

**Case study: Galway
University Hospital, Ireland**
**Optimising 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 Advisory Services 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:

↑
95%

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

↓
-83%

Handovers between the CT team and the wards

↓
-11%

Waiting time for CT priority two and three inpatients¹



Enhanced staff satisfaction and patient experience, due to operational improvements

↑
+47%

Correctly prepared IR patients

The challenge

GUH radiology staff recognised 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. The staff are proud of what they have achieved and patient care has improved.



Simpler Consulting – our trusted partner in Lean consulting:

For the execution of these Improvement Events Siemens Healthineers collaborated with Simpler Consulting, an IBM Company.

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.

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 standardised 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



- University Hospital
- 664 beds, 3,400 staff
- 38,500 inpatients and 271,000 outpatients
- 24/7 service delivery, acute service, supra regional center for cancer and cardiac services

Interventional Radiology

↑
+25%

Intranet orders

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

↑
+47%

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.

↑
+40%

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 optimise the booking system.

Computed Tomography

↓
-83%

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.

↑
+57%

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 optimise your operations?

Learn more:



[siemens-healthineers.co.uk/value-partnerships](https://www.siemens-healthineers.co.uk/value-partnerships)

About Value Partnerships

Siemens Healthineers Value Partnerships combine our strength in holistic medical technology management and digitalisation 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 programme. 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 optimise operations today, expand with new capabilities tomorrow, and advance the level of innovation in your network.

Disclaimer

The products/features and/or service offerings (here mentioned) are not commercially available in all countries and/or for all modalities. If the services are not marketed in countries due to regulatory or other reasons, the service offering cannot be guaranteed. Please contact your local Siemens Healthineers organisation for more details. The results described herein by customers of Siemens Healthineers were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption), there can be no guarantee that other customers will achieve the same results.

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