

## CASE STUDY

# Radiology Improvement Programme Delivered during COVID-19

### Background

This Trust is one of five trusts in Northern Ireland. It is responsible for the delivery of health and social care services to a population of 470,000. Acute services are provided by two hospitals – Antrim Area and Causeway – and community based services across four additional localities.

The Radiology Department undertakes approximately 280,000 diagnostic examinations including MRI, CT, Nuclear Medicine, Fluoroscopy, Ultrasound, Plain Film, Dexa scanning and Breast Imaging. These take place in the Antrim Area Hospital, Ballymena Health and Care Centre; Causeway Hospital, Coleraine; Mid Ulster Hospital, Magherafelt and Whiteabbey Hospital.

The Radiology team consists of consultant radiologists, radiographers, radiographer assistants, administration, portering and domestic staff all of whom play an essential role in delivering a safe and effective service.

### Study Findings

Meridian were already working with the Trust in Endoscopy and Community Mental Health when they were invited to conduct a study in Radiology. The study was conducted over one week, primarily focusing on the reporting performance of the Radiologists and the utilisation of the multiple imaging rooms. The current Radiology reporting system showed a lack of control over activity and expectation, leading to large variations in performance and high outsourcing/insourcing costs. The scanning template slots showed a re-adjustment was required to meet commissioned activity and over-resourcing per scanner.

The programme sold was an intensive 11 Week Radiology Improvement Project.

The overall goals of the project were as follows.

- Redefining booking templates using post-COVID guidance and requirements.
- Creating dynamic Target Operating Models to be flexible with incoming demand.

- Moving the Radiologists to a 'Push' Allocation system and reduce Waiting List initiatives and outsourcing spend.
- An overall transparent way of working that clearly aligns demand with capacity.

### Project

Meridian worked alongside the Service Manager, Assistant Service Manager and Modality Managers through a series of 1:1 meetings and CPD accredited training workshops. During these various sessions, a new way of working was designed and tailored to each area of the Radiology Department to ensure it was running efficiently and effectively.

The key focus was to implement management controls to effectively allocate the work to Radiologists using a performance target system. In Radiology, a flexibility matrix and Allocation Tool was created, using defined Reporting Norms to begin pushing the appropriate scans to the Radiologists to ensure the right reports were reported on in the right time by the right person.

Meridian installed Daily Reports within the Imaging Team and Session Summaries for the Reporting Team, which reports on the utilisation of the resources and available capacity. This process is reviewed on a weekly basis in the Weekly Schedule Review Meeting, to ensure the Trust is on target and raise any issues that might cause larger variances. This operational oversight ensures sustainability of the new model to maintain increased productivity.

### Results

The processes introduced and implemented gave the Radiology Management Team better control over their service, as well as visibility of daily individual and team performance and future forecasting and capacity planning.

Due to COVID-19, Meridian worked alongside the Trust to regain capacity for scanning, whilst identifying potential further efficiencies.



Daily and weekly performance review meetings have been embedded to allow a review of 'planned' v 'actual' to identify and mitigate future variances.

The main results of the programme are:

- A creation of dynamic Target Operating Models, to right-size scanning templates in order to recover service value and increase slots by up to 44%

US			
Recovery Plan		Meridian Recovery Plan	
Annual Slots	25,116	Annual Slots	47,996
SBA Commission	52999	SBA Commission	52999
%	47%	%	91%
		Unit Cost for CT	£17.71
		Annualised Improvement - Number of Slots	22,880
		Identified Annualised Improvement - Financial Value	£405,205

- The Radiologists on a work allocation system can complete the same average level of activity within a shorter period of time, enabling a reduction in Outsourcing and Insourcing Sessions.

Radiology - Reporting - Potential Projected Improvements				
	PF	CT	MRI	NM
Average volume of reports over installation	1401.67	303.33	105.67	15.33
Reports over 3.5 hrs	1680.08	363.58	126.66	18.38
Extra reports per week against avg. rostered sessions	278.41	60.25	20.99	3.05
Extra reports per week against job plan	2122.90	76.04	32.91	3.05
Annualised extra reports (x39 weeks)	82793.14	2965.60	1283.64	118.78
Average cost per WLI report	£3.57	£47.44	£49.45	£10
Projected Cost Avoidance	£295,571.50	£140,688.19	£63,476.13	£1,187.81
<b>Total Annualised Reports</b>	<b>87161.16</b>			
<b>Total Projected Cost Avoidance</b>	<b>£500,923.64</b>			

- Behavioural change within the management team and staff enabling the Radiology Department to work proactively rather than reactively.
- The planned improvement was valued at £814,177.

- As a result of the Improvement Programme, the Trust recovered a service value of £2,328,347 and further identified cost avoidance of £1,299,634.28.

## Contact Us

For more information on Meridian's work in healthcare, please contact:

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Meridian Productivity was established 1996, and has been extensively involved in the Healthcare industry across the United Kingdom, Republic of Ireland, Holland, Belgium, Spain and the Czech Republic. Meridian assists clients across the Healthcare environment (private and public) in achieving improved operating efficiencies and performance, through the development of bespoke management and behavioural processes. These processes are all designed and implemented to ensure that our client organisation can be assured of returning the best performance on the resources applied.

We work with about 20 to 25 organisations a year, both in the public and private sectors, helping them to reduce their operating costs, improve their productivity and provide value for money.

Find out how Meridian can benefit your organisation.

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