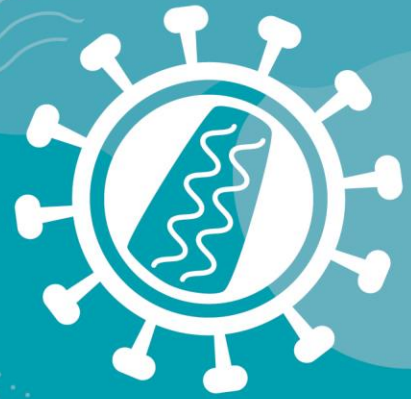


Laboratory implementation of Emergency Department Blood-Borne Virus (EDBBV) opt out screening in a London tertiary centre



Conflict of Interest

In relation to this presentation, I declare that I have no conflict of interest

Speakers are required by the Federation of the Royal Colleges of Physicians to disclose conflicts of interest at the beginning of their presentation, with sufficient time for the information to be read by the audience. They should disclose financial relationships with manufacturers of any commercial product and/or providers of commercial services used on or produced for patients relating to the 36 months prior to the event. These include speaker fees, research grants, fees for other educational activities such as training of health professionals and consultation fees. Where a speaker owns shares or stocks directly in a company producing products or services for healthcare this should also be declared.

Background

- In 2021 the Department of Health and Social Care announced "Towards Zero: the HIV Action Plan for England - 2022 to 2025¹" on testing:
 - Aim to reduce transmissions of HIV by 80% by 2025
 - Commitment to zero new transmissions of HIV by 2030
- Four core themes: Prevent, test, treat and retain
- Focus on testing:
 - Increase in testing in high prevalence areas
 - Introduction of opt-out screening in A&E departments in high and very high prevalence areas
- £20 million funding over 3 years from NHS England and NHS Improvement (NHSEI) provided for opt-out screening in Emergency Departments

Primary Prevention



Condoms



PrEP



Biomedical intervention

HIV Testing



HIV testing



Partner Notification

Secondary Prevention



Link to / retention in care



Peer support



ART



U=U

Empowerment and Wellbeing



Knowledge and empowerment

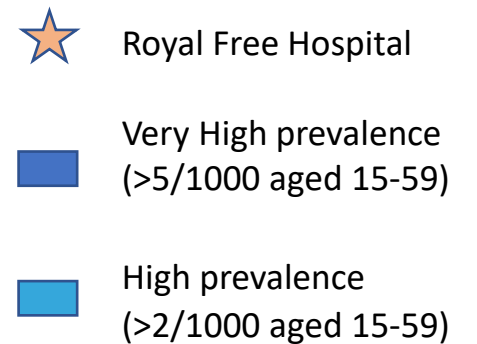
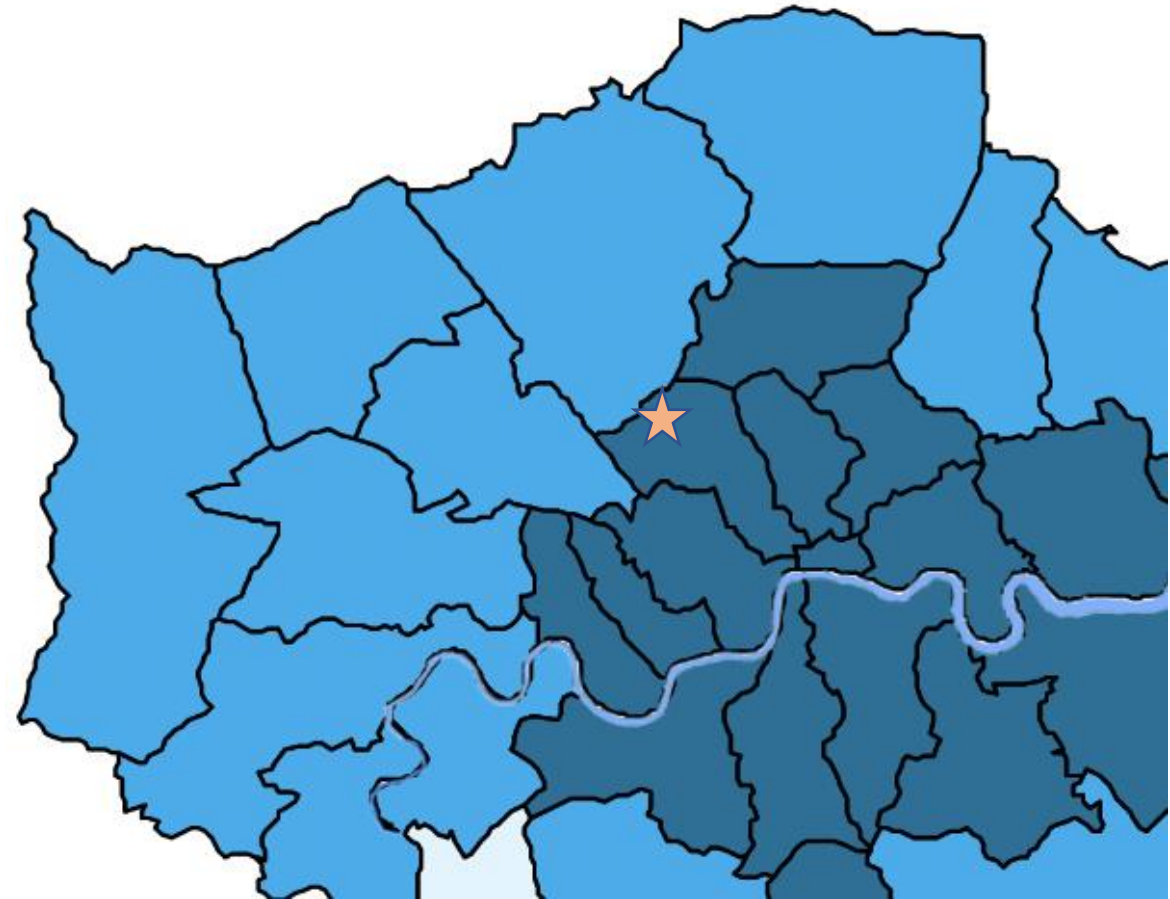


Quality of life

¹ <https://www.gov.uk/government/publications/towards-zero-the-hiv-action-plan-for-england-2022-to-2025/towards-zero-an-action-plan-towards-ending-hiv-transmission-aids-and-hiv-related-deaths-in-england-2022-to-2025>

Royal Free Hospital

- Tertiary centre in London Borough of Camden
 - Very high prevalence area
 - 8.5/1000 HIV diagnosed prevalence rate aged 15-59¹
 - Neighbouring boroughs very high (>5/1000) or high (>2/1000) HIV prevalence¹
- Rise in late diagnosis of HIV (CD4 <350) in London:
 - 45% (254/566) people diagnosed with HIV in London had a late diagnosis in 2021
 - 33% (270/816) in 2019²
- Opt-out Emergency Department Blood-Borne Virus (EDBBV) screening introduced in April 2022



1. Towards Zero: the HIV Action Plan for England - 2022 to 2025. Annex B: Local authorities with high or very high HIV prevalence (2019)

2. HIV testing, PrEP, new HIV diagnoses, and care outcomes for people accessing HIV services: 2022 report

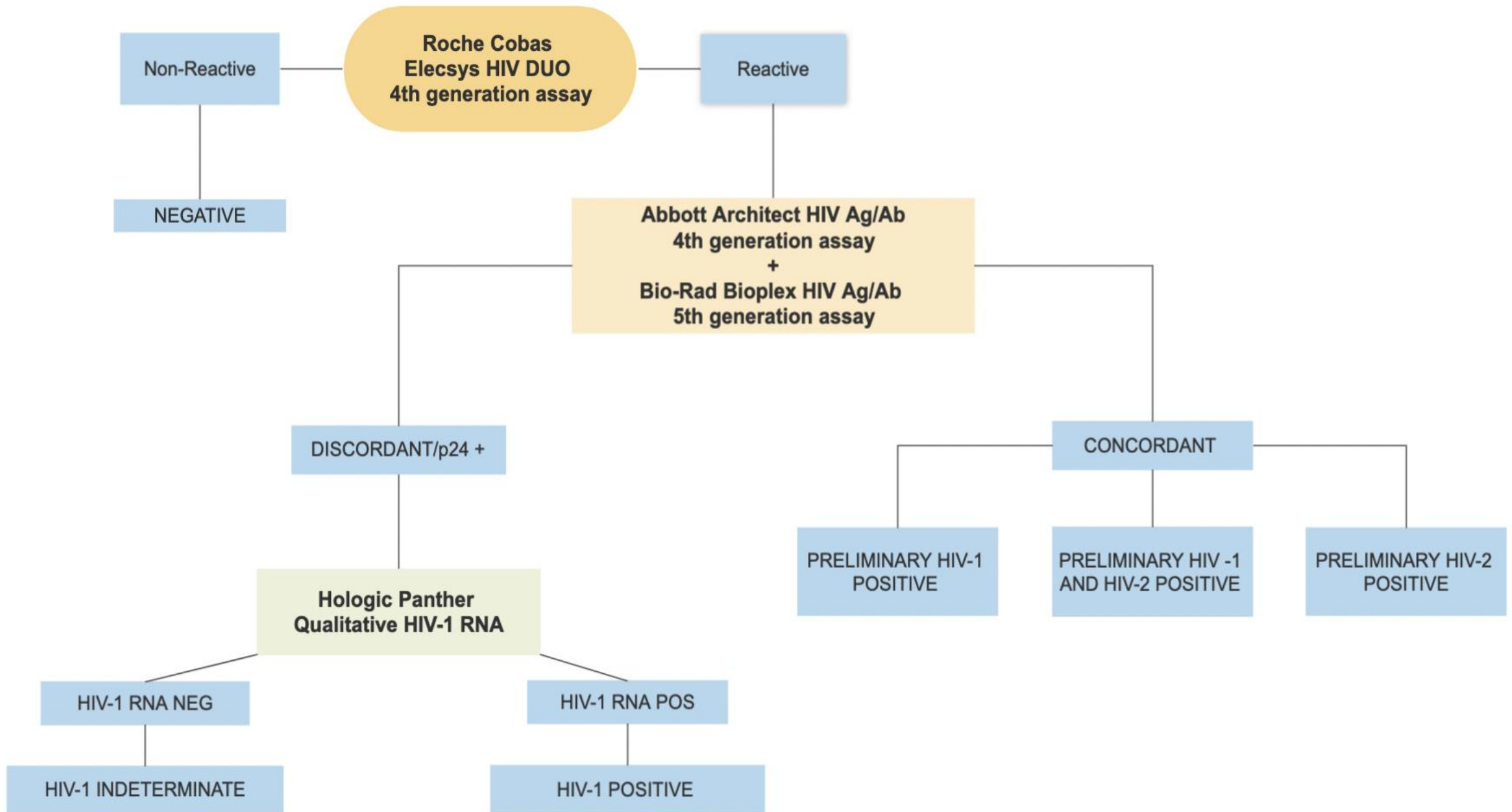
<https://www.gov.uk/government/statistics/hiv-annual-data-tables/hiv-testing-prep-new-hiv-diagnoses-and-care-outcomes-for-people-accessing-hiv-services-2022-report>

Aims

- Analyse laboratory aspects of EDBBV HIV screening, including diagnostic testing pathways
- Review local outcome data from EDBBV HIV screening
- Develop guidance for laboratory development to support further rollout of EDBBV HIV screening

Methods

- Laboratory data for all ED attendees >16 years old tested for HIV through opt-out EDBBV screening between April to August 2022 reviewed
- Laboratory HIV serological and molecular assay results examined
- Laboratory results correlated with clinical notes to determine whether positive results were known PLWHIV or new diagnoses



Laboratory results notification

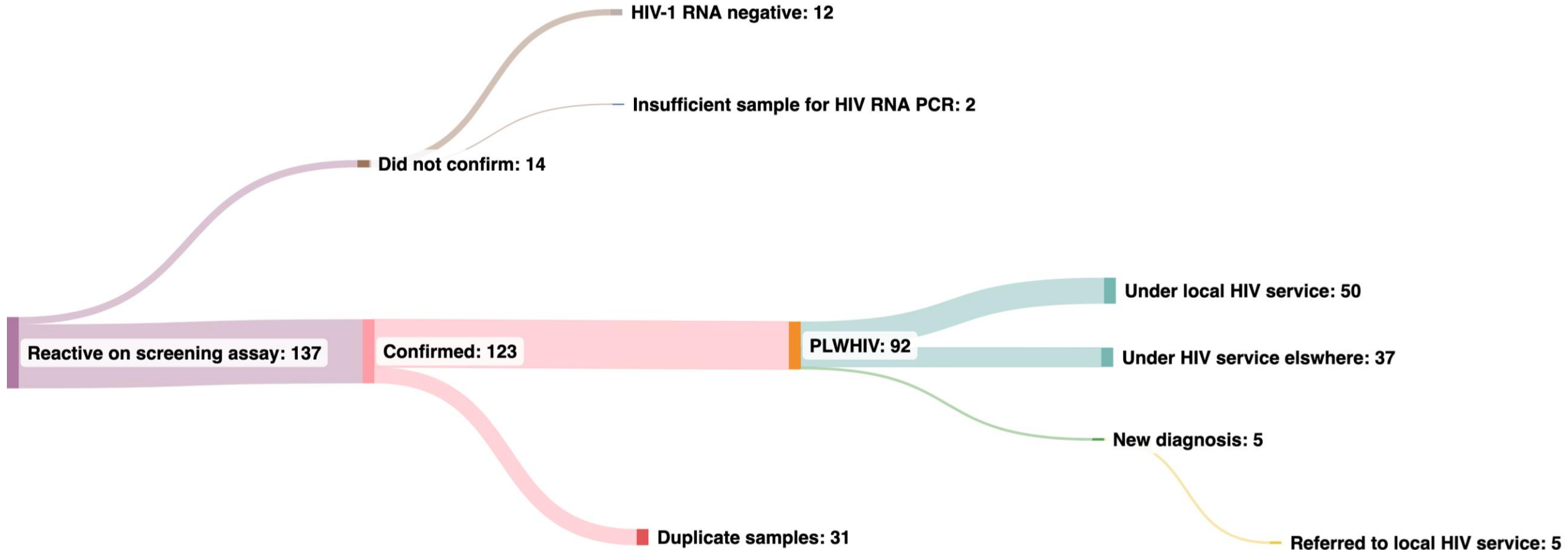
BBV Screen Positives (AE)

[List will also show Equivocal, Indeterminate, and Not Tested results for 28 February 2023]

HosoNo	Source	Full Name	Dob (Aae)	LabNo	BookedDate	Max_Auth	TFC	TestName	Result
####	ED	#####	####	#####	Fri 24-Feb-2023	Tue 28-Feb 11:22	HIVG	HIV 1 & 2 Antibodies.....	Positive
							HIVQ	HIV-1 Qualitative RNA.....	DETECTED
							HBSA	Hepatitis B 's'Antigen.....	Negative
							HCVG	Hepatitis C IgG Antibody.....	Negative
							ACC	CLINICAL COMMENT	~
							ACC	CLINICAL COMMENT	Preliminary HIV-1 antibody positive result.
							ACC	CLINICAL COMMENT	This result needs confirmation by either a repeat
							ACC	CLINICAL COMMENT	second clotted sample for repeat testing or a plasma
							ACC	CLINICAL COMMENT	sample for HIV-1 RNA PCR. Please refer the patient to ICDC.

Results

12,495 EDBBV HIV antibody screening tests were conducted in total



Laboratory Aims

- Provide a definitive HIV screening result for patients through use of laboratory assays and algorithms that optimise sample volume received
- Assist clinicians in management of patients with reactive or indeterminate HIV screening results through provision of both serology and molecular testing from initial sample
- Streamline laboratory pathways to reduce HIV testing turnaround time and deliver valid results for patients in a timely fashion
- Reduce stigma in ED through not requesting patient HIV status prior to screening and utilising laboratory management of confirmatory serology assays for known PLWHIV

Laboratory Recommendations

Prior to EDBBV HIV screening implementation:

- Co-ordination between local HIV service, Emergency Department, Virology/ Microbiology clinicians and laboratories essential to establish screening pathways
- Review of laboratory capacity, testing algorithms and optimisation of testing methods required to ensure patients and HIV clinicians receive valid screening results in a timely fashion
- Review of laboratory IT rules to assist in management of PLWHIV known to centre to ensure that repeat HIV confirmatory serology testing not routinely undertaken
- Electronic results notification pathways from laboratory to clinicians for HIV positive, insufficient and indeterminate results should be developed

Summary

- EDBBV HIV screening is an invaluable method of increasing diagnosis of PLWHIV and reducing late presentations
- There are a number of considerations prior to introduction of EDBBV HIV screening and engagement with key stakeholders is essential
- Communication between laboratory and clinical colleagues is key to ensuring appropriate notification of results and patient engagement with HIV services, ultimately improving experience and outcomes
- Expansion of EDBBV HIV screening is recommended to further centres in UK



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- Dr Tanzina Haque, Virology Consultant
- Dr Dianne Irish, Virology Consultant

Ian Charleson Day Centre (ICDC), Royal Free Hospital:

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- Dr Tristan Barber, Consultant in HIV Medicine and Institute for Global Health, UCL
- Jessica Pinto, Junior Sister
- Sarah Edwards, Lead Nurse
- Alan Hunter, HIV data manager

Emergency Department, Royal Free Hospital:

- Dr Russell Durkin, Emergency Department Consultant

Health Services Laboratories (HSL)

