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## **ITTREAT (*Integrated community-based Test – stage – TREAT*)**

*An example of developing an integrated hepatitis C community service for people who inject drugs*

### **Key points**

- The Brighton Pilot was a 4-year *Integrated Test-stage and TREAT* (ITTREAT) community HCV project evaluation, running from December 2013 - Dec 2017.
- The project appointed a specialist hepatitis nurse to lead a 'one-stop' holistic hepatitis C service - including testing, assessment of liver scarring, education and treatment - within a community-based substance misuse service.
- The project screened 550 participants of whom 250 (45%) were found to be HCV PCR positive. One hundred and seventy-nine individuals were suitable for HCV treatment, of which 116 commenced/completed treatment in the community, with a 98% compliance rate and treatment outcomes comparable to secondary care.
- The service demonstrated a clinically effective model for delivering accessible community-based test and treat HCV services, and contributed to a reduction in hepatitis C prevalence in the area. The service is now permanently funded by Brighton & Sussex University Hospital.

### **Overview**

The ITTREAT project supported and monitored the development of an integrated nurse-led hepatitis C service within a substance misuse service in Brighton and Hove. The specialist nurse worked full time and was employed by Brighton & Sussex University Hospital.

The project aimed to investigate the effectiveness of delivering integrated hepatitis C care, from testing to treatment, in an accessible community setting aimed at people who inject drugs (PWID). PWID are a highly vulnerable and disenfranchised cohort with poor engagement with health services, and past research has shown that PWID who are referred to hospital for hepatitis C treatment have very high rates of disengagement from care.

By providing on-site treatment, the ITTREAT project aimed to access 'hard to reach' PWID and ensure continuity of care in a local setting, minimising treatment drop-out rates and providing high quality and effective service delivery. The project contributed to reducing hepatitis C prevalence amongst PWID in Brighton and proved to be a clinically effective

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model for delivering accessible community-based test and treat hepatitis C services. The service has now been mainstreamed and is being presented as a model for replication across the country.

## **Why the service was established**

PWID are the group most at risk of becoming infected with hepatitis C, and approximately 50% of PWID remain undiagnosed<sup>1</sup>. 80-90% of people with hepatitis C in England are people who inject drugs<sup>2</sup>.

In England, the hepatitis C treatment is still predominantly delivered in an acute hospital setting, which had also been the case in Brighton prior to the ITTREAT project. Drop-out rates along the hepatitis C referral pathway are high. Previous studies have found that less than half of those diagnosed are referred to appropriate specialist care, with even fewer attending appointments and beginning treatment<sup>3</sup>.

In 2011, with the help of research funding, Brighton appointed a hepatitis nurse to work at the Substance Misuse Service to perform blood borne virus (BBV) screening with onward referral to the hospital. Only 5% of those referred actually attended their hospital appointment with none being eventually treated.<sup>4</sup>

NHS England has set out ambitious plans to eliminate hepatitis C by 2025<sup>5</sup>. For this to be achieved, significantly greater numbers of PWID will have to be treated.

Experts from across the hepatitis C care pathway consistently suggest that the best way to treat increasing numbers of people is to ensure treatment is co-located with testing in community services and easily accessible to patients in settings they are comfortable in and

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<sup>1</sup> Public Health England. Hepatitis C in the UK. 2017. Available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/565459/Hepatitis\\_C\\_in\\_the\\_UK\\_2016\\_report.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/565459/Hepatitis_C_in_the_UK_2016_report.pdf)

<sup>2</sup> Marufu M, Williams H, Hill SL, Tibble J, Verma S. Gender Differences In Hepatitis C Seroprevalence And Suboptimal Vaccination and Hepatology Services uptake Amongst Substance Misusers. *Journal of Medical Virology*, 2012 Nov; 84:1737-43

<sup>3</sup> W. L. Irving; S. Smith; R. Cater; S. Pugh; et al., (2006) 'Clinical pathways for patients with newly diagnosed hepatitis C – What actually happens' *Journal of Viral Hepatitis*. 13(4):264–271, doi:10.1016/j.jhep.2016.09.004.

Howes, N., Lattimore, S., Irving, W. L., & Thomson, B. J. (2016). Clinical Care Pathways for Patients With Hepatitis C: Reducing Critical Barriers to Effective Treatment. *Open Forum Infectious Diseases*, 3(1), ofv218. <http://doi.org/10.1093/ofid/ofv218>.

<sup>4</sup> Ibid.

<sup>5</sup> NHS England, 'NHS England sets out plans to be first in the world to eliminate Hepatitis C', January 2018, <https://www.england.nhs.uk/2018/01/hepatitis-c-2/>.

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are often already accessing. The ITTREAT project aimed to address poor engagement with health services among PWID and high levels of drop-out from care by trialling an integrated model of hepatitis C care – including treatment – in the community.

## **How the project worked**

Services provided by the specialist nurse within the substance misuse service included:

- Dried blood spot testing and pre and post-test discussion
- Mobile Fibroscan provision
- Working up patients for referral for MDT assessment
- Onsite treatment following MDT assessment (with the supervision of the Consultant Hepatologist)
- Co-ordinating with managers and commissioners to ensure high quality and effective service delivery including achieving local and national HCV targets
- Educating service-users and staff about hepatitis C

These hepatitis C services were integrated into a substance misuse service also providing opioid substitution therapy (OST), psychiatric services, social support and peer mentors.

The hepatitis C service was provided by an experienced specialist nurse under hepatologist supervision. The project collected clinical, qualitative, patient reported and health economic data.

## **Clinical Outcomes**

Project ITTREAT recruited 550 individuals between Dec 2013 and December 2017, of whom 250 (45%) were HCV PCR positive. 43% of individuals who underwent community fibroscan had clinically significant liver scarring (fibrosis). Approximately 179 (72%) individuals were suitable for HCV treatment, of which 116 commenced/completed treatment in the community with a 98% compliance rate and treatment outcomes comparable to secondary care (SVR12 rates of ~90%).

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In 2016/17, 34 patients were treated as part of the service; this is 15% of the total treated in all Sussex. In 2017/18, there are 32 treated to date, which is 17% of the treatment run rate year to date.<sup>6</sup>

The unlinked Anonymous Monitoring Survey of People who inject Drugs (Brighton Summary 2005-15) showed that compared to 2013, in 2015 (two years after project ITTREAT commenced) HCV seroprevalence amongst PWID reduced from 70% to 50%. In addition, the local Public Health Outcomes Framework shows improvements in local indicators.

Qualitative, health economic and patient reported outcomes are currently being analysed.

Project ITTREAT demonstrated a clinically effective model for delivering accessible community based test and treat HCV services, and has provided a service model for replication across the country.

### **Further application**

The ITTREAT team, with support from Brighton and Sussex University Hospital, have produced a commissioning business case template for local health systems, intended for use to secure funding for a specialist hepatitis C nurse and develop an integrated community-based hepatitis C service to engage PWID. The template provides background and evidence from the Brighton ITTREAT project and is designed to be locally amended based on local differences in epidemiology, or if a different community-based setting is proposed. The template is available for download in Word alongside this case study in the HCV Action resource library. The business case has been commissioned and funded by Gilead Sciences. Gilead Sciences had no editorial control over the document.

### **For additional details, please contact:**

Dr Sumita Verma  
Reader in Medicine, Brighton and Sussex Medical School and Hon Consultant Hepatology,  
Brighton and Sussex University Hospital  
s.verma@bsms.ac.uk

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<sup>6</sup> Hashim A, O’Sullivan M, Williams H, Verma S. Developing a Community HCV Service: Project ITTREAT (Integrated Community based Test - stage - TREAT) Service for People who Inject Drugs. Primary Health Care Research and Development. 2017 (Dec 4<sup>th</sup>)