#VP30

Retrospective Review of the TrueNORTH Medical Centres Database in Canada:

Assessment of the impact of simplified carE on diRect-acting aNtivirals treatment for Hepatitis C Virus patients in addiction care – NORTHERN-HCV

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DISCLOSURES

Funding

- AbbVie funded the study; contributed to the design; participated in the interpretation of data in writing, reviewing, and approving the final version. No honoraria or payments were made for authorship.

Conflicts of interest

- CC: has served as a consultant to AbbVie, and has received research funding and speaker fees from AbbVie.
- NF, RG, and VG are employees of AbbVie Canada.

Picture taking is ALLOWED during my presentation (including presented slides)

Land Acknowledgement

We acknowledge the land we are meeting on is the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat peoples and is now home to many diverse First Nations and the Métis peoples. We also acknowledge that Toronto is covered by Treaty 13 with the Mississaugas of the Credit.

Background

Hepatitis C rates by public health unit for all ages, for all sexes, Ontario, 2019

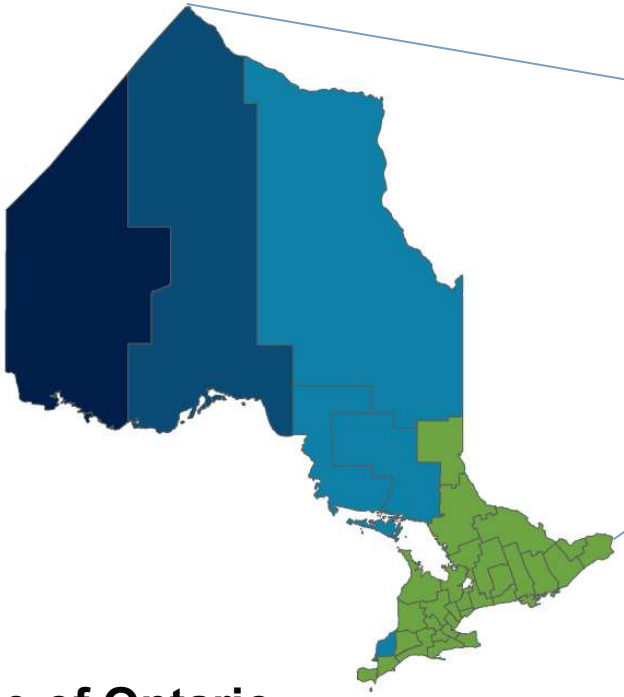
Ontario

Rate: 32.9
Total Cases: 4,828
Cases did not specify as male or female: 22
Population: 14,660,193

Note: Cases that did not specify as male or female are included in total case counts. All ages include cases with unknown age.

Rate range
(per 100,000 population)

- 0.0
- 0.1 - 68.1
- 68.2 - 122.3
- 122.4 - 176.5
- 176.6 - 230.7



Province of Ontario

Canada
Population: 37,59 millions (2019)

Background

High Prevalence

- From 2018 to 2030, it is estimated that **83% of new HCV infections in Canada** (43% globally) will be due to intravenous drug use transmission[1]

Suboptimal Treatment Rate

- Treatment uptake remains suboptimal despite a high prevalence[2] and **current international guidelines**[3,4] supporting HCV treatment for this group

Simplified Care Model

- Data are limited on simplified HCV treatment, comprising of **point-of-care screening (PoCS) and telemedicine care**

[1]Trickey A. et al. *Lancet Gastroenterol Hepatol.,* 2019;4:435-44; [2]Marjenko I. et al. *Int J Drug Policy*. 2019 Oct;72:69-76; [3]EASL Recommendations on Treatment of Hepatitis C: Final update of the series 2020. *J Hepatol* 2020; 70:1–49; [4] *WHO Guidelines for Care and Treatment of Persons Diagnosed with Chronic Hepatitis 2018* (July 2018).

trueNorth
Medical Centres

- **90 locations** throughout Ontario, Canada
- Effective, confidential, and professional **treatment to individuals with substance use disorder**
- 10 centers that have implemented **simplified care** were studied in NORTHERN-HCV

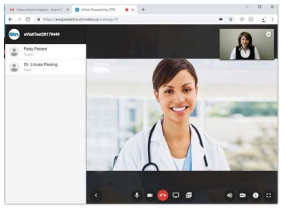
TEEMAPP

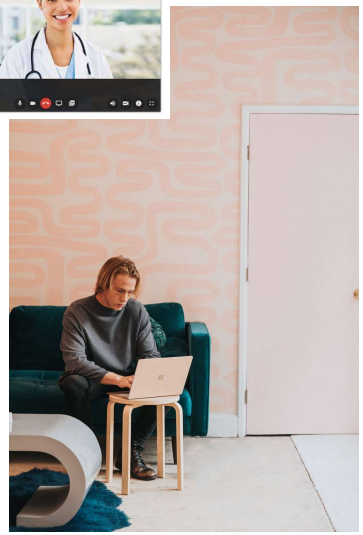
Telemedicine Enhanced

Expanded Medical Access

Partnership

- **Telemedicine** offers enhanced care (compared with face-to-face): More services, convenient locations, convenient times
- **Expanded Medical Access** to services: More hours and locations, face to face - all patients crammed into a few hours, TM - Patients can show at their convenience





Study Objectives

Primary

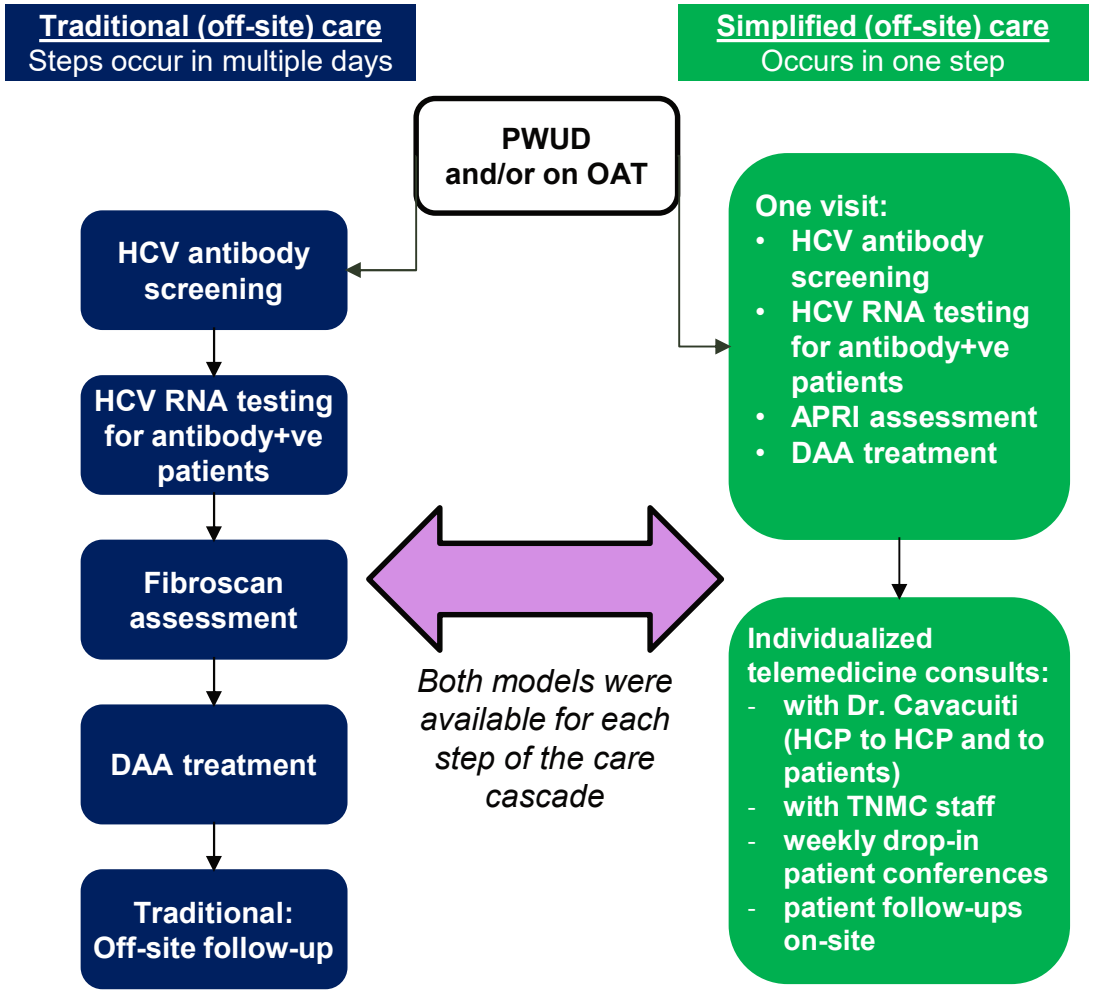
- To determine the percentages of **HCV RNA-positive patients who initiated direct-acting antiviral** (**DAA) treatment** and to differentiate those who initiated treatment off-site (traditional) and on-site (simplified)

Secondary

- To document the number of **patients at TNMC for each step of the care cascade**, off-site and on-site
- To observe the **impact of simplified care on treatment outcomes** of HCV RNA-positive patients treated with DAAs
- To better elucidate the **demographics of the TNMC patient population**

Study Design

- Single-cohort, non-interventional, retrospective review of **TNMC database for HCV patients treated with DAAs**
- Across 10 TNMC sites, implementation of simplified care **initiated in Jan 2019 and completed by Sep 2019**
- For each element of the care cascade, **both the traditional and the simplified care models available** in each center



Study Eligibility

Inclusion

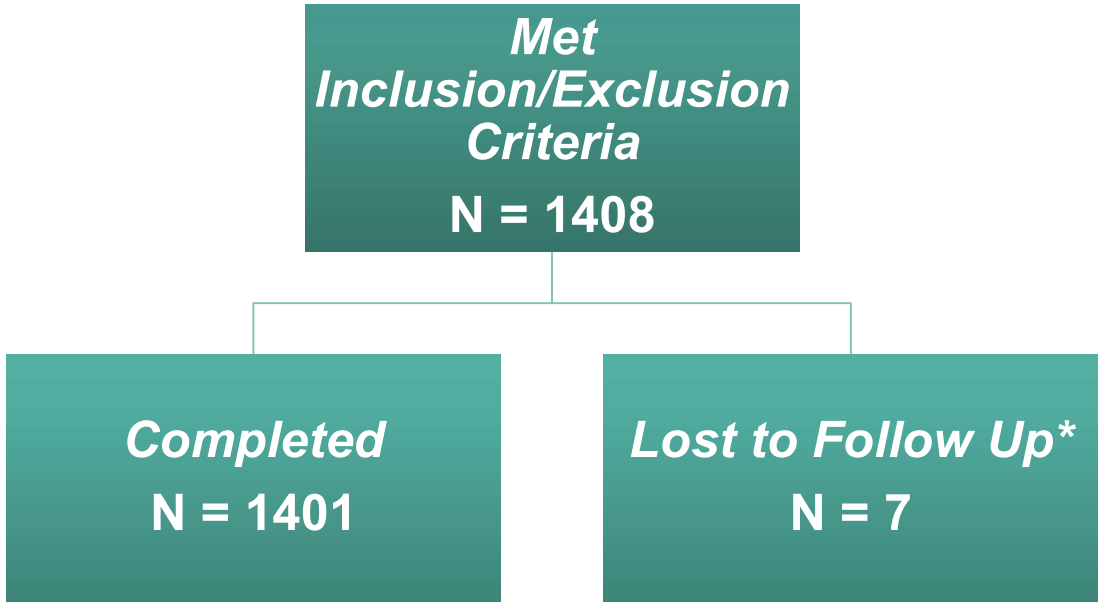
- ≥ 18 years
- Registered with TNMC

Exclusion

- Substance use disorder(s) < 3 months on the TNMC addiction program
- Patients in the database who were not treated with an oral DAA

*Data on patients meeting the eligibility criteria were extracted from the TNMC database from **April 2013 to November 2020**, in each center*

Participants



*Lost to Follow-up Before 12 Weeks Post-Treatment N = 6

Trial Duration (SD): *530.7 (574.5) days*

Baseline Characteristics

	Patients
Study Eligible Patients	***N = 1408***
Mean Age, (SD)	40.8 (11.09)
Male, n (%)	916 (65.1%)
Housing Status – Renting, n (%)	612 (43.5%)
Employment Status – None, n (%)	927 (65.8%)
Non-Substance Psychiatric Disorder, n (%)	756 (53.7%)
Screened Patients	***N = 650***
Genotype, n (%)	
1a	91 (48.4%)
3	41 (21.8%)
Fibrosis Stage – F4, n (%)	11 (10.8%)

SD, standard deviation. Opioid Use Disorder/Mental Health Comorbidities determined by staff chart review. Patients with non-substance psychiatric disorders are those who had at least one medical history item that is classified under MedDRA System Organ Class of 'Psychiatric Disorder' and where the MedDRA Preferred Term does not indicate that the disorder is a form of substance abuse/dependence.

Concurrent Drug Use and OAT

	Patients n (%)	Mean Dosage (SD) (mg)
***Pre-treatment Drug Use** (N = 650, screened patients)*		
Benzodiazepine	89 (14.0%)	N/A
Cocaine	171 (26.8%)	N/A
Fentanyl	135 (21.2%)	N/A
Methamphetamine	116 (18.2%)	N/A
Opiate	113 (17.7%)	N/A
***OAT Prescription** (N = 1408, study eligible patients)*		
Kadian (morphine sulphate pentahydrate)	4 (0.3%)	275.0 (157.0)
Metadol (methadone hydrochloride)	954 (67.8%)	62.3 (37.4)
Suboxone (buprenorphine & Naloxone)	450 (32.0%)	11.2 (8.1)

N/A, not available; OAT: Opioid agonist therapy; SD, standard deviation.

Duration

Mean Total Treatment Duration (SD)

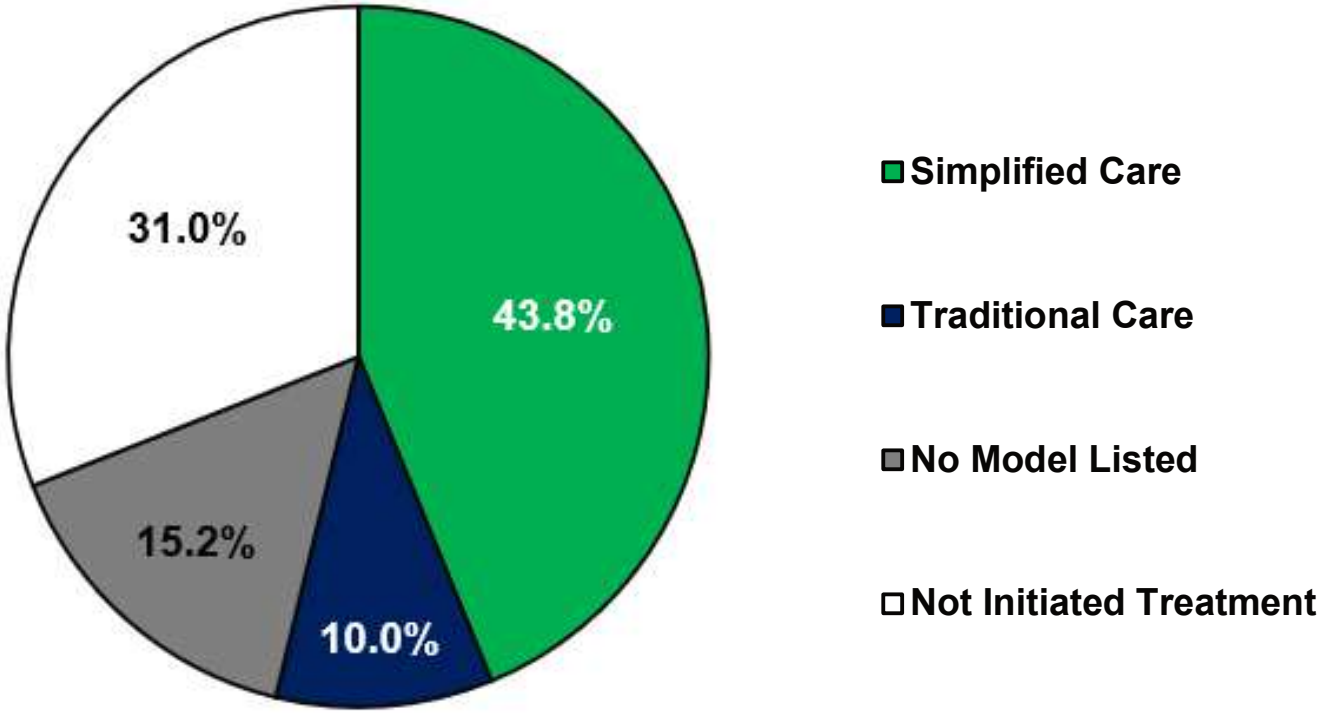
- 73.0 (16.3) days

Mean Time on DAA Treatment (SD)

- 10.4 (2.3) weeks

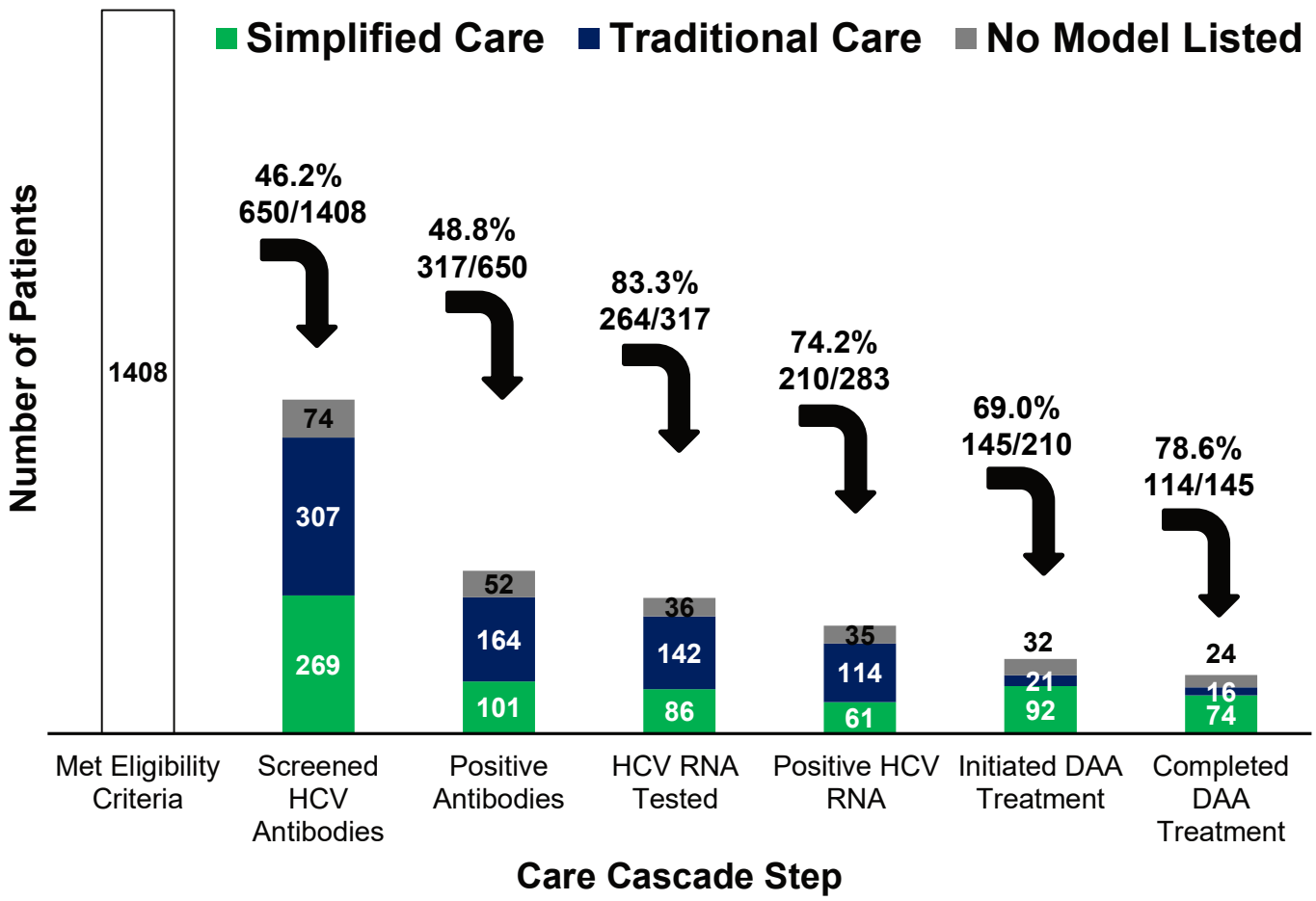
Primary Endpoint

Percentage of Treatment-eligible Patients Who Initiated DAA Treatment, *N* = 210



DAA, direct-acting antiviral.

HCV Care Cascade



DAA, direct-acting antiviral; HCV, hepatitis C virus; RNA; ribonucleic acid.

One Individual Did Not Achieve SVR12

	Patients who Completed DAA Treatment (*N* = 114)
SVR12 Achieved	43 (37.7%)
Did Not Achieve SVR12	1 (0.9%)
Awaiting SVR12 Testing	12 (10.5%)
Unknown	54 (47.4%)
Lost to Follow-Up Before SVR12	4 (3.5%)

DAA, direct-acting antiviral; SVR12, sustained virologic response at Week 12.

Hepatitis C Treatment Summary

	Treatment-initiated Patients (*N* = 145)
HCV Treatment	
Epclusa (sofosbuvir/velpatasvir)	31 (24.6%)
Harvoni (ledipasvir/sofosbuvir)	1 (0.8%)
Holkira Pak (ombitasvir/paritaprevir/ritonavir)	9 (7.1%)
Maviret (glecaprevir/pibrentasvir)	45 (35.7%)
Zepatier (elbasvir/grazoprevir)	16 (12.7%)
Unknown	24 (19.0%)
HCV Treatment History	
Experienced	34 (23.8%)
Naïve	71 (49.7%)
Unknown	38 (26.6%)

Conclusion

In PWUD living with HCV, a simplified care model (including one-stop-shop, PoCS, and telemedicine) is **more effective** than the traditional care model **in achieving DAA treatment initiation.**

DAA, direct-acting antiviral; HCV, hepatitis C virus; PoCS, point-of-care screening; PWUD, people who use drugs.

Future Opportunities

- Expand simplified care model to **more TNMC sites**
- Use of **peer-support** to navigate individuals to services
- **Re-opening of laboratory services** as pandemic is coming under control
- Need **access to PoC tools** for evaluating SVR12 (potentially DBS or PoC RNA)

Acknowledgments

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