NNRTI) *https://aidsinfo.nih.gov/guidelines*

http://hivclinic.ca/wp-content/uploads/2014/09/Antiretroviral-Assessment-CDN-Web_2-secured.pdf

IMPORTANT – DON'T STOP ONCE YOU START!

Before starting ensure baseline labs have been drawn and reviewed.

ADHERENCE

Suboptimal adherence (<90% of doses taken) is the #1 cause of treatment failure

Strict adherence is crucial when clients are initiating or changing therapy

Barriers: frequency /timing, sizes of pills, food restrictions, side effects, unstable housing, stigma, lost medications, food insecurity

Counsel about the link between adherence and drug resistance

Visit Frequency: Follow 1-2 weeks after medication start or change then every 2-4 weeks - once client is stable and HIV viral load is undetectable q 3-4 months

Monitoring clients on ART: Check medication profile (PIP) and follow pharmacy records closely. Collaborate with local pharmacist to ensure optimal adherence and tolerability of medication

For more detailed information see: DHHS guidelines at *https://aidsinfo.nih.gov/guidelines*

App: *HIV Clinic.ca*

Drug Resistance refer to: Stanford Database: *https://hivdb.stanford.edu/*

Drug Interactions: HIV InSite

http://www.uptodate.com/contents/when-to-initiate-antiretroviral-therapy-in-hiv-infected-patients

https://aidsinfo.nih.gov/guidelines/html/1/adult-and-adolescent-treatment-guidelines/0/

PROPHYLAXIS FOR OPPORTUNISTIC INFECTIONS

OI	Implication	Medication	Dose	Discontinuation
PJP	CD4<200	TMP-SMX 80/400:	1 tab po daily	CD4 >200 for 3 months or more
Toxoplasmosis	CD4<100 positive serology (IgG)	TMP-SMX 160/800	1 tab po daily	CD4>200 for 3 months or more
MAC	CD4<50	Azithromycin (Clarithromycin)	1250mg weekly	CD4>100 for 3 months or more and restarted if CD4 again drops below 50

If your client has allergies, there are alternative options for prophylaxis found at: *http://www.cfenet.ubc.ca/therapeutic-guidelines/opportunistic-infection*

www.rxfiles.ca/rxfiles/modules/druginfoindex/druginfo.aspx

MONITORING AND ROUTINE HEALTH MAINTENANCE

Contraception counselling – all forms of contraception are acceptable. Plans for conception: *http://apps.who.int/iris/bitstream/10665/128537/1/WHO_RHR_14.24_eng.pdf* (referral if necessary)

https://www.skhiv.ca

Mammogram - for women > 50 (if 40 - 49 individualized risk assessment) q 2 years

Cervical Cancer - cervical pap test performed x2 in the first year after diagnosis and then annually if normal. If abnormal refer to gynecologist for assessment: Public Health Agency of Canada; 2006. Available from: *http://www.cfenet.ubc.ca/sites/default/files/uploads/primary-care-guidelines/primary-care-guidelines_015-09-15.pdf*

Screen for anal displasia, refer as needed

Routine dental cleaning and exams annually

TST (tuberculin skin test) should be planted and read on entry to care and annually (consult with local Public Health to facilitate the test)
Chest X-ray at baseline
Alternative option: IGRA* serology if result is positive or TST has any reaction refer to TB Prevention Control (see contact information in Vital Links)

Eye exam (dilated) consider every 6 months if CD4 is < 50

Annual lab work: syphilis serology, urine for GC and chlamydia, Hepatitis B & C serology.

Fasting glucose/HgbA1C and fasting lipids per Canadian guidelines *www.cfp.ca/content/61/10/857.full*

Screening for depression and substance abuse –annually and as needed *Refer to: http://www.ubcmood.ca/sad/PHQ-9.pdf*

BMD - in post-menopausal women and men over 50 years of age

Patient Education: regularly address and as needed include sexual behaviour, alcohol and drug counselling, dietary teaching, weight reduction and smoking cessation.

PRIMARY HEALTH CARE SHOULD INCLUDE:

- Managing other chronic diseases as necessary
- Follow-up appointments: Q 3 months and prn if stable and at the discretion of the primary care provider. Refer clients for HIV Case Management as necessary. Contact your local HIV Strategy Co-ordinator. *Contact info found at www.skhiv.ca*
- Identification and utilization of available supports: social/financial/mental health / addictions / CBOs in your community

*IGRA - interferon gamma release assay. For more information contact Selective Test Centre, Royal University Hospital - 306.655.2520

VITAL LINKS

SASKATCHEWAN HIV COLLABORATIVE WEBSITE
https://www.skhiv.ca

IDSA GUIDELINES POCKET REFERENCE
http://eguideline.guidelinecentral.com/i/282352-hiv-primary-care

UP TO DATE
https://www.uptodate.com/contents/initial-treatment-of-hiv-beyond-the-basics

SASKATCHEWAN IMMUNIZATION MANUAL
https://www.ehealthsask.ca/services/Manuals/Documents/sim-chapter7.pdf

HIV TREATMENT GUIDELINES
https://aidsinfo.nih.gov/guidelines

SDCL COMPENDIUM OF TESTS
http://sdcl-testviewer.ehealthsask.ca

CLINIC INFORMATION

Infectious Disease Clinic
Regina General Hospital
306.766.3915

Positive Living Program/ Saskatoon
306.655.1000

Access Place/ Prince Albert
306.765.6544

Westside Clinic/ Saskatoon
306.664.4310

TB Prevention Control
1.866.780.6482
306.655.1740

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