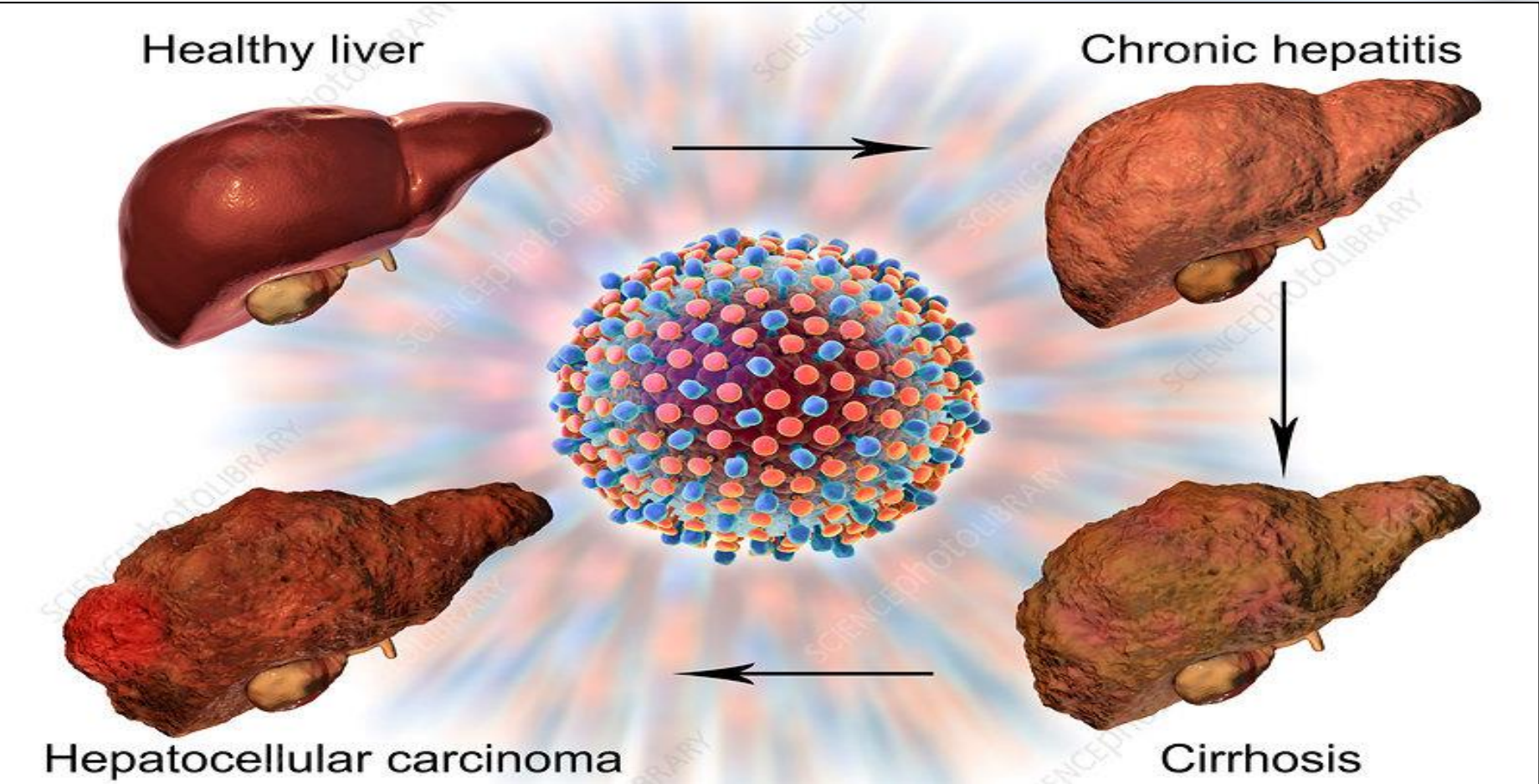


SIX-MONTH SNAPSHOT: LABORATORY TRAINED STAFF TAKE POINT OF CARE TESTING INTO COMMUNITY SETTINGS



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Background

To help achieve the World Health Organisation (WHO) viral hepatitis and HIV elimination in Wales, a small team of laboratory trained healthcare professionals use scientific knowledge and principles to implement Hepatitis Virus C (HCV) point of care testing (POCT) into high-risk environments across Wales to get hard-to-engage individuals tested and treated.

We perform both POCT and Dried Blood Spot Testing (DBST), training users across Wales to do the testing also.

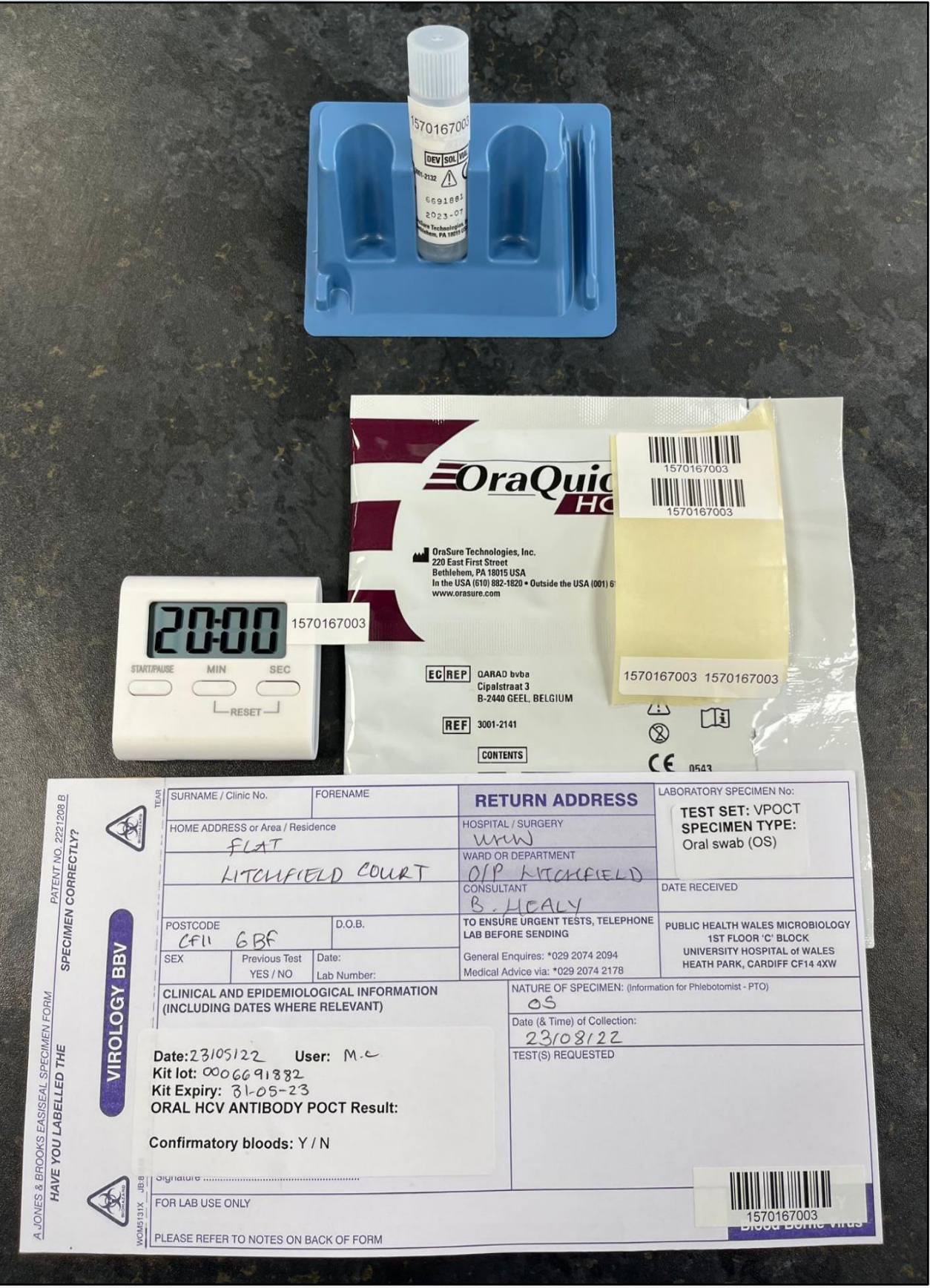
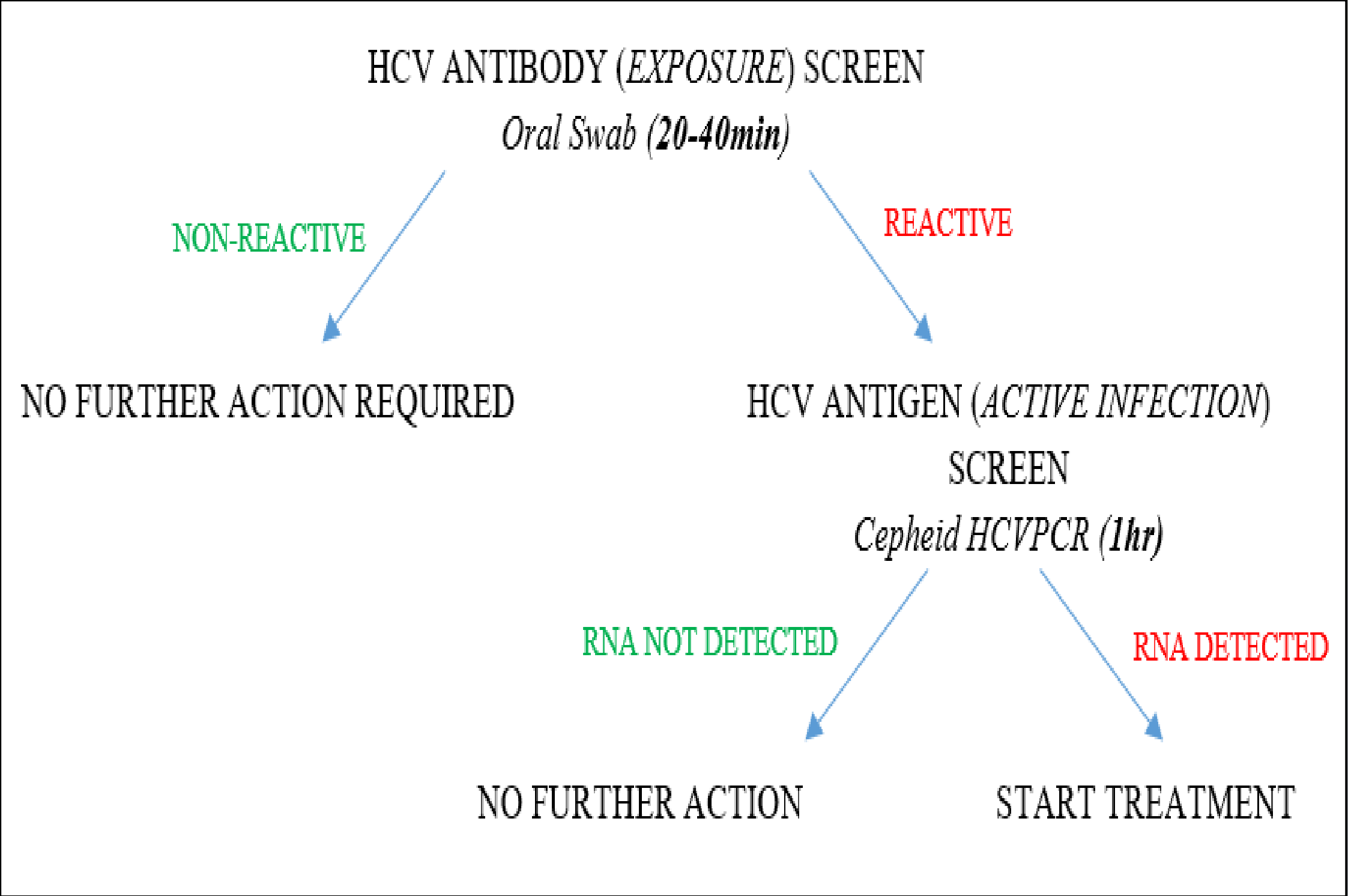
This pathway, using innovative methodologies and working in new multi-disciplinary collaborations, has revolutionised blood borne virus (BBV) testing in these previously hard-to-reach population.

A snapshot of 6 months in our discipline includes routine testing in prisons, mass screening via High Intensity Test and Treat (HITTs) in pop-up clinics in hostels, homeless shelters as well as Drug and Alcohol Centres.

Method: The OraSure, OraQuick® Rapid HCV Antibody test, DBST and Cepheid HCVPCR

A two-tier testing approach is used; OraSure swab screens for HCV Antibodies. Reactive (antibody positive) results are followed up by a HCV PCR, using capillary blood (250µL,100µL) on the Cepheid GeneXpert machine to confirm an active HCV infection. Results are quantified by a viral load (UI/mL) in one hour.

DBSTs screen for HIV, HBsAg, Anti-HCV, Syphilis (4-day result turnaround) – HCV reactivities are reflex tested for HCV PCR. Any positive results are sent to the local health-boards BBV team for treatment. We also signpost to relevant services, needle exchanges and give harm reduction advice, contributing to reinfection prevention.



POCT Practice

During our mobile outreach, POCT HITT projects, we use the two-tiered testing approach, bringing the Cepheid GeneXpert into community to set up a “POCT Shop”.

Patient details are noted in a logbook and a form. Data is inputted into an all-Wales clinical IT system, as well as a secure spreadsheet, for future reference and easy accessibility for the appropriate. The portable nature of POCT is vital in these projects and improves accessibility to healthcare for at-risk populations.

Mouth swabs and finger-prick sample types are advantageous for patients with poor venous access and/or needle phobia, making BBV screening more inclusive. Moreover, DBST allows for any co-infections to be picked up which may affect the patient's treatment.

We work closely with prescribers who rapidly provide treatment, allowing better linkage to care.

Results

HMP Parc: >1600 men were screened using via POCT over 7 days, resulting in >95% of the prison population being screened. Anti-HCV reactive patients received a confirmatory Cepheid HCVPCR and were referred for treatment. They were also offered DBSTs. Overall, **1806** tests were performed.

During this 6-month period the following POCT tests were performed across Wales:

Test Site Category	Sites	People	POCT	Anti-HCV +	PCR	RNA	DBST
Criminal Justice (inc. HMP)	6	3233	3067	176	283	58	32
Homeless Shelter, Hostel	14	139	115	13	34	6	108
Homeless, SMU, UKR Arrivals	2	300	66	3	64	26	166
Substance Misuse (SMU)	10	130	106	17	16	4	70
Total	32	3802	3354	209	397	94	376

Table 1: Total number of testing sites, tests performed and outcomes across Wales. Including a HITT on an entire Welsh town (Neath), routine services run by the healthcare team at HMP Berwyn, HMP Cardiff and HMP Swansea as well as BBV clinics run by the POCT team.

POCT Conclusion

- Importance of education, essential in breaking down stigma barrier.
- POCT allows for a higher volume of tests to be performed, identifying more patients with active HCV infections who can then be treated.
- Rapid result availability - better linkage to care and reduced loss to follow-up.
- Despite initial expensive investment, POCT saves NHS resources in the long-run; fewer patients with liver disease needing a transplant; also preventing long-stays in hospital.



Thank you to all the dedicated teams using POCT for BBV elimination.

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