



## Serving the underserved: innovative viral hepatitis screening program enables timely detection



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Distinction awarded to team members at Guy's and St. Thomas' NHS Foundation Trust and Viapath Pathology Analytics, in London

Guy's and St. Thomas' NHS Foundation Trust, together with Viapath Pathology Analytics, is closing a healthcare gap for underserved populations across London. Viral hepatitis is recognized as a world-wide public health priority.

Hepatitis B (HBV) and hepatitis C (HCV) can disproportionately afflict those populations with barriers to healthcare access, who frequently only have a point of contact with healthcare in an Emergency Department (ED) visit. Due to the asymptomatic nature of these infections, many patients are unaware of being infected. When detected early, better outcomes may be achieved owing to recent significant advances in the clinical management of viral hepatitis. These barriers to detection in primary care settings require innovative and novel approaches to increase access to both testing and treatment. Without early treatment, serious complications such as liver cirrhosis, hepatocellular carcinoma and even death often occur.

Virologists, epidemiologists, ED physicians, clinical laboratorians, and pathologists collaborated and updated guidelines and processes for HBV and HCV screening of ED patients. They implemented a novel electronic ordering and "opt-out" hepatitis screening program for ED patients using the updated guidelines and processes.

This program also included activation of a community follow-up nurse and the linkage to a care coordinator to more effectively connect appropriate patients to follow-up care. The screening program leveraged the abilities of information technologies to create the test order for appropriate patients, encouraging a high uptake of testing whilst minimizing the impact on busy ED clinicians. This information allowed the laboratory to know whether to test the patients' samples for using highly sensitive assays for HCV antibodies and antigens and HBV surface antigen detection. The screening program has a high participation rate, with greater than 70% of eligible patients opting to have their blood screened.

The screening program has detected previously unknown HBV and HCV infections in ED patients. Many of these patients would not have been diagnosed until much later in the disease when they became symptomatic.

Of the newly diagnosed patients offered linkage, a high proportion were shown to engage in appropriate care (95% of HBV patients and 71% of HCV patients). This linkage to personalized care has reduced disease progression in these patients and has not only resulted in improved patient safety, but also in an estimated 33% lower annual healthcare costs for the patients with previously unrecognized infections.

This process has also improved the satisfaction of treating clinicians. "By screening in the ED we have the satisfaction of caring for people who are underserved and who typically do not receive care until a much later stage of liver disease and almost irreversible," comments Laura Hunter MBChB (Consultant in Emergency Medicine). The increased satisfaction is experienced outside of the ED as well. Dr. Nicholas Price Ph.D., DTM&H (Director of Infectious Disease and Consultant physician) states, "Our involvement at the forefront of this important project benefitting our local community gives us a great sense of professional reward and pride."

This team was awarded distinction by the UNIVANTS of Healthcare Excellence Program ([www.UnivantsHCE.com](http://www.UnivantsHCE.com)) based on its measurable success for patients, clinicians, health systems, and payors. The global honor was assessed by leading global healthcare organizations including IFCC, AACC, EHMA, Modern Healthcare, HIMSS, NAHQ, and IHE through leadership and sponsorship by Abbott Laboratories.

### THREE KEY TAKEAWAYS:

1. Pathways to employ electronic ordering and opt-out strategies can significantly increase testing for HBV and HCV in an ED setting with minimal disruption to emergency patient care.
2. Cross-disciplinary involvement in viral hepatitis screening in the ED increases rates of follow-up and treatment for HBV and HCV which can reduce disease progression.
3. Key performance outcomes for opt-in screening programs can include enhanced patient awareness, greater access to personalized care, increased clinician and administrator satisfaction, and reduced healthcare costs.