



Redesigning ways of working at Queen's Hospital

Rapid process improvements to boost equipment repair and maintenance by the EBME team

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Driving a culture of continuous improvement

With around 8,000 assets to manage, the Siemens Healthineers EBME team at Queen's Hospital (Barking, Havering and Redbridge University Hospitals NHS Trust) needed support to refresh their ways of working and improve efficiency.

Context

The Siemens Healthineers Electrical and Biomedical Engineering (EBME) team at Queen's Hospital manages the repair and maintenance of around 8,000 medical equipment assets.

The department needed a fresh look at their ways of working, to streamline processes, reduce the burden of tasks during and post-pandemic, and reenergise the team. The EBME team approached Siemens Healthineers Consulting to design a more 'Lean', sustainable and quality-driven service.

Siemens Healthineers and Queen's Hospital enjoy the benefits of a 33-year Value Partnership. This covers the supply, maintenance and management of all medical equipment, helping to improve clinical workflows and cancer pathways with the latest technology.

What we did

The consulting team sought to transfer knowledge and practical skills in process optimisation, as well as 'Lean' principles and tools, to embed a culture of continuous improvement. The team worked closely with Queen's Hospital stakeholders to collaboratively develop a vision for a new way of working, empowering them to share ideas for improvement and then put them into action.

How we did it

Once the vision was clear and approved, the programme was split into multiple workshops, focusing on process mapping, roles and responsibilities, information flows, and Lean workshop layout using the 6S system which promotes workspace productivity and safety.

The team also held Rapid Improvement Events (RIEs) in five areas: *stock management, acceptance processes, corrective processes, Planned Preventative Maintenance (PPM) jobs, and the triage process*. RIEs are events focussed on improving a particular process or area and actioned by those who carry out the relevant process.

The consulting team created an RIE project management plan with resource allocation and a timeline. To maintain motivation and traction, a new RIE was scheduled to run

every two months. A team lead and process owner were allocated for each RIE and engineers were set multiple actions, in addition to their day-to-day work.

To address issues as they arise, a visual management board was created and is now used in regular team huddles to easily present the situation 'on the ground'.

Results

1. The **stockroom** is now effectively managed, and no longer stores excess or unused items, reducing inventory costs as well as clearing floor space.
2. **Acceptance processes** were streamlined with email templates and the use of digital tools, resulting in quicker throughput and less duplication.
3. For the **corrective process**, a new workshop layout with workstations around the periphery, and administrative staff at the entrance, allows engineers to safely work on large items.
4. Automated **PPM** scheduling has improved communication and workload, since users receive notice of PPM dates and make equipment available.
5. The team worked with an assigned engineer to create a **triage process**, including a toolkit and a script to guide administrative staff when logging jobs. All enquiries now receive a same-day response.

The programme's achievements include:

- 22% reduction in acceptance process steps
- 50% reduction in time spent on triage admin
- 25-35% drop in individual engineers' pending jobs
- 20% fewer repairs coming back to the workshop
- Engineers are upskilled, morale and motivation have improved, with an understanding of individual roles

Testimonial

"Siemens Healthineers continues to be one of the most important partners to the operations of our Trust. Their attention to detail and focus on quality means I am always assured that our clinical equipment is of the highest standard and maintained to the best standards."

Sean Greene, Director of Estates and Facilities
Barking, Havering and Redbridge University Hospitals NHS Trust