



King's Mill Hospital Sutton-in-Ashfield



Case Study

Overview

King's Mill Hospital in Sutton-in-Ashfield, is one of three hospitals within Sherwood Forest NHS Trust providing outstanding healthcare from modern facilities across the community to 500,000 people in Mansfield, Ashfield, Newark, Sherwood and parts of Derbyshire and Lincolnshire.

In 2021, the lab successfully validated the Optitrol 3rd Party Serology QC solution and put it into routine use. We are now currently in the process of working with the lab further to enable them to trend Molecular 3rd Party QC results using EDCNET.

The Optitrol solution has enabled the laboratory to have a completely integrated and simplified QC solution, streamlining ordering of customised QC samples, result management and reporting, control limits, Uncertainty of Measurement (MU) reports, troubleshooting and much more.

What problems were you facing?

What were your processes before you implemented the Optitrol range of quality control material from DiaMex?

We used another manufacturers third party QC material, but found that this QC material was expensive and did not cover the full range of serological testing we perform in-house. The QCs did not come with any software, so results had to be documented, trended and reviewed using Microsoft Excel spread sheets produced by laboratory staff.

What problems were you experiencing before you move across?

Difficulties with the supply of third party QC material from previous provider, and cost was very high due to the number of different controls that needed to be purchased in order to cover the full range of assays tested by the department.

Why did you choose to use DiaMex?

DiaMex QC material was chosen for evaluation due to the fact it covered all of our serology assay portfolio, we had an existing relationship with the supplier (AB Scientific), but the main reason was the fact that the material came with the EDC Net software to allow trending and data extraction as standard.

Andy Coultas, Microbiology Service Manager

How did the solution help?

How has the Optitrol solution solved your pain points?

Reduced the amount of serology QC material that needs to be run to cover our assay portfolio, simplifying the third party QC testing performed in serology. With our previous supplier, we had 17 different QCs to run, this has reduced to 11 with Optitrol.

Less QCs to run, but main time saving will come if an interface between the Roche Cobas E801 and EDC Net can be achieved, as this will save the BMS staff having to manually enter QC data into EDC Net.

Better value for money, and due to novation into existing vendor neutral managed service agreement.

Better quality, the %CV values that we have for the Optitrol range of QC material are tighter than with our previous supplier of third party QC material.

Increased productivity?

Not yet I would say, this will come when the interface to Cobas is completed, and when the molecular controls are also online.

What are the main positives you have seen?

The main positive was at our recent UKAS inspection, we had a finding around the trending of IQC results, and using EDC Net has helped us to clear this finding and maintain UKAS accreditation for another year.

Andy Coultas, Microbiology Service Manager



How did you feel about the decision?

What helped make your decision to implement the DiaMEX QC range?

The quality of the verification data we had, plus the costing's and the promise of what the software could do for us were all important in the decision to move over.

How did you convince the Laboratory Management to change to our solution?

Laboratory manager was involved from the start in terms of looking for an alternative third party QC provider for serology QCs, so did not take much convincing! However, advantages in terms of QC trending, financial/supply improvements from previous provider, being able to novate the new provider into the Microbiology managed service contract with Beckman Coulter, and a saving in BMS Staff time all played a role in the laboratory manager approving this change.

What was the key decision that made you want to start using the Optitrol range?

The performance of the material during laboratory verification, the support from our supplier (AB Scientific) and the functionality of the EDC Net software.

Andy Coultas, Microbiology Service Manager

What has your experience been working with us?

I have found working with AB Scientific to be a pleasure and very productive for us as a laboratory. We have regular meetings with both Aaman and Christopher, and they have always been responsive when we have given feedback or asked questions. They are both prompt at replying to emails, and happy to meet to discuss any issues. The orders from AB Scientific are shipped promptly and without issue. The Quality Control material received is of good quality, and I like the fact that the products are tailored with specific analysers/assays in mind, this makes it easier for the laboratory staff to know which QC needs to be run on which platform.

Throughout the whole implementation, the feeling has been that AB Scientific have worked in partnership with us in order to improve and simplify the running, monitoring and trending of internal quality control procedures.

Andy Coultas, Microbiology Service Manager



How was the technology received?

How easily did the King's Mill Microbiology team adapt to the QC material into their routine work?

Fairly easily, the BMS staff in serology are used to running and documenting third party QC material. The only thing that has changed is that they are running different QC material to cover the different assays, and instead of recording the results in a spreadsheet, the staff login to EDC Net and enter the results directly into the software.

How was the onboarding process?

Fairly straightforward, excellent support from Kylie at the NRL in setting up the software for our assays.

What difficulties did you face in the transition process?

Initially we had incorrect QC material for one of our VIDAS assays, we had Optitrol Red when we should have been using Optitrol Orange. However, this was picked up by the NRL when setting up EDC Net, and very quickly resolved by AB Scientific when we raised it with them. When setting up the EDC Net software for our molecular assays, we were initially told that Zeptomatrix QC material was supported by EDC net, however when we looked to set our assays up with NRL, this was not the case. This means that in order to get the best out of the software and utilise it for molecular as well as serology, the use of alternative QC material for molecular assays will have to be considered.

What advice do you have for another customer implementing DiaMex QC into their work process?

I would suggest you look at your platforms and the amount of different QC material that you are purchasing, along with how you currently demonstrate IQC trending within your serology section initially. If purchasing a large amount of QC material to cover your assay portfolio, and/or a lot of work goes into manually trending QC information using Excel or another manual method, then it will be worth considering DiaMex QC. I would aim to see the option for molecular QC trending as a bonus, rather than the main reason for moving over at this stage.

Andy Coultas, Microbiology Service Manager

Outcome

One of the biggest advantages of moving to the DiaMex QC products is using the EDC Net software, it is possible to have an annual calculation of the uncertainty of measurement for each assay.

This is a better estimate of MoJ as it is based on live data rather than QC replicates, but crucially, can be extracted from the data the laboratory has already produced throughout the year. This will save BMS time certainly in having to run QC replicates for the MoJ calculations, and then having to write up the findings.

We have saved money switching, because we have novated the supplier of this third party QC material into our vendor neutral managed service contract, meaning we can reclaim the VAT back for any expenditure. Also, reducing the amount of different QC material we need to purchase our portfolio of serology assays has also resulted in a saving. The larger volumes/pack sizes when compared to our previous material, also means the material will last longer, and we will order less often.

The verification of the Optitrol control material showed that the results produced were very tight, with a lower percentage coefficient of variance than the previous manufacturers QC material was verified. The results produced were more consistent and tighter to the mean, so I would say, the quality of our work has increased.



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