

Pathology Service Improvement

- 32% increase in throughput
- 90 minute avg. improvement in time until results available to GPs and clinics
- 65% reduction in excess work hours

The Background

UK Learning NHS Trust provides emergency and non-emergency services to East Surrey, North-East West Sussex and South Croydon. East Surrey Hospital, Redhill has 697 beds, and there are a range of outpatient, diagnostic and planned services at The Earlswood Centre, Caterham Dene Hospital and Oxted Health Centre in Surrey, and at Crawley Hospital and Horsham in West Sussex. In total there are circa 3,500 staff, with an annual budget of £300m.

The trust needed to reduce overall costs, as they had overspent by £20,000,000. They faced issues with processing samples and routine maintenance of analysers in the haematology and microbiology processing laboratories. Due to shift patterns and staff availability, this significantly impacted capacity.

The reception staff felt overworked and felt that sample delivery in the late afternoon was a problem due to cross-functional problems with the facilities department that owned the delivery and collection process. Additionally, there were issues with sample expedition from wards to the specimen reception by the porters. Many improvement initiatives had been tried, with limited success due to lack of involvement from the specimen reception staff, who felt these measures were imposed without their input.

"Since carrying out the improvement activity, our reduced sample results availability time has been a major benefit to local clinics and GPs and pathology department staff; by reducing the extra time worked by our team on the end of the working day, we have had a marked improvement in morale. We're achieving a higher volume of samples processed in a shorter time period by adjusting the way we work, focusing on removing the delay from sample processing.

Now the team have the momentum to keep improving the way we work, as the results show the value of incremental improvement and what can be achieved when the whole team get involved. Great work from all involved!"

Specimen Reception Manager



Challenges

At a first glance, the Pathology department appeared well organised and effective in the way they were processing samples through the specimen reception, however upon closer inspection, several issues were found.

Workload in the afternoon was excessive due to late delivery of samples from the local GP and clinics in the surrounding area. The hospital's own A&E had many issues on the prioritisation of emergency samples. Pathology reception staff were working well beyond contracted hours in order to process samples.

Additionally, porters were collecting samples from wards and delaying delivery to specimen reception by up to 2 hours, leading to degradation of blood samples.

The layout of the reception area did not have a logical process flow. Items and benches were positioned in available space, rather than considering the flow of the samples.

The booking in area was in a remote location in another room, which led to extra batching of samples to achieve an economical quantity that could be transported to reduce walking backwards and forwards.

Collection routes for facilities department were not matched to the times the pathology department was available for processing samples. The driver's routes were arranged around breaks and lunchtimes, with a final return drop off at 16:00 to coincide with the end of the driver's shift. This led to uneven work flow and staff waiting for drop offs. As a result, centrifuges were under-utilised and sat idle for extended periods waiting for the next bulk batch of samples to be delivered.

A close-up, slightly blurred image of a microscope's objective lens, showing the numbers '25' and '122' and the 'UIS' logo. The lens is positioned over a slide on a microscope stage. The background is dark and out of focus.

Solutions

The specimen reception area was assessed and ways to improve the flow and expedition of samples through the area were planned. The area was rearranged according to these specifications.

A prioritisation system for samples was introduced to the A&E department of the hospital in order to address the issues around this area that slowed down delivery of samples.

In order to work better with both internal changes (such as driver timetables being moved) and external factors (eg. GP opening times), and as a result of the improvements in productivity, staff timetables were adjusted.

Impact on Performance



32% increase in throughput



65% reduction in excess work hours



Last drop brought forward by 50 minutes



90 minute average improvement in time until results available to GPs and clinics



Department reorganised to consider process flow