

# The County Hospital

## Engaging staff helps improve imaging services at Wye Valley NHS Trust

### Who/where

Wye Valley NHS Trust, Hereford, UK. In 2018 the Trust entered into a long-term strategic partnership (LSP) with Philips for Managed Services for radiology that included training on how to improve their service delivery process.

### Challenge

In recent years, the Trust has seen a 10% rise in annual demand for most imaging services and a 50%-60% rise in demand for CT in particular. To meet this rising demand within the NHS targets for turnaround times, the Trust is looking to Philips to help them make best use of their capacity and staff resources and thereby improve the quality and productivity of its imaging services.

### Solution

Results from the data analyses showed highly variable turnaround times across the modalities, especially in MR and ultrasound. To help staff to address these issues, Philips consultants developed and delivered a new foundation level training course for the entire imaging department, covering quality improvement for healthcare organizations. They also delivered a focused improvement project to the MR group in the form of six learn-do training cycles across a 12-week period.

### Results

The new approach to quality improvement is expected to help the Trust improve workflow to increase productivity by 5% - 10% per year. It has also helped engage staff in the improvement process. Looking ahead, the Trust plans to appoint a lead and support ongoing quality improvement for modalities across the imaging department. They are also looking at rolling out the focused improvement project approach to other modalities.

Wye Valley NHS Trust is based in Hereford, UK, and provides healthcare services to its rural community through the Hereford County Hospital and three community hospitals. The Trust has around 3,000 staff members and provides a range of specialist and generalist functions. The Trust provides integrated care and is committed to improve the well-being, independence and health of the people of Herefordshire and across the Welsh border into Powys.

### Improving quality and productivity

In recent years as the patient population has increased, the Wye Valley NHS Trust has seen a 10% rise in annual demand for most imaging services and a 50%-60% rise in demand for CT in particular. Because of its rural location, the Trust also faces challenges in recruiting, attracting and retaining staff. The Trust is looking to Philips to help them make better use of its capacity and staff resources and thereby improve the quality and productivity of its imaging services, while making the Trust more attractive to prospective radiology professionals.

“We want to modernize the radiology department at Wye Valley NHS Trust, bringing in the latest technology and empowering our staff to lead change and truly transform patient care,” said Robert Griffiths, Radiology Services Manager. “We wanted a partner who could help us look at our department from a fresh perspective and help us make a step-change towards improving our department for staff and patients.”

### Focusing on the human side of change

Philips has assisted healthcare organizations across the globe in making improvements in quality, safety, experience, productivity and cost-effectiveness by focusing on the human side of change. “We start with the needs of patients, and then consider the human interactions between those who receive care and those who deliver it to improve the delivery of healthcare services,” said Steve Lee, Healthcare Consultant. “It’s at this point where many process-oriented consultants stop, that our true work begins. We engage in a participative process with healthcare professionals at all levels of the organization to create a shared understanding of issues and encourage them to behave differently so they can make positive and lasting improvements.”

“We made a very specific proposal for the imaging service improvement project: We would assess their starting point, identify where the challenges lay and then help them develop their own capabilities to resolve issues. In essence, we would ‘teach them to fish’, so they could continue to improve performance on their own,” says Lee.

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This customized consultancy approach included the following key phases:

- **Assess** the current level of imaging performance, based on data analysis, stakeholder interviews, observations and a staff survey to establish a baseline and identify critical areas for improvement
- **Co-create** – insights from the assessment were used to guide development of the training plan and select the areas for the focused improvement project(s)
- **Transform**
  - Philips consultants developed and delivered foundation level training to all imaging staff, from radiologist to radiographers and booking clerks. It covered the people aspects, flow principles and the tools of quality improvement for healthcare organizations
  - Philips consultants supported delivery of a focused improvement project to the MR group in the form of six learn-do cycles over a 12-week period, including mapping of the value stream, understanding capacity and demand, and improving the working and patient environment
  - During the entire improvement project, Philips consultants collaborated with the Trust’s clinical and management teams to make prioritized recommendations for improving quality and patient throughput
- **Sustain** – Philips consultants assisted in ensuring that the right data and review practices were in place to support a culture of continuous improvement and sustain the benefits realized

### A shared foundation

A number of issues came to light based on the data analyses carried out by Philips consultants. It showed that imaging department performance across the modalities, especially in MR and ultrasound, was highly variable in terms of turnaround time (request to exam complete). This was a serious issue that could affect the Trust’s ability to meet the turnaround time targets of the NHS, which stipulate six weeks for general diagnostic exams and two weeks for cancer-related (suspected) exams.

The Trust recognized that it would be very important to help their staff develop the tools and capabilities to address the issues they faced. To get everyone involved, Philips consultants developed a new foundation level training course for the entire imaging department. A staff survey was conducted prior to the foundation training which helped baseline staff experience and shape the training content.

Staff were especially positive about the following aspects of their experience:

- Standard of care provided
- Ability to make suggestions
- Non-mandatory training received

Areas to address included:

- Involvement of staff in change
- Communications between senior leaders (clinical and managerial) and staff
- Use of patient experience feedback for improvement



Process flow map containing imaging process flow, related activities and the patient experience

Based on this input, Philips consultants worked closely with quality improvement leaders in the Trust and drew upon Philips Business Transformation materials, patient flow principles, behavioral psychology, as well as NHS materials and approaches to create the training.

“Basically, we developed a curriculum that translated many flow principles, by drawing on behavioral psychology concepts, into ones suited to a healthcare setting,” said Lee. One part looked at creating a continuous patient flow and what resources the staff need to remove blockages to that flow. Another part had each staff member experience the effects of poor patient flow in a simulation, so they could really identify with the consequences. There was also an exercise that gave people insight into their own response to change and that of their colleagues. This would be a very useful course for any hospital in the NHS or any other care facility, to encourage all staff to gain a patient flow perspective and to promote the necessary behavioral changes.

Lee said, “When you look at it from the patient flow perspective, it is important to consider all roles in the process - from receptionist to reporting radiologist. The boundaries between the roles can encourage silo working and impede process performance. We purposely made the content the same for everyone, so it would provide a new foundation and a common language that would be understood across the entire workforce. At the same time, the content was very personalized to increase people’s engagement.”

“I enjoyed the whole day. Rather than trying to overload you with information, it was delivered in bite size chunks, which made it easier to remember. Now we are going to have everybody on the same page,” said Anne Falconer, Administration Manager. “It has been a difficult time, as we have been short staffed. If we could have the same mindset and new ways of working, doing things in the same way, we would work more effectively and more efficiently together.”

“All radiology staff attended the foundation course and that was very worthwhile for team building and understanding the challenges,” said Liz Williams, MR Superintendent and Focused Improvement Project Lead. “We could talk openly and hear one another’s views.”

### MR focused improvement project: Learn-do cycles

Based on the results from the data analyses, it was decided to carry out a focused improvement project with the MR group. The MR facilities comprise an in-house Philips MR Ingenia 1.5T, used seven days a week, and a mobile scanner, used three days a week. The MR group is struggling to meet a higher demand for its services with minimal staff and outdated IT systems and facilities. Much of the demand and capacity planning has a strong manual component.

To help the MR group address the high variability in MR turnaround times, Philips consultants developed and delivered a series of six learn-do training cycles as shown in the diagram.



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Liz Williams, MR Superintendent and Focused Improvement Project Lead

“The learn-do training modules were hugely valuable, and all of the themes had benefits. The part that stood out for me was the module on why doing a process map is important,” said Williams. “It helped us identify issues and opportunities, and gave us a structured way of addressing issues. Before, the majority of the team did not fully understand the purpose behind process mapping, but now everyone better understands the reasoning behind it.”

Williams adds, “Having an external company run training like this is a good way to approach issues. I’ve been collecting capacity demand data for a long time, but people aren’t necessarily interested in it. It is good to get an external company that has in-depth clinical knowledge to reinforce the importance of collecting it, so staff understand there’s a universal need across modalities for planning purposes.”

#### **High hopes for the future**

One suggestion made by the MR focused improvement project was to gain more feedback from patients on imaging services and the team is looking to implement that in the future.

The new approach to quality improvement is expected to help the Trust improve productivity by 5%-10% per year. Some process improvements have been made to streamline MR exams, such as having a patient go directly to the MR room and radiographers working more closely with radiologists to standardize sequences. Looking ahead, the Trust plans to appoint a lead to continue quality improvement for modalities across the imaging department. They are also looking at rolling out the focused improvement project approach to other imaging modalities.

“Since the training there have been subtle changes in the conversations,” said Griffiths. “Staff are starting to see things from a different perspective and think in a new way. We are changing people’s mindset and I have high hopes for what we can achieve together.”



#### **Strategic partnership for Managed Services**

The service improvement project is part of an 11-year strategic partnership for Managed Services in radiology with Wye Valley NHS Trust. This project included data insights and training delivered by Philips Healthcare Transformation Services. Additionally, Philips provides a committed replacement plan for imaging equipment. This to ensure the Trust continues to invest in the latest technology, while also addressing bottlenecks to deliver future-proof healthcare services to their community.

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