

Successful Treatment of Hepatitis C in a Dedicated GP Practice for the Homeless using a Multidisciplinary Approach

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Background

Hepatitis C virus (HCV) prevalence in the homeless population disproportionately high with estimates in some areas up to 40%¹. With Direct Acting Antivirals (DAA), HCV is an easily curable disease as reflected in clinical trials and real world data. However, homelessness is associated with higher morbidity and mortality along with polypharmacy and polysubstance misuse. The homeless population are less likely to engage with traditional hospital based HCV treatment services. Delivering HCV treatment in a community healthcare setting which is specifically directed at the homeless population removes geographic barriers to treatment making the service convenient, accessible and holistic in nature.

Description of care/intervention

An HCV outreach service is offered in central Edinburgh at the Edinburgh Access Practice (EAP) - a general practice for Lothian's homeless population - with joint clinical input from primary and secondary care. This allows the integration of the HCV treatment service with the patients' immediate social and healthcare needs under one roof (illustrated in figure 1) at a convenient central location.

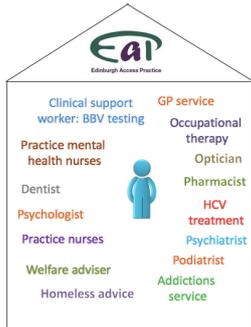


Figure 1. Integration of HCV outreach treatment within the Edinburgh Access Practice

A consultant hepatologist from the Royal Infirmary of Edinburgh has overall clinical responsibility for the treatment service and the HCV treatment is coordinated by a hepatology nurse practitioner, also from secondary care. A secondary care specialist clinical pharmacist advises on Drug Drug Interactions (DDI) and liaises with community pharmacists for supply of medicines. The EAP provides HCV patient support and blood borne virus testing/ phlebotomy from a clinical support worker and clinical input from a dedicated GP. Strategies to increase HCV treatment numbers are illustrated in figure 2.

DAA treatment is commenced according to local guidelines. HCV medicines are supplied via community pharmacy, linked into opioid substitution treatment (OST) where relevant, and often on a daily observed basis which allows support and monitoring of adherence. Sustained Viral Response (SVR) is measured 12 weeks or more after cessation of treatment.

Effectiveness:

From October '16 - May '18 DAA based treatment was commenced in 49 patients (n=49) of whom 46 (94%) completed treatment. At this time point SVR12 is available on 28 patients. Of these, 25 achieved SVR (92%). The remaining 24 patients await SVR. So far there has been one re-infection. Three patients' treatment were incomplete (taking approximately 75% of the total course), one of whom still achieved an SVR. Treatment outcomes are illustrated in figure 3.

Patient feedback



Patient feedback has been positive. Comments from an audit in 2017² indicated that patients liked:

- The familiarity of the EAP - made to feel at ease
- The positive relationship with staff
- Geographic proximity of the clinic to patients
- Short waiting times for treatment
- Convenience of combining healthcare appointments
- Drop in and 'open door' policy - less stigmatising
- Convenience of daily dispensing of antivirals at community pharmacy.

Conclusion

Despite perceived barriers to treatment in the homeless population, our data demonstrates that successful HCV treatment can be delivered in an outreach setting with co-working between primary and secondary health sectors and a multidisciplinary approach. Treatment is integrated with the patients' general healthcare needs under one roof with an opportunistic and clinically flexible approach. Pharmacists can support safe treatment and adherence particularly through linkage to supply of OST. The transient nature of this population will always be a challenge along with their complex health needs and socio-economic circumstances. However with large numbers of HCV infected patients within the homeless population, the EAP is an ideal location to target treatments and reduce the pool of infection thereby contributing to the goal of eradication of HCV.

References

1. Beijer U, Wolf A, Fazel S. 2012. Prevalence of tuberculosis, hepatitis C virus, and HIV in homeless people: a systematic review and meta-analysis. *Lancet Infect Dis.* 12:859-870. [https://doi.org/10.1016/S1473-3099\(12\)70177-9](https://doi.org/10.1016/S1473-3099(12)70177-9)
2. Budd J, Scott C, Anderson J, Martin R. 2017. EAP Hepatitis C Outreach Clinic Audit.

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Figure 2. Aims and strategies of HCV treatment clinic at the EAP

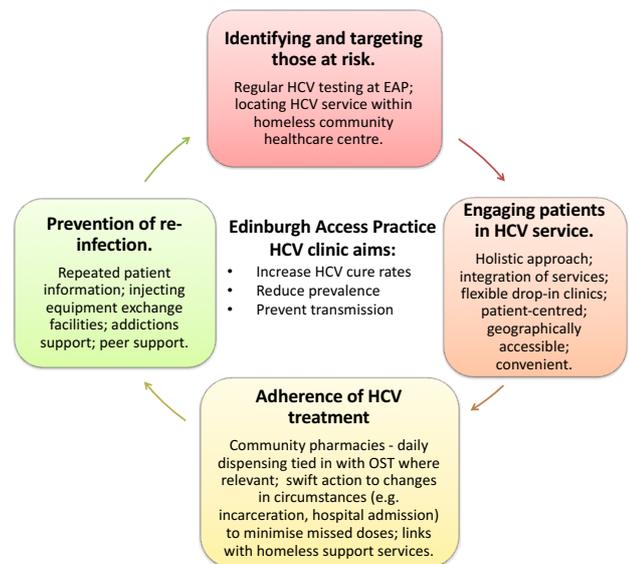


Figure 3 Treatment outcomes at the Edinburgh Access Practice from October '16 - May '18

