

Introduction & Background:

Dramatic increases in opioid poisonings and deaths have necessitated unique and varied responses to address this public health crisis. The Injectable Opioid Agonist Therapy (iOAT) treatment model is derived from the BC Centre on Substance Use guidelines¹, and is an expert-led approach, for individuals who have been unsuccessful with oral opioid agonist therapies.

The Calgary Injectable Opioid Agonist Therapy Clinic (iOAT) is an outpatient program providing harm reduction services and substance use disorder treatment for clients with moderate to severe opioid use disorder and a history of intravenous drug use.

In addition to the intensive treatment for opioid use disorder, the iOAT clinic provides wraparound services for clients to address diverse health and social issues, including primary care, mental health, income support, and housing supported by an interdisciplinary team.

Individuals who inject drugs experience the highest rates of Hepatitis C transmission in Canada. Estimates from 2011 reported that 66% of people who use intravenous drugs are hepatitis C antibody positive³. This is reflected in the iOAT clinic data which found that 76% of clients are antibody positive.

Hepatitis C treatment has increased in safety, effectiveness and accessibility. Successful treatment is possible and should be offered to individuals who use intravenous drugs⁴. These individuals are eligible for treatment and outcomes are improved when supports are in place⁵. A co-located and integrated hepatitis C treatment program for this population facilitates the cascade of care from hepatitis detection, to completion of treatment. This approach has benefits from both individual and public health perspectives.

Methods

Co-location of Services: Recognizing the complex cascade of care for Hep C and the impact this has on vulnerable populations, conscious effort was made to have co-location of Hep C treatment as opposed to outside referral for the service.

Team approach: A team based approach to the integration of Hepatitis C treatment was used. The team consisted of nursing staff and providers who would identify, triage, and treat clients on top of maintaining treatment (Figure 1).

All individuals who entered the clinic are routinely screened for hepatitis C. If they are antibody positive, an appointment was made with the onsite provider for further evaluation. Genotyping and viral load was arranged for each patient if it was not already done from other clinics. APRI and Fib-4 scores were calculated, and if there were any concerns of fibrosis Fibroscan[®] and ultrasound was conducted.

Once baseline data was obtained, pangenotypic regimens were usually chosen due to the efficacy profile as well as the concern of the potential for multiple genotyped infections existing within individuals who use intravenous substances (Figure 2). Daily observed anti-retroviral medication was standardized in the clinic and supported by pharmacy staff.

Barriers to treatment: In addition barriers to medication adherence such as psychological and psychiatric concerns were managed by an onsite psychiatrist as well as onsite peer support workers. More importantly, upstream determinants of health were addressed by our social worker to provide full wrap around supports.



Results

Implementation evaluation was conducted utilizing RE-AIM principles:

Reach: 33/35 of our patients received screening for Hep C. Some of our patients were already treated in the past, but of our population who were viral load positive, 90% had entered treatment.

Efficacy: Adherence was maintained for all clients. One client unfortunately got re-infected post treatment.

Adoption: Almost every member of the iOAT team has participated in the management of our hepatitis C patients in our clinic. No organizational concerns were noted.

Implementation: The implementation of the program was done rather seamlessly. Implementation drivers included senior management staff as the program fit well into Alberta Health Services organizational values and goals.

Maintenance: Currently patients, new and old, are continued to be under surveillance and treated for Hep C once they are identified.

Fig. 1 Staffing Structure of Team

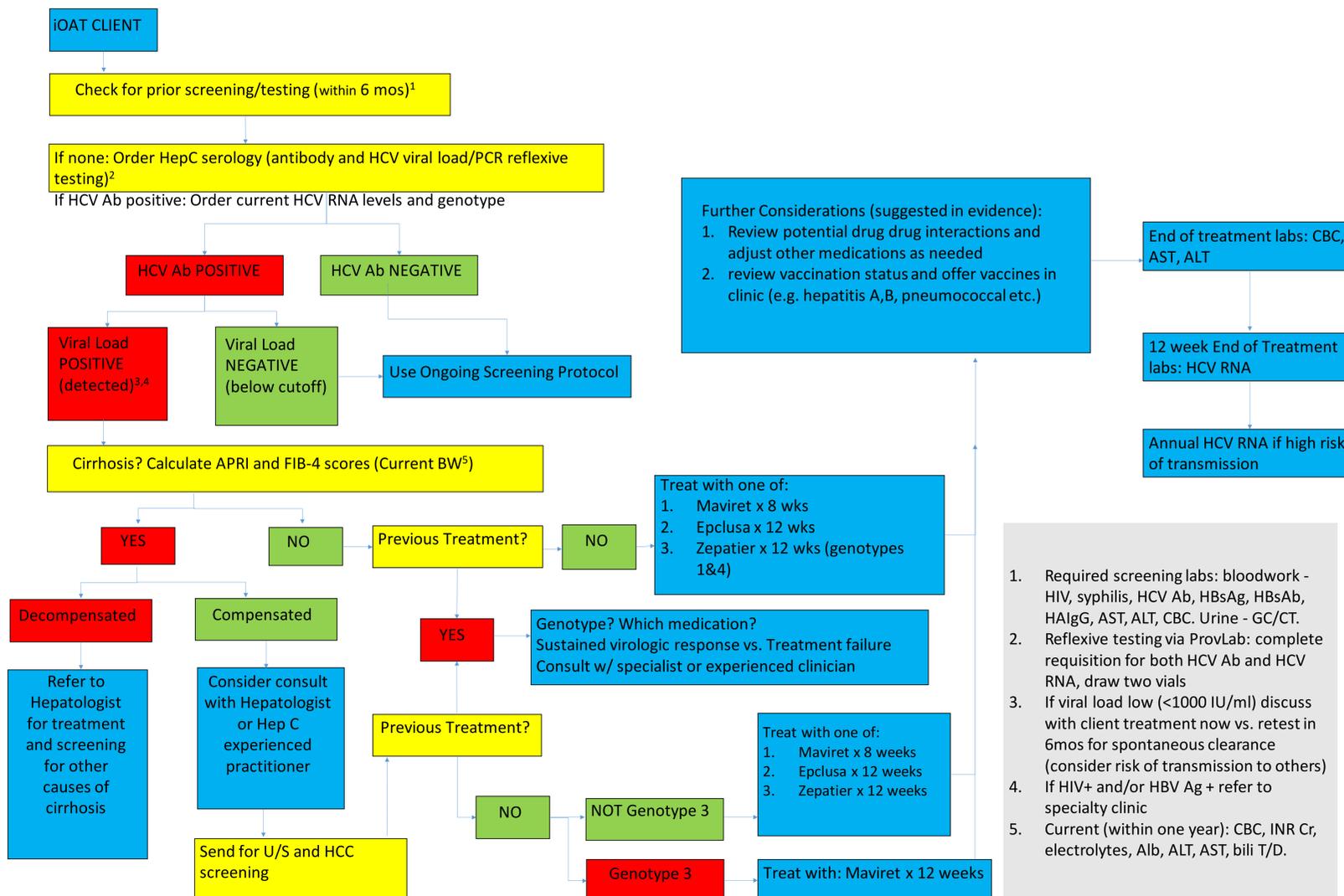


Fig. 2 Treatment Flow Chart

Discussion

Implementation:

The iOAT Hepatitis C treatment strategy was a part of a broader health service initiative to support individuals with substance use concerns. Implementation of the program did not run into any major barriers. It integrated key wrap around services in combination with daily treatment support to have almost 100% successful adherence outcomes for those who were initiated on treatment.

Impact on the Cascade of Care:

By minimizing the cascade of care through co-located services, majority of our clients were able to receive and complete treatment.

Conclusion

Integrated Hep C treatment in iOAT programming can be implemented provided proper organizational support, team based approaches, and co-located services, minimizing the cascade of care and improving outcomes.

References

1. British Columbia Centre on Substance Use and B.C. Ministry of Health. A Guideline for the Injectable Opioid Agonist Treatment for Opioid Use Disorder. Vancouver, BC, Canada: British Columbia Centre on Substance Use (BCCSU); 2017. Available from: http://www.bccsu.ca/wp-content/uploads/2019/03/BC_iOAT_Guideline.pdf
2. Trubnikov M, Yan P, Archibald C. Estimated Prevalence of Hepatitis C Virus Infection in Canada, 2011. *Canada Communicable Disease Report*. 2014 Dec 18;40(19). Available from: <http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/14vol40/dr-rm40-19/surveillance-b-eng.php>
3. Grebely, J. et al. Recommendations for the management of hepatitis C virus infection among people who inject drugs. *International Journal of Drug Policy*. 2015; (26):1028-1038, Available at: <https://doi.org/10.1016/j.drugpo.2015.07.005>
4. CATIE. Hepatitis C: An in-depth guide. Available from: <https://www.catie.ca/en/practical-guides/hepc-in-depth/treatment/hepatitis-c-treatment-and-drug-use>
5. Required screening labs: bloodwork - HIV, syphilis, HCV Ab, HBsAg, HBsAb, HAIgG, AST, ALT, CBC. Urine - GC/CT. Reflexive testing via ProLab: complete requisition for both HCV Ab and HCV RNA, draw two vials. If viral load low (<1000 IU/ml) discuss with client treatment now vs. retest in 6mos for spontaneous clearance (consider risk of transmission to others) If HIV+ and/or HBV Ag + refer to specialty clinic. Current (within one year): CBC, INR Cr, electrolytes, Alb, ALT, AST, bili T/D.