

# Dried Blood Spot Testing for Hepatitis C in Community Pharmacy



Andrew Radley<sup>1</sup>  
Jan Tait<sup>1</sup>  
Brian Stephens<sup>1</sup>  
John Dillon<sup>1,2</sup>  
NHS Tayside<sup>1</sup>  
University of Dundee<sup>2</sup>

## Interim reporting of a quasi-experimental study of effectiveness in increasing uptake

### Introduction

Low rates of diagnosis for the population infected with Hepatitis C (HCV) represent a serious public health challenge. Undiagnosed and untreated disease has serious consequences for the individual and for the community through which the virus can be passed on. Within the population of service users accessing opioid replacement therapy (ORT) from pharmacies, infection rates may be as high as 40%. Within Tayside, recent audit demonstrated that uptake of testing was approximately 2.5% of the estimated population at risk per annum.



Stigma, travelling distance, confidentiality concerns and a lack of awareness of how to access testing, have been identified as barriers. Pilots of pharmacies offering dried blood spot testing (DBST) have previously been undertaken and have concluded that this pathway for testing is a feasible and efficient use of resources. The introduction of new oral treatments for HCV with greatly reduced monitoring requirement and much improved SVR rates, make the identification and treatment of cases a high priority for hepatitis service

This study aimed to compare the uptake of testing in pharmacies offering dried blood spot testing with the uptake of testing from established routes of access, in a population receiving ORT. Established routes of access included general practice testing, testing in secondary care, testing in specialist drug services and testing in third sector organisations.

The authors gratefully acknowledge the support given to this study through a Gilead Research Fellowship

### Method

A quasi-experimental study design was used to compare non-randomly chosen intervention and control groups for access and uptake of DBST. Staff from 6 community pharmacies sited across Dundee City were trained to provide DBST and were provided with a list of eligible patients who could be invited to be tested. The list was constructed through a data linkage exercise joining the prescribing database for Tayside with the laboratory testing database using the community health index number (CHI). The pharmacies undertook testing of consenting eligible patients during the last quarter of 2014.

The primary outcome measure for the study was defined as the proportion of ORT service users accessing testing during 2014. Uptake was compared for patients accessing DBST in the 6 community pharmacies during the last quarter of 2014, compared to service users accessing HCV testing from any other service, for the 12 months of 2014. A further 3 month period to enable further opportunities for patients to undertake DBST at the 6 pharmacies was provided during the first quarter of 2015. These data are not recorded in this paper.

### Results

A total population of 1,339 patients were identified as being prescribed ORT in Dundee City of which 561 had no record of testing for HCV. During the 3 month period during which DBST was undertaken, 43 patients from the 6 community pharmacies accepted a DBST from a total of 143 eligible patients attending those pharmacies. Within the 561 eligible patients taking ORT across the whole of Dundee City, a total of 75 patients were recorded as being tested for HCV on the laboratory database (30% Vs 13%). The OR for increased uptake of testing within the 6 pharmacies was 3.93 (95% CI 2.39 to 6.45, Z statistic = 5.41  $p < 0.0001$ ). The results from the DBST taken by the pharmacies demonstrated that 12 patients were identified as having a reactive test, 23 were identified as having a negative test, 7 DBST for patients were not processed by the laboratory because of a missing CHI number and 1 sample was not processed as being a duplicate

### Conclusion

This initial quasi-experimental evaluation of DBST in community pharmacies found that a far greater proportion of ORT service users took up the offer of a test, compared to the offer of a test from a wide range of providers, over a longer time period. This study provides an indication that the provision of DBST from community pharmacies is both a feasible and effective method of recruitment.