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

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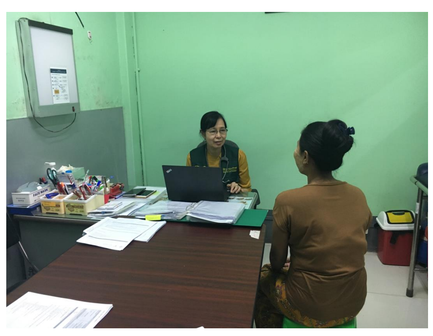
Background

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.

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 196 participants until 30 June 2019 are presented here. Results focus on description of population attending each clinic, cascade of care and turn around time for commencing treatment.

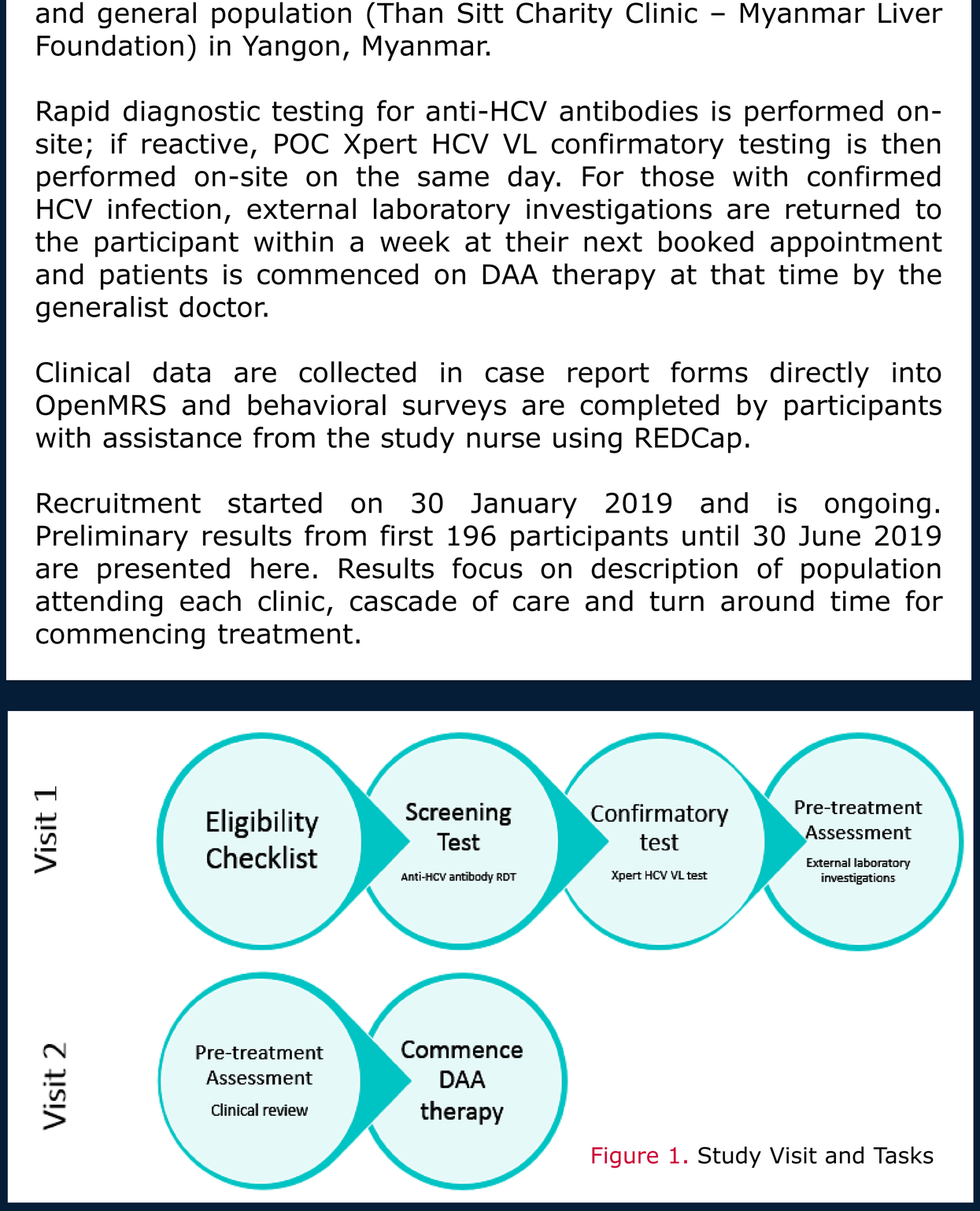


Figure 1. Study Visit and Tasks

Results

Of the 196 participants enrolled at 30 June 2019, 97 were recruited at the Burnet Institute, Thingangyun Clinic (TGG) and 99 were recruited at the Myanmar Liver Foundation (MLF), Than Sitt Charity Clinic (Yangon).

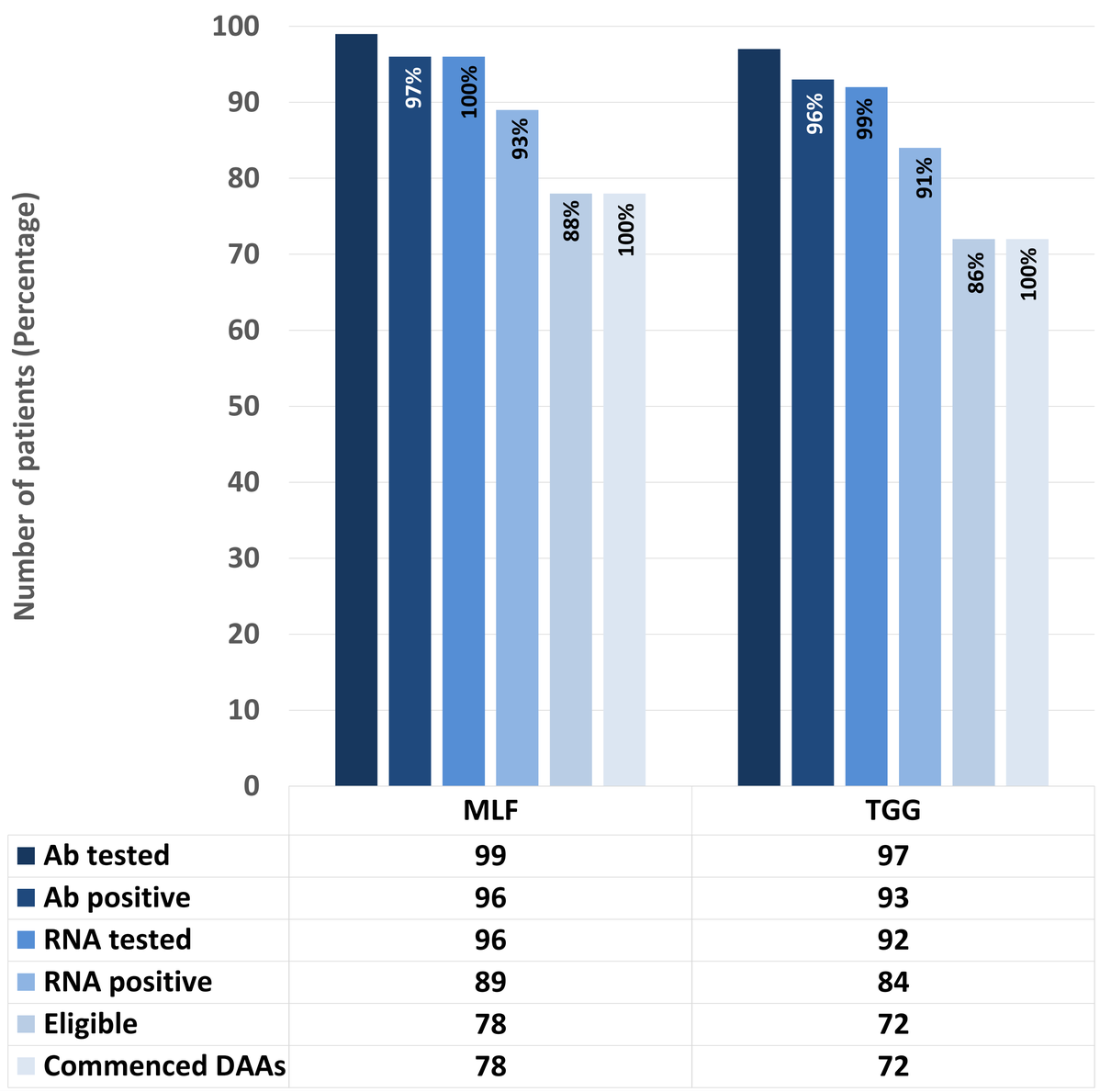
At TGG Clinic, majority of participants are male (90% at TGG); less than half are male at MLF Clinic (37% at MLF). Median age at TGG Clinic is 34 years (IQR 29, 42); median age at MLF Clinic is 49 years (IQR 38, 58). The most common risk factors for HCV reported varied by site. At TGG Clinic, almost 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.

At TGG, 89% 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 7.2 days (SD=12.0); at MLF, mean time to initiating DAAs was 4.1 days (SD=7.2). 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. One patient had invalid GeneXpert HCV VL test result and required re-testing of sample to receive diagnosis. Two patients were lost to follow up (once prior to receiving HCV VL result, one prior to commencing DAAs). 22 patients were ineligible due to: 3 HIV positive, 18 HBV chronic infection/unclear status.

Figure 2: Cascade of Care, by site



	MLF	TGG
Ab tested	99	97
Ab positive	96	93
RNA tested	96	92
RNA positive	89	84
Eligible	78	72
Commenced DAAs	78	72

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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