



Dry Blood Spot (DBS) testing in injecting drug users.

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INTRODUCTION

Intravenous drug use (IVDU) is widely recognised as the main transmission route of the Hepatitis C virus (HCV) within the U.K. In Scotland around 1% of the general population have been infected with hepatitis C compared to 0.5% in other parts of the UK.

People who inject drugs (PWID) account for over 85% of those diagnosed with HCV. Despite being the group at greatest risk of infection and onward transmission, regular testing data was not adequately available for this population.

AIM & OBJECTIVES

Provide yearly DBS testing to PWID to identify recent HCV infection to this high risk group.

Allow appropriate harm reduction advice in an attempt to minimise onward transmission.

Facilitate better engagement with PWID who are often deemed “too chaotic” to engage with treatment services.

Normalise HCV / Blood Borne Virus testing within this high risk, targeted population.

METHODS AND MATERIALS

- DBS testing was initiated in July 2009 in Drug Treatment and Needle Exchange services in our area. Staff in regular contact with the target population were trained to perform DBS testing.
- Data was collated on each test result and if/when results relayed to patient, including where follow-up HCV PCR bloods tests were required to establish active infection.

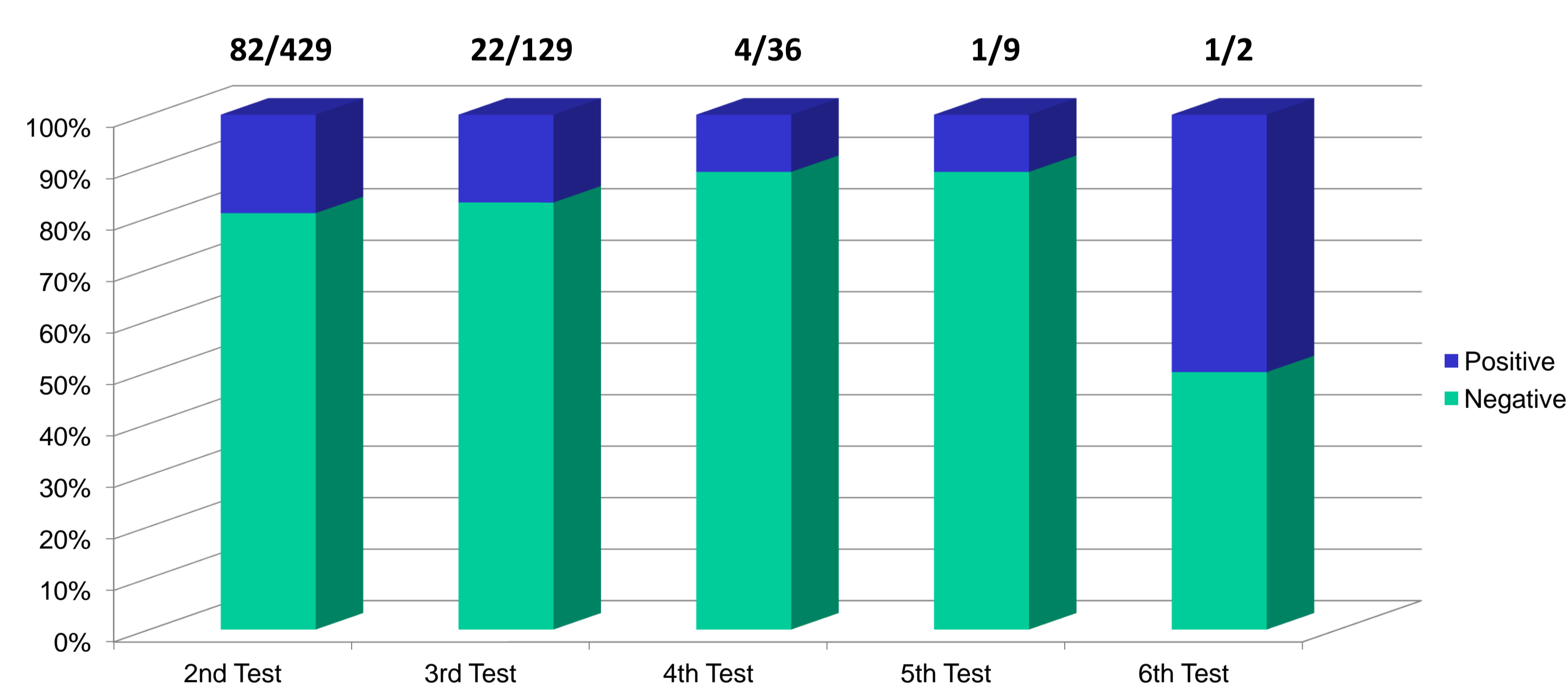
RESULTS

HCV antibody status was established in 2630 DBS tests over a time period of 6 years. 94% of patients returned for results.

Where low risk of HCV transmission factors were identified at time of test (tattoo, sexual risk and prison screening), 8/312 (2.6%) were HCV antibody positive.

IVDU was identified as the primary risk factor in 88.1% (2318/2630) of all tests on 1671 individual patients. 29.2% (678/2318) were identified as HCV antibody positive. HCV PCR results were obtained in 88.5% (600/678) of cases with 403/600 (67.2%) being positive.

429/1671 (25.7%) of those active PWID whose initial DBS test was HCV antibody negative, returned for repeat test(s). Graph 1 displays the proportion of antibody positive DBS test results at the time those tests were carried out.



Graph 1: Proportion of repeat DBS test

CONCLUSIONS

- DBS testing is an effective diagnostic tool in a high risk population where venous sampling proves challenging.
- Results reveal a 20% per annum risk of HCV seroconversion within a needle exchange environment with 110/429 (25.6%) of those active PWID are now HCV positive despite a previous negative result.