

Oxford AHSN case study

Date: Q1 2020/21

Programme / theme: Strategic and Industry Partnerships

Title: Diagnostic tests trialled in community hospital proved to ease winter pressure and increase efficiency

Overview Summary

Wokingham Community Hospital purchased two different Point of Care (POC) diagnostic test devices for their elderly in-patient unit and wanted to evaluate the impact of attaining results more quickly and understand how it could help the nurses make effective decisions regarding treatment.



The Oxford AHSN assisted by reporting the economic cost-consequence analysis of the two tests, determining what the cost benefit would be to the hospital by using Point of Care testing and extrapolate the benefits to the other community hospitals.

QuickRead Go CRP is a rapid blood test for the quantitative determination of C-reactive protein that shows if there is inflammation or infection in the body. Alinity i-STAT is a portable blood testing machine with a cartridge for urea and electrolytes (U&E) that the nurses used to assess the kidney function of the patient.

The tests enabled healthcare professionals to rapidly diagnose patients, and the greatest benefit came in knowing which patients did not need to be sent to the local Emergency Department (ED).

For most of the community hospitals in Berkshire Healthcare NHS Foundation Trust, blood samples are sent to the pathology department. This can often be a lengthy process (with average turnaround time being 24 hours) and can lead to a delay in diagnosis and first-line treatment.

As part of their Better care fund initiative¹, Wokingham Community Hospital introduced the use of two Point of Care (POC) diagnostic test devices namely QuickRead Go CRP and Alinity i-STAT. The blood samples taken from the patients and are immediately tested using the POC devices on the ward. The immediate availability of the results support clinical judgement and helps with a timely diagnosis and appropriate treatment.

Actions taken

The Oxford AHSN performed a literature review and secondary research to identify the current care pathway and provided a cost-consequence analysis to assess the impact and potential benefits of

using the two POC devices in a community hospital setting and assess whether the use of the devices results in net savings across the 5 community hospitals.

Wokingham Community Hospital supplied Oxford AHSN with cost and population data that was used to identify the cost savings by reduced ED referrals from Wokingham Community Hospital due to the implementation of the POC devices in the care pathway.

This analysis will then be used to inform the business case to support the procurement of these POC devices at Wokingham Community Hospital and potentially roll out to other community hospitals in the trust.

Impacts and outcomes

The result of the analysis suggests that the implementation of the POC devices in the community care pathway results in better patient management and cost savings. During the three months that the study took place there was a significant reduction in patient referrals to ED. The total cost saving from the POC devices was ~£10,000 for a three-month period. When the devices were not in use there were a minimum of 30 patients referred to ED. With the implementation of the POC in the care pathway over a three-month period there was a reduction by 83% of ED referrals, with only five patient referrals needed.

POC for both U&Es and CRP was shown to help in better patient management at the Wokingham Community Hospital leading to improved patient prognosis. If the patients are managed efficiently with the quick diagnosis at the community hospital, it helps in the reduced patient referrals to the ED. The study suggests that once admitted, people with a need for social care often experience long stays in hospital, which may increase their risk of experiencing an event with an adverse health impact, such as an infection. The benefit of avoiding emergency admissions may, therefore, be particularly high among people with a need for social care, from the perspective of both the patient and the NHS.

Supporting quotes

Innovator

“Thank you so much for preparing the report and all your support. Myself and Caroline read the full report and it reflects our thoughts of utilizing POCT in community hospitals. We hope to work again with you in the future.”

Deepa Devadas and Caroline Gowlett

Advanced Nurse Practitioner, Berkshire Healthcare NHS Foundation Trust

AHSN

“This project gave us the opportunity of conducting a real-world model and this will improve the patient care pathway at the Community Hospital.”

Dr Mamta Bajre, Lead Methodologist, Oxford AHSN Mamta Bajre, Lead Methodologist, Oxford AHSN

Patient impact

The POC devices are decreasing the time to diagnose illnesses and the patients are getting the correct treatment more quickly. This reduces the pressure on the NHS as the treatment is quicker and often means the patient doesn't have to be transferred to ED for quicker diagnosis.

Plans for the future

Wokingham Community Hospital have evaluated these devices and other community hospitals in the Berkshire Healthcare NHS Foundation Trust are looking at implementing them into the care pathway. No timescales have been set for this.

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