

Oxford AHSN case study

Date: Q2 2020/2021

Programme / theme: Strategic and Industry Partnerships

Title: Oxford AHSN develops the business case for cobas® Liat® influenza test and wins Near Patient Testing award at the UK Diagnostics Summit

Overview Summary

The cobas® Liat® System is a fast, easy-to-use, compact PCR system designed for on-demand testing in point-of-care settings such as clinics, pharmacies, and hospital and satellite laboratories. The Oxford AHSN assisted in the first UK based evaluation of the the cobas® Liat® Influenza A/B test, in the Emergency Department (ED) of the Royal Berkshire Hospital, which provides secondary emergency care for most of Berkshire. The test is a PCR based test using either nasopharyngeal or throat swabs and requires minimal sample preparation. The evaluation aimed to see if the test reduced patient length of stay, reduced antibiotic use and increased the use of antivirals.



The Oxford AHSN project managed the evaluation and provided active, hands-on support. The Oxford AHSN also enlisted York Health Economics Consortium (YHEC) to provide impartial health economics, using the metrics collected during the evaluation and anonymised data. The health economic data was then used to inform the business case for the Trust procuring the tests going forward. Plans to roll out the test in community settings have been put on hold pending a product update to include a Covid-19 test.

Challenge/ problem

Influenza poses a significant healthcare burden during the winter months, especially on stretched ED services. The current UK guidance recommends that patients with suspected flu are isolated as soon as possible, and that, where indicated, anti-viral treatment commences with 48 hours of presentation. The insistence on isolation reduces the flexibility on available beds for patients who do not have flu, so it is important to ensure that patients in those beds actually have influenza. Testing at one of the major points of admission into the hospital also reduces the likelihood of ward closures due to flu. Roche Diagnostics had difficulty in finding an ED that had the appropriate project management resource to perform a full clinical service evaluation, as well as the expertise required to build the clinical evidence needed for a credible business case.

How is the AHSN involved?

The Oxford AHSN assisted Roche Diagnostics in setting up and running their first UK based evaluation. The Oxford AHSN drafted the evaluation protocol, standard operating procedure and specified the data that needed to be collected for the health economics report. The Oxford AHSN also provided the

project management skillset that the hospital couldn't spare and ensured the smooth running of the evaluation.

Once the evaluation was complete, the Oxford AHSN contracted York Health Economics Consortium to perform the health economics on the data collected, which was then used to construct a business case for the future procurement of the test.

The company were provided with a copy of the health economics model, as well as the protocol and information around the issues faced to enable them to compile implementation packs for other ED departments as required.

Impacts and outcomes of the AHSN involvement to date

The health economic data gathered from the evaluation showed a saving of £200 per patient tested, which is in line with other similar short-term evaluations that have been performed elsewhere. Average length of stay for patients was halved from six days to three, and also decreased the amount of time taken from admission to first dose of antivirals from two days to a few hours.

The evaluation has led to the test being procured by the consolidated laboratory service that covers the Royal Berkshire Hospital, and has been spread to the other hospitals that are serviced by Berkshire Surrey Pathology Services (BSPS). There is also an on-going partnership between Roche, the Oxford AHSN, BSPS and the Royal Berkshire NHS Foundation Trust to look at evaluating this test in other areas, especially community care settings, which is currently on hold due to Covid-19. The consortium together with the Newcastle MedTech and In Vitro Diagnostics Co-operative also secured an European Institute of Innovation & Technology (EIT) Health award for ~£2 million to evaluate the cobas® Liat® Influenza A/B test in community settings in the UK and in Belgium, however the project has since been put on hold due to the uncertainty in the funding post 2020 due to the UK withdrawal from the EU.

The evaluation and subsequent community evaluation recently won a Near Patient Testing award at the UK Diagnostics Summit in Manchester in November 2019.

Supporting quotes

Innovator

I can say with confidence that the ED POCT test is the most clinically and cost-effective way of managed flu in my Trust. It was a huge privilege working with the AHSN on this evaluation and thank you for all of your support throughout the project. – **Shabnam Iyer, Medical Lead and Head of Microbiology Department, Royal Berkshire NHS FT**

AHSN

Point of care flu testing had a significant impact on the ED department, especially over the Christmas weekend. The test allowed for rapid, accurate diagnosis of patients, especially those who often present in an atypical fashion, which enabled better patient management and treatment. The success of the ED evaluation allowed us to win an award for EIT Health funding to help support it's further roll out into the community setting – **Ashley Aitken, Senior Programme Manager, Oxford AHSN**

Plans and timescales for spread and adoption

Evidence and template protocols are available for other Trusts who would be interested in implementing this test in their ED departments. The community study is currently on hold due to Covid-19 pressures and uncertainty over the EIT Health funding, but we would anticipate this going ahead in 2021-22 winter season funded by the Oxford AHSN.

Oxford AHSN is keen to discuss this project with any other Trust or AHSN who are looking to implement a POC flu solution in their local hospitals.

Start and end dates

May 2017 to May 2020

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