Case study: Galway University Hospital, Ireland

Optimizing clinical operations through Lean methodology

How an Irish hospital enhanced its processes, streamlined operations, and improved the patient experience

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Siemens Healthineers Value Partners for Healthcare Consulting conducted two Rapid Improvement Events (RIEs) together with the radiology team at Saolta University Health Care Group, Galway University Hospital (GUH), Ireland. A RIE is a short-term, high-impact tool rooted in Lean methodology. The five-day teamwork session enables the planning, testing, and implementation of immediate process and workflow improvements. After 30 days, a review of results showed that the RIEs created sustainable outcomes and additional value for GUH:

**Interventional Radiology (IR) procedures now ordered via the intranet – a 25% increase**

95%

**Handovers between the CT team and the wards**

-83%

**Waiting time for CT priority two and three inpatients**

-11%

**Enhanced staff satisfaction and patient experience, due to operational improvements**

**Correctly prepared IR patients**

+47%

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**The challenge**

GUH radiology staff recognized a need for change to keep pace with the evolving healthcare environment. However, constraints within Ireland’s hospital system, in addition to high management turnover in the department, made it difficult to change processes and improve workflows. Furthermore, the involvement of multiple stakeholders for each patient examination added to the inertia. This led to a high number of cancellations, unprepared patients, delays, and growing waiting lists. Both staff and patients were increasingly dissatisfied and distressed.

**The objective**

The transformation project focused on the scheduling and patient preparation processes for CT and IR. The aim was to improve communication between stakeholders, remove unnecessary process steps, and motivate staff to embrace a culture of change and continuous improvement.

**The solution**

Siemens Healthineers introduced GUH to the concept of Lean transformation, an approach that enables the delivery of increased value for patients as well as staff. The starting point is a ‘value stream analysis’ to identify non-value-adding activities within a specific process. Opportunities for improvement are then identified, and the desired state defined. Finally, the vision is turned into reality by means of RIEs.

**The bottom line**

A Value Partnership with Siemens Healthineers delivers fast results that make a real difference. At GUH, the success of the new processes was apparent after just one week. A 30 day review confirmed sustainable change. Staff is proud of what they have achieved and patient care is considerably better.

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1 There are three levels of priorities for inpatients at GUH. Priority one patients are more urgent and get appointments earlier than priority two and three patients.

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Simpler Consulting – our trusted partner in Lean consulting:

For the execution of Improvement Events Siemens Healthineers collaborates with Simpler Consulting, an IBM Company.
Rapid Improvement Event – Five-day Lean transformation process

Day 1: Gap analysis
Clarification of difference between current and desired state

Day 2: Solution scoping
Generation of ideas for bridging the gaps

Day 3: Rapid experiments
Testing theoretical solutions in real daily routines

Day 4: Fine tuning and implementation
Implementation of solutions and minor adjustments

Day 5: Adoption of solutions and standard procedures

Interventional Radiology
- Standard Operating Procedure (SOP)
- Standard procedure form
- New policy for transparent scheduling
- New workflow for IR procedure pooling
- Proactive hand-off for first case of the day, the day before
- Visual management board to track patient flow

Computed Tomography
- Hub on individual wards providing a preparation checklist and contrast agent at a standardized location
- Checklist to ensure radiographer receives patient information prior to scan
- Restructured CT schedule to accommodate ward staff availability at busy times and decrease waiting times

“Our Value Partnership with Siemens Healthineers, encompassing the RIE approach, helped bring about significant and meaningful change to solve problems that I had previously thought insoluble.”

Dr. John Bruzzi
Clinical Lead of Radiology, GUH, Galway, Ireland
Key clinical and operational improvements

Galway University Hospital, Galway, Ireland

Interventional Radiology

- Intranet orders increased from 70% to 95%. This buy-in to one consistent approach has optimized clinical operations.

- Patients prepared correctly
  The new streamlined processes enable a more proactive approach to patient preparation, which is now nearly 50% more likely to have been carried out correctly. Hand-off then goes smoothly, saving time for patients and staff.

- 100% of patients scheduled the day before and all parties informed
  Scheduling of patients the day before rose from 60% to 100%. This reduces the need for unexpected administration on the day and facilitates smooth running of the department.

- Pooled patient list established
  A pooled patient list was established for general procedures. Two slots per day on each specialist list are reserved for those patients. This creates flexibility and allows administrators to optimize the booking system.

Computed Tomography

- Handovers between departments
  The average number of interactions per patient between radiology and ward staff decreased from 41 to 7. This has improved the working environment and freed up staff time to focus on other priorities.

- Inpatient CT scans
  The average number of inpatient CT scans increased from 33 to 53 per day. This reflects the greater efficiency of the department and helps to cut waiting lists.

- Waiting time for inpatients
  The waiting time from request to scan for priority two and three inpatients dropped from an average of 52 hours to about 46 hours. This supports the shift towards earlier diagnosis and delivers outcomes that matter to patients.

- Telephone-related stress reduced
  Before the Value Partnership, it could be hard for staff to do their job as the phone was constantly ringing. The new processes have greatly reduced these calls. Thus, staff is more relaxed and better able to deliver excellent patient care.

Do you want to collaborate with Siemens Healthineers Value Partners to optimize your operations?
Get in contact:

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About Value Partnerships

Siemens Healthineers Value Partnerships combine our strength in holistic medical technology management and digitalization into a long-term performance-oriented engagement focusing on the creation of value. We offer Lean Transformation either as a standalone service, or embedded in a Performance Excellence program. Our Rapid Improvement Events serve as an excellent tool to deliver measurable results within a short period. Conducted repetitively, they enable clinical teams to live a culture of continuous improvement – turning performance into high patient value. With our sustainable consulting and transformation offering as well as our future-proof design planning, we are well positioned to co-create a solution with and for you, which will generate clinical, operational, and financial benefits.

Siemens Healthineers Value Partnerships help you optimize operations today, expand with new capabilities tomorrow, and advance the level of innovation in your network.

Disclaimer
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The scientific overlay on the title is not that of the individual pictured and is not from a device of Siemens Healthineers. It was modified for better visualization.

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