

Remote Real-time Community Point-of-Care Testing









As part of the NHS progressive plan, NHS Frimley Health Integrated Care System (ICS) aims to enhance patient care by reconfiguring pathology testing to better serve urgent and emergency care needs. This testing is deployed in diverse non-hospital settings and ensures the delivery of high-quality results under the oversight of accredited pathology and biomedical laboratories. This initiative introduces an innovative solution that aids diagnoses and treatment of patients directly within the community setting, also extending support to paramedics and Hospital at Home teams, which facilitates improved access to essential healthcare services at the point of care.

The solution

Paramedics and Hospital at Home teams now have access to a suite of point-of-care testing (POCT) devices. These devices are automatically connected through Cain Medical’s innovative CMExtender, facilitating real-time transmission of POCT results to the hospital’s Laboratory Information System (LIMS). This integration enables paramedics and Hospital at Home teams to provide mobile, laboratory-grade test results directly in the community, aiding expert clinical decision-making within Biomedical and Pathology services. This improved communication not only minimises unnecessary hospital admissions but also assists in guiding appropriate treatment pathways, expediting time to treatment, and minimising inconvenience to patients.

For instance, a Frimley Hospital at Home Team takes a blood gas analysis reading at the patient’s home. This result is then securely transmitted in real time by the CMExtender to the Laboratory Information Management System (LIMS) at Berkshire and Surrey Pathology Services and other healthcare systems, such as those situated in GP practices. Collaborating with Pathology services, the paramedic confirms a urinary tract infection while ruling out sepsis, leading to localised treatment of the patient.

Evaluation

 <p>The healthcare carer from the Hospital at Home (H@H) team arrives at the patient's home.</p>	 <p>H@H carer is concerned about the patient and wants to perform a blood test.</p>	 <p>Rather than taking a blood sample to the hospital for processing or sending the patient to hospital for a test, the Carer uses a blood gas analyser at the patient's home.</p>	 <p>The CMExtender automatically sends the blood gas result from the analyser through to the pathology department laboratory information system and other healthcare systems, such as GP systems` in real time.</p>	 <p>The pathology clinician is notified and completes the diagnostics of the blood result from the blood gas analyser result.</p>	 <p>From the diagnostic, the pathology clinician enters the outcome into the laboratory information system.</p>	 <p>The H@H carer receives the pathologist's clinical outcome on their laptop.</p>	 <p>Based on the H@H carers assessment and the pathologist clinical assessment, the H@H carer is satisfied that the patient does not need to be sent to the hospital's emergency department.</p>
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Paramedics use the POCT in 25% of patient interactions, typically three times every 24 hours. Having POCT results available at the time of the paramedic’s assessment reduces conveyance to the emergency department by 21%. There is also a 10% rise in the admission of patients where pathology results indicate problems that require urgent treatment, which would otherwise go unnoticed. Streamlined patient journeys provide inherent savings to the service and benefits to patient care. Patients report high levels of satisfaction, and paramedics confirm it adds value in 97% of cases where it is used to support decision-making¹.

About Cain Medical

Cain Medical is proud to deliver device connectivity solutions utilised by NHS Hospital Trusts throughout the UK. Our solutions empower clinical staff to automatically access bedside and point-of-care medical device readings directly from the Hospital Information System. We enable hospital professionals to tap into real-time data from a wide array of medical devices within and more importantly also outside their facilities, such as intensive care units and wider integrated care services, supporting emergency care and Hospitals at Home. For further information, please contact us at info@caomedical.com. We’re here to support your healthcare connectivity needs.

Ref: ¹ Point-of-care testing by paramedics using a portable laboratory: an evaluation, Katy Heaney, Journal of Paramedic Practice, March 2, 2020