Community-based point-of-care hepatitis C testing and treatment for people who inject drugs in Myanmar

Bridget Draper[1,2], Alisa Pedrana[1,2], Jessica Howell[1,2], Win Lei Yee[1], Nanda Myo Aung Wan[3], Hla Htay[1], Khin Pyone Kyi[4], Margaret Hellard[1,2]

[1]Burnet Institute, [2]SPHPM, Monash University, Melbourne, Australia
[3]Myanmar National Drug Dependency Treatment and Research Unit, [4]Myanmar Liver Foundation
Contact: Bridget Draper – bridget.draper@burnet.edu.au

Background

In Myanmar, and globally, access to direct-acting antivirals (DAAs) for hepatitis C (HCV) treatment is generally limited to tertiary hospitals and private sector. The advent of DAAs and point-of-care (POC) testing platforms for HCV allow for the decentralization of care into community settings. Further, the simplicity of DAAs allows for trained generalist doctors to treat most patients with HCV in community settings.

In Myanmar, prevalence of hepatitis C is estimated to be 2.7% and higher among key risk groups including people who inject drugs and people living with HIV (Myanmar National Action Plan for Viral Hepatitis Response 2017-2020).

Until now, the hepatitis C treatment in Myanmar has been provided through the government hospitals, through research/philanthropic projects and in the private sector. If we are to reach all people living HCV we must expand HCV services into community settings.

Methods

This study is an effectiveness-implementation hybrid trial of community-based POC testing and DAA therapy for HCV among people who inject drugs (Thingangyun Clinic – Burnet Institute) and general population (Than Sitt Charity Clinic – Myanmar Liver Foundation) in Yangon, Myanmar. Thingangyun Clinic distributes sterile needles/syringes to all requesting this service; approximately 3000 needles/syringes are distributed per month.

Rapid diagnostic testing for anti-HCV antibodies is performed on-site; if reactive, POC Xpert HCV VL confirmatory testing is then performed on-site on the same day. For those with confirmed HCV infection, external laboratory investigations are returned to the participant within a week at their next booked appointment and patients is commenced on DAA therapy at that time by the generalist doctor.

Clinical data are collected in case report forms directly into OpenMRS and behavioral surveys are completed by participants with assistance from the study nurse using REDCap.

Recruitment started on 30 January 2019 and is ongoing. Preliminary results from first 250 participants until 15 July 2019 are presented here. Results focus on description of population attending each clinic, cascade of care and turn around time for commencing treatment.

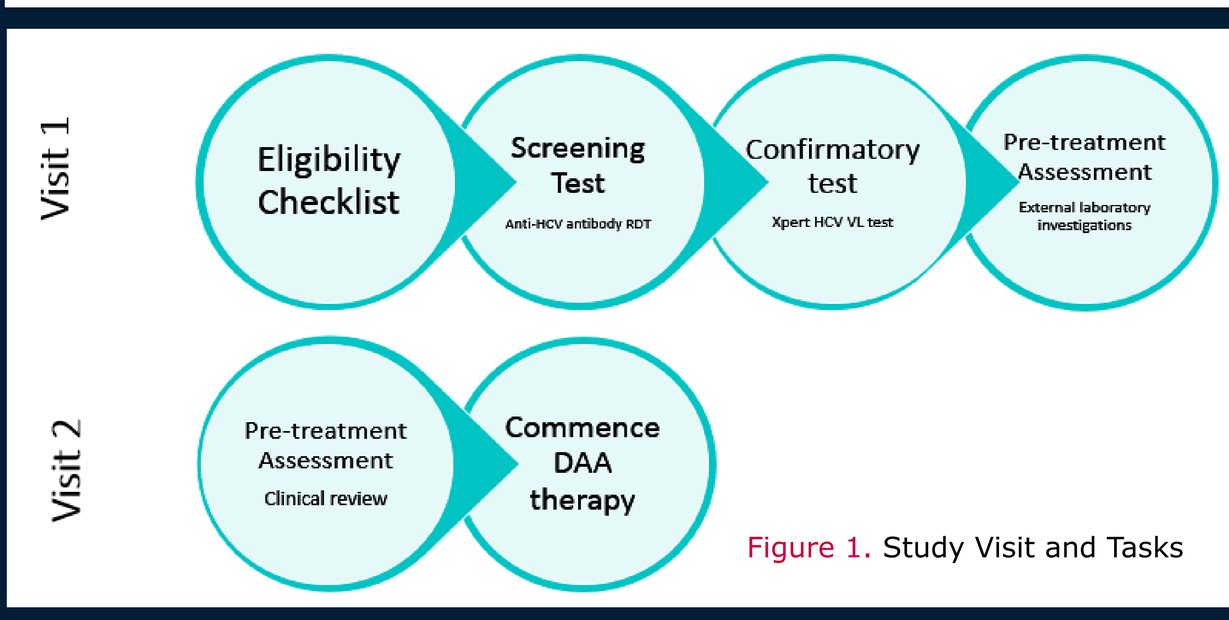


Figure 1. Study Visit and Tasks

Results

Of the 250 participants enrolled at 15 July 2019, 131 were recruited at the Burnet Institute, Thingangyun Clinic (TGG) and 119 were recruited at the Myanmar Liver Foundation (MLF), Than Sitt Charity Clinic (Yangon). At TGG Clinic, majority (94%) of participants are male; less than half (39%) are male at MLF Clinic. Median age at TGG Clinic is 34 years (IQR 28, 41); median age at MLF Clinic is 49 years (IQR 38, 59).

The most common risk factors for HCV reported varied by site. At TGG Clinic, almost all reported their injecting drug use as a risk factor for HCV. At MLF Clinic, approximately one quarter reported no known risk factor, reported family history of HCV as risk factor and reported surgery as risk factor.

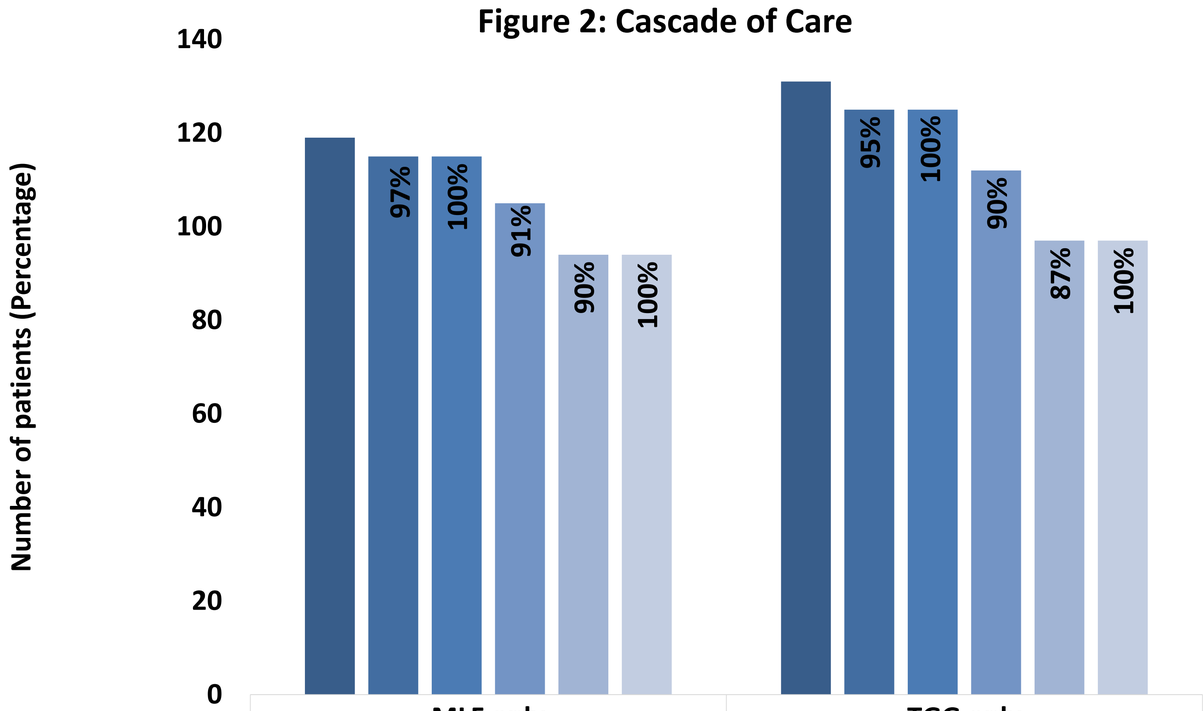
Of those who had ever injected drugs at TGG Clinic (n=128), majority (83%) had injected drugs in the past one month and had injected median of 5 times (IQR 2, 20) in past one month. Majority (82%) were currently on methadone.

At TGG, 90% had same-day HCV antibody and HCV VL testing; at MLF, 99% had same-day HCV antibody and HCV VL testing. At TGG, mean time from HCV VL test to initiating DAAs was 8.6 days (SD=14.5); at MLF, mean time to initiating DAAs was 6.3 days (SD=13.5). This includes those referred to specialist for review.

Retention in care across cascade from screening to diagnosis is very high and again from diagnosis to DAA initiation. Eight patients had invalid GeneXpert HCV VL test results and required re-testing of sample/second blood draw to receive diagnosis. One patient withdrew after prescribing DAAs – patient returned DAA bottle prior to taking drug and started opiate rehabilitation program in hospital.

25 patients were ineligible due to: 4 HIV positive, 4 HBsAg positive, 2 HBcAb positive and 15 HBcAb positive and HBsAb negative (no HBV DNA testing available at time to confirm status).

Figure 2: Cascade of Care



	MLF only	TGG only
Ab tested	119	131
Ab positive	115	125
RNA tested	115	125
RNA positive	105	112
Eligible	94	97
Prescribed DAAs	94	97

Conclusion

Preliminary results from this study suggest that providing point-of-care screening and confirmatory testing on-site in community-based settings allows for high retention in care from screening to diagnosis and onto treatment among people who inject drugs and general population equally.

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Myanmar Liver Foundation

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