



INTRODUCTION

Testing for HIV results in access to treatment, care and leads to improved outcomes for persons infected with HIV. Furthermore, being aware of your HIV status can help to prevent onwards transmission through behaviour change.

In the UK, it is estimated that 13% of people living with HIV are unaware of their infection, with significant difference by risk group¹. Increased testing, particularly among persons at higher risk of HIV, could help reduce this figure. UK testing guidelines published by the National Institute for Health and Care Excellence (NICE) recommend a HIV test following a diagnosis of hepatitis B or C^{2,3}.

We investigate to what extent these guidelines are being followed using PHE Sentinel Surveillance of Blood Borne Virus Testing (SSBBV) and the national HIV database.

METHODS

HIV testing information was extracted from SSBBV for all adults (≥ 15 years). The first positive test for HCV antibodies (anti-HCV), indicative of being ever infected, or hepatitis B surface antigen (HBsAg) indicative of a current infection were identified for persons testing between 2010-2014.

Persons diagnosed with HIV prior to their hepatitis diagnosis were identified, and excluded, through linkage with the national HIV database using deterministic and probabilistic methodologies. Persons diagnosed with HBV via antenatal screening were also excluded.

CD4 at HIV diagnosis was used to estimate date of HIV-infection using a back-calculation method.

RESULTS

Between 2010 and 2014, 32,114 persons tested positive for anti-HCV and 16,086 persons tested positive for HBsAg.

Among persons positive for anti-HCV, of which 48.8% had current infection, 38.7% (12,429) were tested for HIV on the same day as their anti-HCV test, 6.7% (2,158) were tested for HIV within six months and 54.6% (17,527) had no record of an HIV test in the six months following their positive anti-HCV test (Table 1).

Among persons who tested positive for HBsAg, the corresponding figures were 34.8% (5,593), 10.7% (1,722) and 54.5% (8,771).

In persons testing anti-HCV positive, the highest rates of HIV testing within six months were in persons aged between 15 and 29 years (52.4%), with no difference between males and females.

In persons testing HBsAg positive, the highest rates of HIV testing were in males (47.4% vs 42.6%) and persons aged between 15 and 29 years (49.5%).

The requesting service with the highest rates of HIV testing within 6 months of persons testing positive for HBsAg or anti-HCV were fertility (86.7% and 86.9% respectively) and prison services (70.5% and 77.4%).

In a multivariate model of persons anti-HCV positive, an HIV test within six months was less likely with increasing age (aOR 0.9; 95% CI 0.9-0.9) and when testing within primary care services were compared with secondary care (aOR 0.6; 95% CI 0.6-0.7).

For persons with a positive HBsAg test, an HIV test within six months was more likely in males compared to females (aOR 1.2; 95% CI 1.1-1.3), and when testing in primary care (aOR 1.2; 95% CI 1.1-1.3) and sexual health services (aOR 1.9; 95% CI 1.7-2.0) when compared with secondary care, whereas an HIV test within six months was less likely with increasing age (aOR 0.99; 95% CI 0.99-0.99).

Amongst those tested for HIV within six months of a positive anti-HCV or HBsAg test, 1.9% (284/14,587) of persons anti-HCV positive and 2.4% (174/7,315) of persons HBsAg positive tested HIV positive.

Of the remaining persons with no record of a HIV test within six months of their positive hepatitis test (anti-HCV: 17,527, HBsAg: 8,771), 13 (0.1%) and 10 (0.1%) persons respectively were subsequently diagnosed with HIV. Three-quarters (74%) of whom were diagnosed more than 12 months after their hepatitis diagnosis.

Among those diagnosed with HIV after six months, 31% (4) and 40% (4) were estimated to have been infected with HIV at the time of their hepatitis diagnosis.

Table 1. HIV Testing within six months in those positive for anti-HCV or HBsAg, England, 2010-2014

	All Hepatitis Positive	No HIV test within 6 months (%)	HIV tested within 6 months (%)	HIV tested on the same day (%)
All	16,086	8,771 (54.5)	1,722 (10.7)	5,593 (34.8)
Speciality				
HBV¹				
Primary care	6,016	3,290 (54.7)	1,126 (18.7)	1,600 (26.6)
Sexual health	3,284	1,396 (42.5)	97 (3.0)	1,791 (54.5)
Secondary care	6,746	4,059 (60.2)	497 (7.4)	2,190 (32.5)
All	32,114	17,527 (54.6)	2,158 (6.7)	12,429 (38.7)
Speciality				
HCV				
Primary care	18,287	10,833 (59.2)	1,282 (7.0)	6,172 (33.8)
Sexual health	3,279	1,508 (46.0)	98 (3.0)	1,673 (51.0)
Secondary care	10,123	4,993 (49.3)	752 (7.4)	4,378 (43.2)

¹ excluding all persons diagnosed with HBV following antenatal screening

DISCUSSION

Over half of persons testing positive for anti-HCV and HBsAg did not have an HIV test within the subsequent six months, despite the recommendation by NICE that an HIV test should follow a diagnosis of hepatitis B or C

As a result, opportunities were missed to diagnose persons co-infected with HIV, engage them in appropriate HIV care with access to treatments and offer education on HIV risk reduction strategies.

Persons who were tested in the subsequent six months, regardless of hepatitis virus, were more likely to be younger, and for HBsAg more likely to be male.

HIV-testing rates following a hepatitis diagnosis were higher in sexual health services, however less than a fifth of hepatitis cases are diagnosed within this setting and more needs to be done to encourage HIV testing following a hepatitis diagnosis in other clinical settings.

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