

Moving Towards Hep C-Free BC: Models of Care for Hepatitis in BC

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HCV Model of Care for Women

NP led, supported by ID-MDs & Pharmacists model
Oak Tree Clinic, BC Women's Hospital, PHSA:

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Oak Tree Team**



Oak Tree Clinic, BC Women's Hospital

The Provincial Clinic for Women & Children living with HIV in BC (1994)

- Multi-disciplinary Team:**
- Adult and Pediatric ID Specialists
 - Obstetrics and Gynecology
 - Psychiatry
 - Nurses and Nurse Practitioner
 - Addictions and Trauma Counselor
 - Pharmacists
 - Social workers & Outreach SW
 - Dietician
 - Peer support

- Women and Family-centered Care**
- HIV+ women
 - HIV+ and HIV-exposed children
 - historically-HIV+ partners
 - HCV (since 2015)
 - Pregnancy and pre-conception counseling
 - Research, advocacy and education

Telehealth for rural clients **Texting with vulnerable clients**



Care for all ages



Why was the HCV program developed?



- Women=25% of HCV infected people in BC
- Overlap with people living with HIV (PLWH)
- Many lack GPs, face stigma & discrimination: **refused** HCV Tx elsewhere
- Motivation & expertise in house
- Less data on DAAs in women
- **We made a strategic decision to join the provincial efforts to cure HCV**

Challenges in establishing this model of care

System related:

- **Lack of knowledge** of providers, related to DAAs in 2015
- **Lack of data**- how many of our clients are HCV+, candidates for TX?
- **Lack of additional resources/funding**
- **Bureaucratic hurdles** such as DAAs approval processes (few pathways, coverage)
- **Prioritising who to treat**, can't treat all at once

Patients related:

- **Patients awareness & readiness**
- **Engaging hard to reach people** -HCV may not be their priority
- **Risk of re-infection** (ongoing substance use, partners)
- **Drug interactions** (polypharmacy in aging)
- **For women:**
Lack of data on DAAs effects on fetus, need for contraception while on HCV TX.
- **Tolerability/compliance for women?/** (Gender difference?)
(In HIV women less adherent to ART than men in North America)

Steps we took to initiate HCV therapy

- Identified gap in HCV care for women
- Reviewed all 700 pt charts to get internal HCV cascade of care –the first in BC/Canada for co-infected women (**39% of our clients are HCV+**)
- Consulted with our co-infected clients → patients voice
- Assessed capacity within the organization
- Improved HCV expertise with in-house education
- Reviewed literature re: various models of care, consulted with other clinics providing HCV treatment to similar patient populations
→ Decided on **NP led model of care**

The Hepatitis C Cascade of Care in a Women-Centred HIV Clinic in Canada

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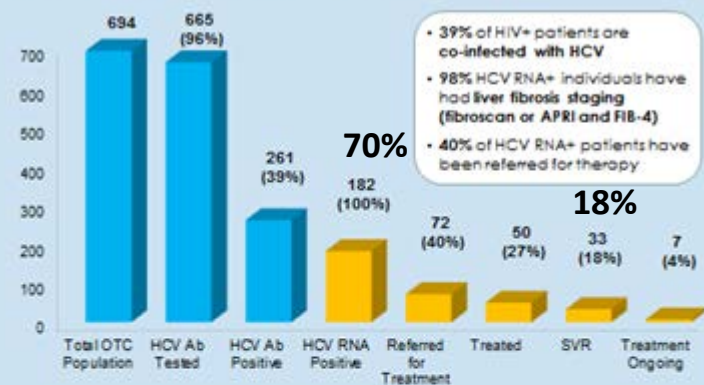
Results

Oak Tree Clinic Population Demographics

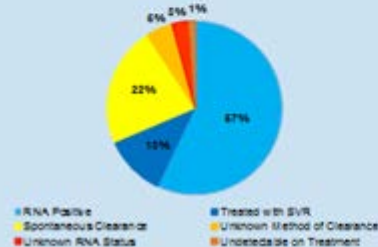
Characteristics	Value
Age (Mean ± SD, n=694)	42.7 ± 10.9 years
Female Sex (n=694)	565 (81%)
Median CD4 count (n=694)	557 cells/μL (IQR 350-720)
Undetectable HIV viral load (n=694)	526 (76%)
Ethnicity (n=229)	
Aboriginal	64 (28%)
Caucasian	93 (41%)
African/Caribbean/Black	38 (17%)
Asian	17 (7%)
Other/missing	17 (7%)
Active IDU (n=229)	85 (37%)
Lifetime IDU (n=229)	129 (56%)
Current Alcohol Use (n=229)	117 (51%)

Results

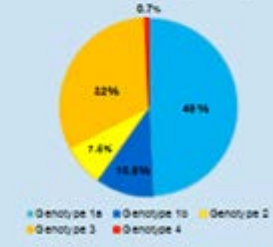
Oak Tree Clinic Hepatitis C Cascade of Care



HCV RNA Status (n=261)



HCV Genotypes (n=132)



Of currently HCV RNA+ patients, 52% (77/149) had APRI or FIB-4 scores corresponding to ≥F2 fibrosis and 17% (26/149) had evidence of F4 fibrosis / cirrhosis

Oak Tree's HCV model of care

- **Setting:** BC Women's Hospital ambulatory clinic:
Started with HIV/HCV co-infected patients
where 81% of clients are women
- **Intensive case management led by NPs** and supported by ID-MDs, Pharmacists, RNs, and SW/outreach and team
- **Weekly HCV clinical rounds** with the interdisciplinary team to address any challenges that arise in real time

Successes of this model

- Majority of co-infected clients of the clinic were HCV cured
- 97% cure rates in women!
- Improved self-esteem of women
- Improved CD4 in a subset of clients

- Collaboration with community pharmacies, for linkage of DAAs to ART and/or to Methadone
- Collaboration with colleagues from other clinics
- Staff and patients satisfaction increased

Gaps identified in HCV treatment for Women

- There is a missed opportunity of preventing vertical transmission of HCV, as there is **no guidelines to test for HCV in pregnancy in Canada (there is for HIV/HBV)** (US recently changed to test in pregnancy)
PH estimates: 44% of HCV+ are unaware of their HCV
- **If tested by current risk factors in pregnancy, 50% missed***
- Oak Tree team recently published a commentary:
Preventing vertical transmission of HCV in Canada
Authors: Chelsea Elwood, Laura J. Sauve and Neora Pick
CMAJ June 17, 2019:191(24)E650-E651.

Gaps identified during this process-#2:

- There is a **gap on follow up on HCV status in children born to HCV+ mothers in BC**
- **HCV Vertical transmission rates-5-10%,
HCV Prevalence in pregnancy-1% in BC**
- Current recommendations is to test at 18 months of age; however, not many tests at this age are requested (BCCDC)
- Oak Tree is working with the BCCDC, & Pediatric ID (Dr Laura Sauve and Dr Rick Schreiber) to get funding to address this gap (DAAs are currently approved from age 12)

- **Don't forget to test the partners!**

Future Directions

- Complete treatment of all co-infected clients of clinic
- We are piloting HCV therapy in **HCV mono-infected women in reproductive age**
- Expand HCV screening in women in BC
- Treat HCV mono-infected women **pre or post pregnancy to prevent future vertical HCV** transmission
- We are a provincial resource, feel free to consult with us for **HIV or HCV women's care**

