

Testing for blood borne viruses in the emergency department of a large London hospital

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1. Chelsea and Westminster Hospital NHS Foundation Trust
2. Imperial College Healthcare NHS Trust

Declaration of interests

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Background

- UK NICE¹ guidelines *recommend routine HIV testing in the emergency department (ED) in areas of high diagnosed background prevalence*
- Identification of hotspots of HCV may improve access to DAAs
- Chelsea and Westminster Hospital ED has around 22,000 adult patients attending per year

Background

Early data from retrospective, irreversibly-unlinked, anonymous, seroprevalence survey

Samples from individuals who had tested for HIV via an ED testing program

	Number	%
Total	500	
Anti-HCV IgG	15	3.0
HBsAg	8	1.6

Methods

Study design

- Seroprevalence surveillance study
- Opt-out

Study population

- 16-65 year olds attending the ED
- Standalone HIV test vs BBV test
- Nov 2015 to Dec 2016

Laboratory assays

- Abbott Architect
- HIV-1/2 Ag/Ab Combo, anti-HCV IgG, HBsAg Qualitative II

Cost analysis

- Laboratory cost for each positive diagnosis calculated:
total number of tests x cost per test / no. of positive tests

Patient Information Sheet

Patient Advice & Liaison Service (PALS)

If you have concerns or wish to give feedback about services, your care or treatment, you can contact the PALS office on the Ground Floor of the hospital just behind the main reception.

Alternatively, you can send us your comments or suggestions on one of our comment cards, available at the PALS office, or on a feedback form on our website www.chelwest.nhs.uk/pals.

We value your opinion and invite you to provide us with feedback.

T: 020 3315 6727

E: cwpals@chelwest.nhs.uk

John Hunter Clinic Referral

Please accept:

as a walk-in for: an HIV test
 a full sexual health screen

Agreed by Dr Ann Sullivan

Patients can also book an appointment via the dedicated call centre on 020 3315 6699.

Chelsea and Westminster Hospital

369 Fulham Road
 London
 SW10 9NH

T: 020 3315 8000

W: www.chelwest.nhs.uk

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Speak to your clinician



Chelsea and Westminster Hospital **NHS**
 NHS Foundation Trust

Testing for blood borne viruses in the Emergency Department

Are you aged 16–65? If so, please read this leaflet



Testing for blood borne viruses in the Emergency Department

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A blood borne virus (BBV) is a virus that someone carries in their blood and can pass on to someone else. These viruses include HIV, Hepatitis B and Hepatitis C.

We recommend that everyone attending this Emergency Department is screened for BBV—if you are having a blood sample taken we will test it for HIV and Hepatitis B and C unless you tell us you do not want to test.

HIV (Human Immunodeficiency Virus) is a virus that affects the immune system and causes AIDS. HIV is now a very manageable condition with medication. Treatment is very successful but it is most successful if the infection is identified at an early stage.

Hepatitis B and C are viruses that infect the liver. If detected early, they can be successfully treated. If undiagnosed both viruses may lead to scarring of the liver, liver failure or liver cancer. Partners of people with Hepatitis B can have vaccinations to protect them against catching the infection.

All of us may be at risk of BBV and no one can assume their status without having a test. We recommend everyone takes this opportunity to have a test.

Please keep this leaflet for your reference.

Contact information

Health Advisers
 John Hunter Clinic for Sexual Health
 369 Fulham Road
 London SW10 9NH

Mon–Fri, 9:30am–5pm (Wed, 12:30–5pm)
 T: 020 3315 6155

Information about the BBV test

We recommend that everyone who attends the Emergency Department (ED) is screened for BBV. You can ask any questions you may have and you do not have to have the test. The test looks for the presence of antibodies (proteins) and antigens (viruses) in the blood that may indicate whether or not you are infected with HIV, Hepatitis B or Hepatitis C. These are screening tests. The result may be negative, which means you do not have a BBV infection, or reactive, which means you require further tests to confirm if you have a BBV. Taking the test is confidential. The test and the result will appear on your hospital record. Having the test and testing negative has no implications for insurance or mortgage applications.

If you feel you may have been at risk of acquiring a BBV recently, you should have a test today. However because the tests can take some time to become positive you should retest in the future. The time between the risk and the repeat test is 4–6 weeks for HIV, 6 weeks for Hepatitis B and 6 months for Hepatitis C. This can be arranged via John Hunter Clinic next door (see opposite page for contact information).

Receiving your test results

It is essential that you verify with your clinician in the ED that the telephone/mobile number on your ED patient card is the correct number. Results will be available two weeks after testing.

If your test result is reactive—or if we need to speak to you for any other reason such as technical problems—you will be contacted by a member of our Health Adviser team at John Hunter Clinic for Sexual Health. We will not routinely contact you about a negative result. You can confirm a negative result in one of the following two ways:

- Send an email to chelwest.testing@nhs.net including your name, date of birth and hospital number, and state: 'Please send me my BBV test result'.
- Call our answerphone on 020 3315 6123 and leave your name, date of birth, hospital number and contact telephone/mobile number, and state: 'Please call me back about my BBV test result'.

Results

BBV opt-out testing in ED

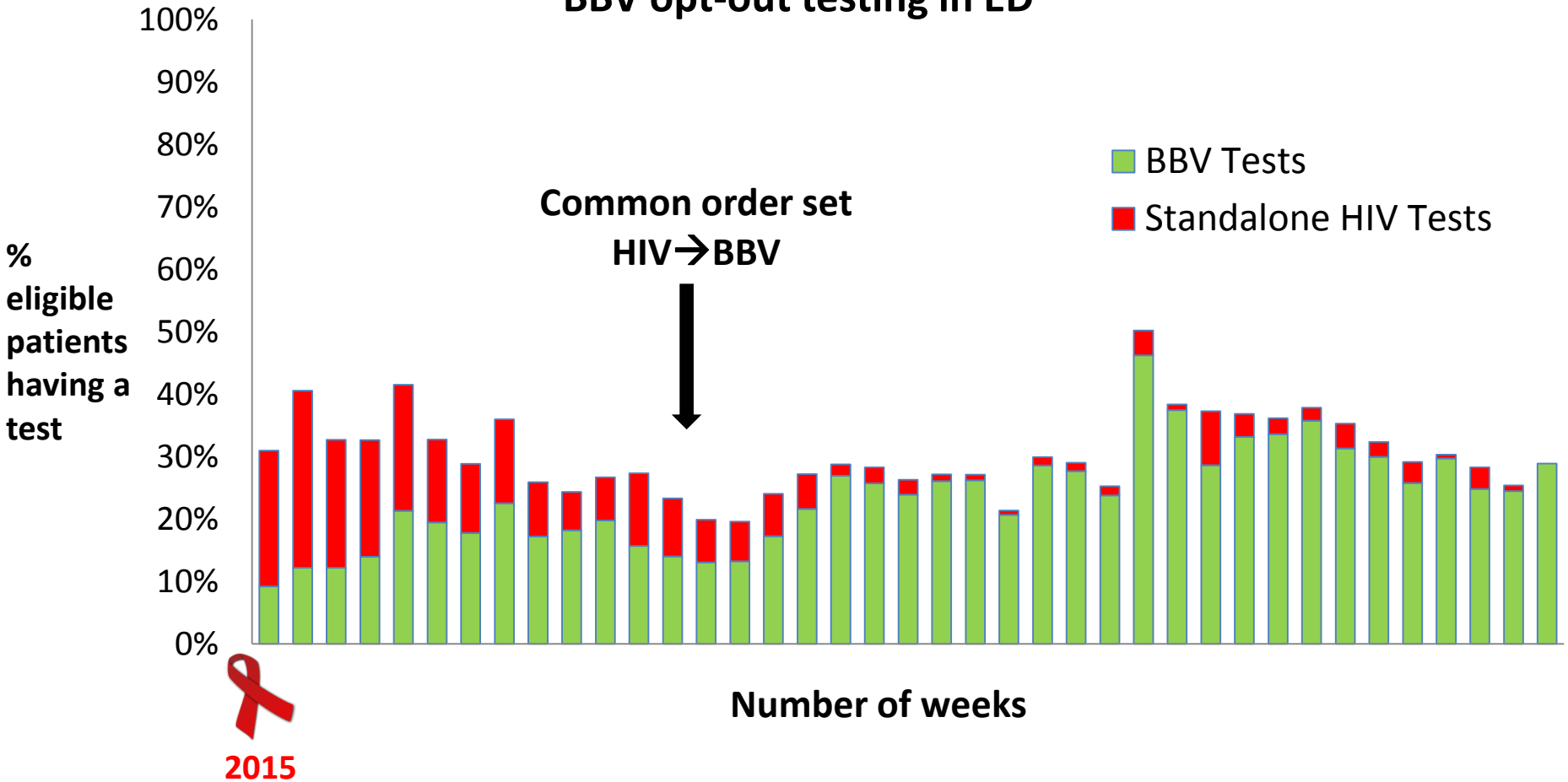
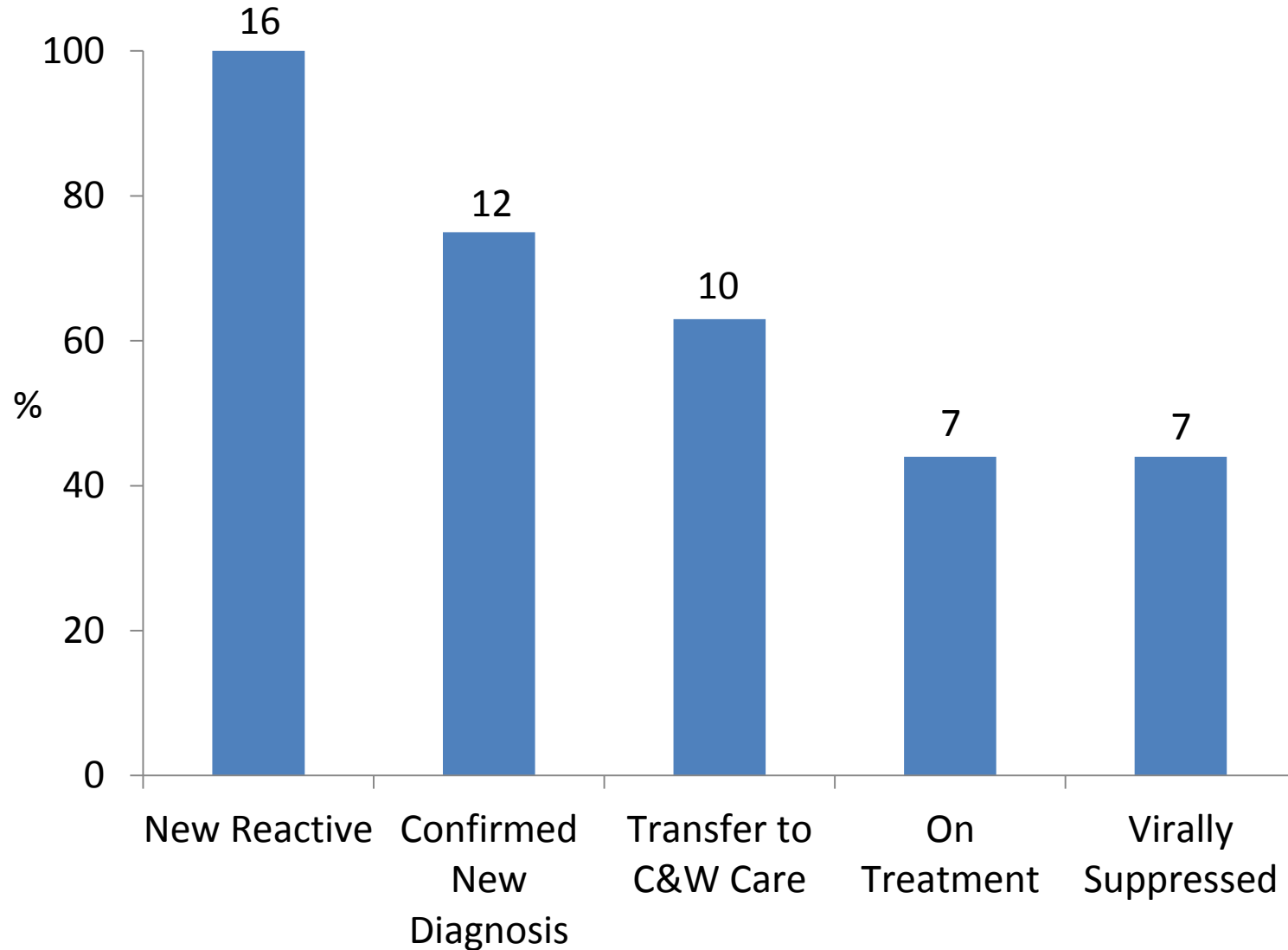


Table of BBV test results

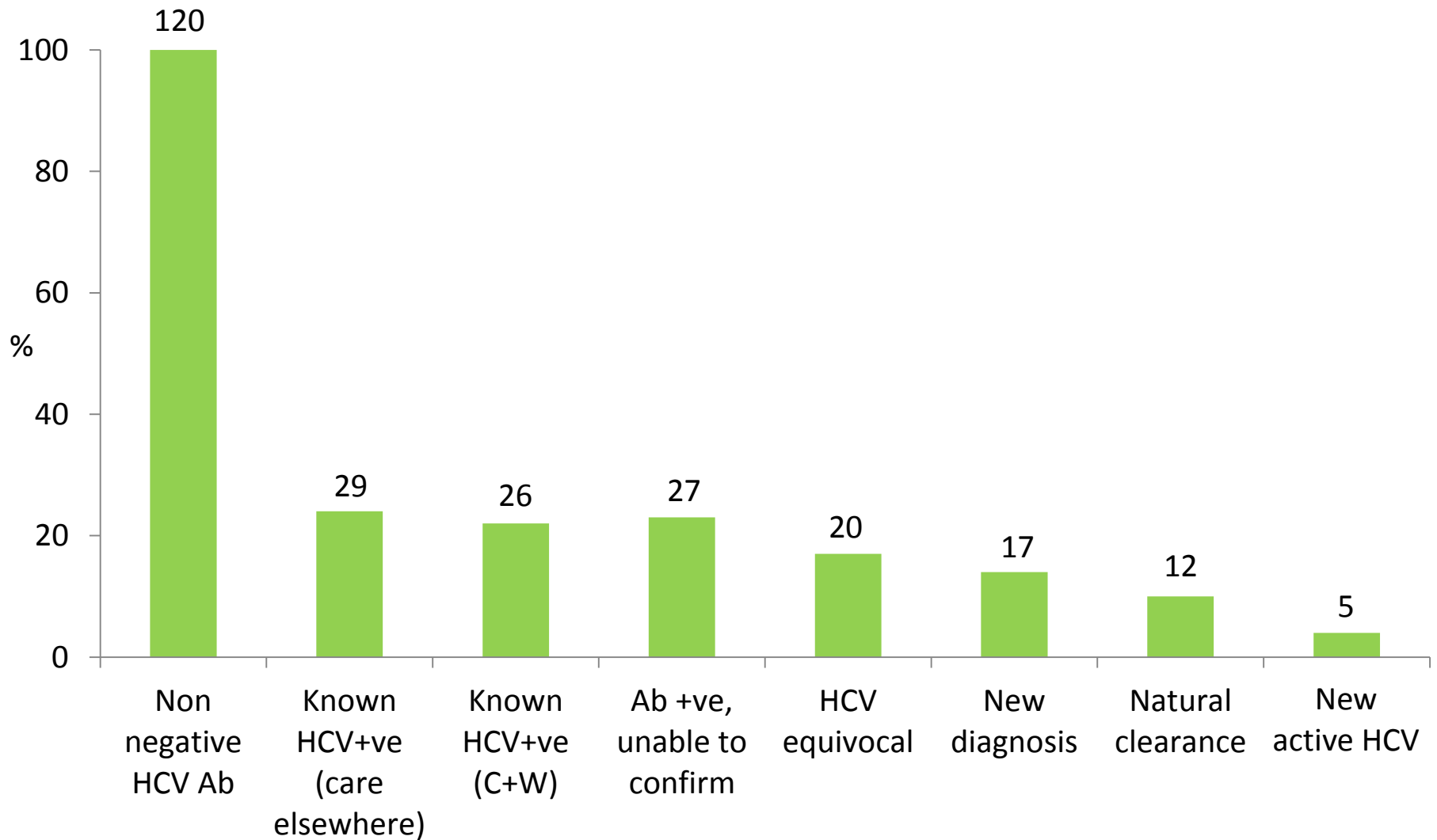
	Total no. tests	No. positive tests	No. 'new' reactive tests	Confirmed new diagnoses	% New positives	Unable to confirm
HIV	8216	88	16	12	0.15 - 0.19	4
HCV	6921	120	44	*17	0.25 - 0.64	27
HBV	6921	36	12	10	0.14 - 0.17	2

*17 HCV Ab positive of which 12 were RNA negative

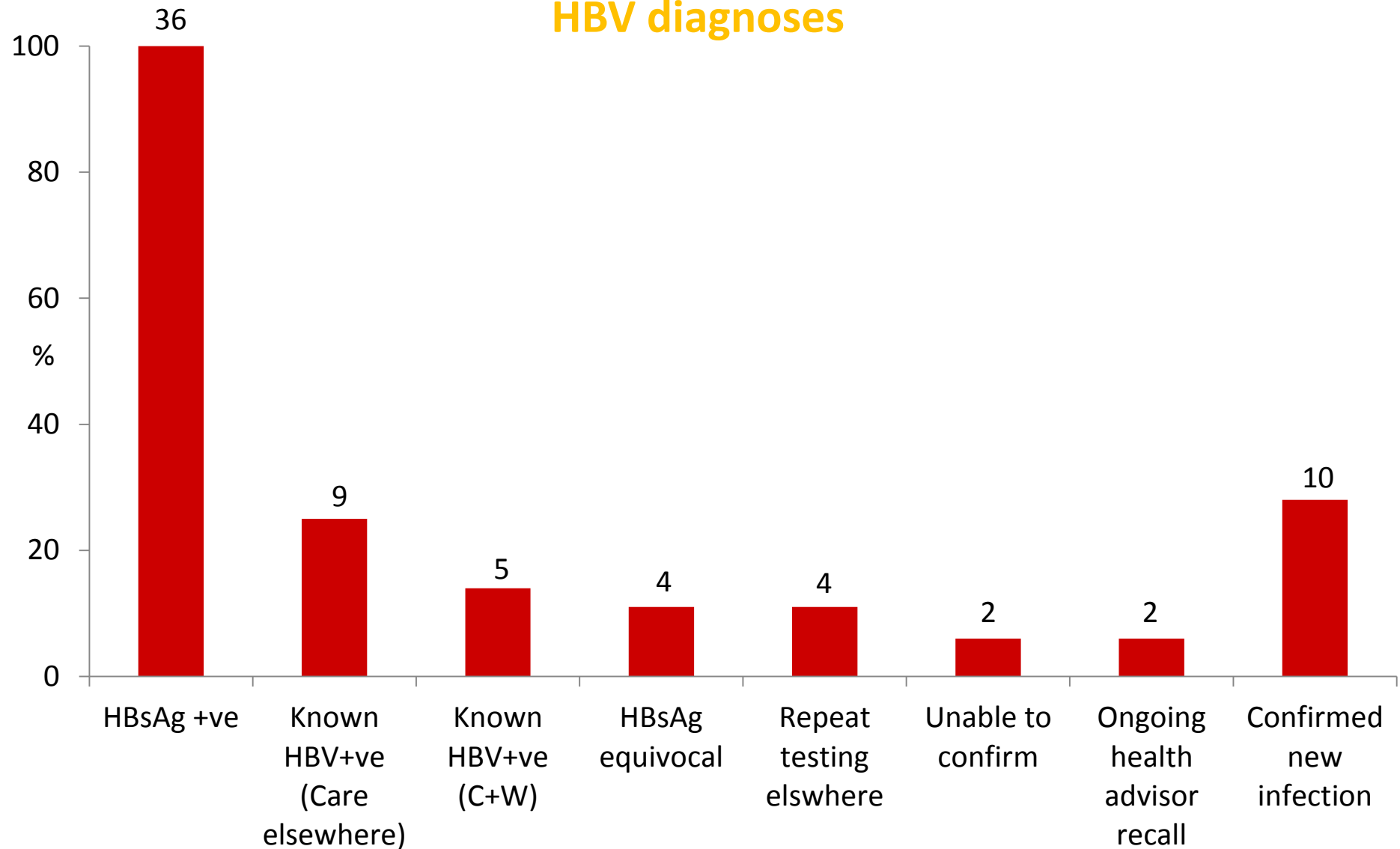
HIV: cascade of engagement in care



HCV diagnoses



HBV diagnoses



Results

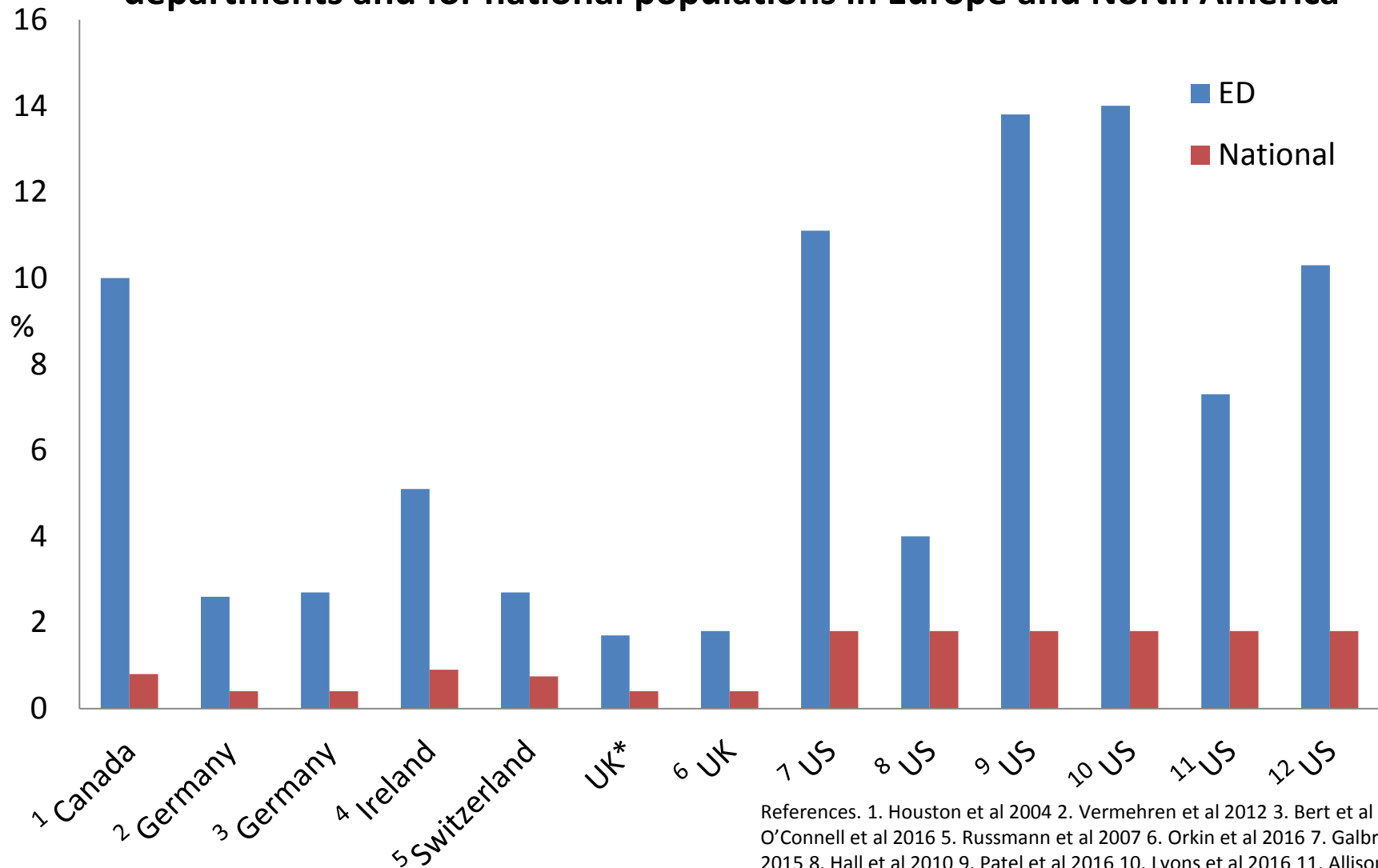
Laboratory cost per diagnosed new infection:

HIV £3350

HBV £2520

HCV £5860

Seroprevalence of anti-HCV IgG for attendees of urban emergency departments and for national populations in Europe and North America



References. 1. Houston et al 2004 2. Vermehren et al 2012 3. Bert et al 2016 4. O'Connell et al 2016 5. Russmann et al 2007 6. Orkin et al 2016 7. Galbraith et al 2015 8. Hall et al 2010 9. Patel et al 2016 10. Lyons et al 2016 11. Allison et al 2016 12. White et al 2016

*current study

Discussion

BBV testing was incentivised through:

- Electronic patient record BBV prompt and common order set
- Involvement of ED staff including a testing champion
- Weekly prize for the clinician requesting most tests
- Weekly performance reports

Limitations:

- Unclear why 73% of eligible patients were not tested
- Clinical and demographic data were not presented
- For anti-HCV IgG positive cases, 23% could not be confirmed

Conclusions

- Of eligible ED patients, 27% received a BBV test
- Proportion of positive tests higher than UK seroprevalence
- Barriers to upscaling of testing need to be identified
- Further work on cost effectiveness of BBV testing is required

Acknowledgements

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HINTS Study Team

HiE

NIHR NWL CLAHRC

OptTEST Partners and CHAFAEA