



Royal Berkshire Hospital

● BACKGROUND

Royal Berkshire Hospital's orthopaedic department was looking for a way to significantly improve its orthopaedic registry compliance and streamline its data entry process. At the time, the Trust had to enter the same data several times into the hospital's electronic patient record system, its theatre management system, and into the orthopaedic registries. This was an extremely repetitive and time-consuming process.

In 2016, Royal Berkshire Hospital (RBH) realised this was unsustainable as well as a waste of time and effort and so approached Amplitude Clinical Outcomes for help.

● THE APPROACH

Amplitude worked in partnership with the orthopaedic team at RBH to scope their specific requirements and launched their new platform in 2016. The goal was to create a single instance platform that ensured data was entered once and was then shared, providing the appropriate consent was obtained, with all relevant stakeholders. The pro enterprise™ platform included T&O pro series pathways along with registry specific pathways.

The Amplitude platform enabled Orthopaedic Surgeons to collect, analyse and report on appropriate PROMs data quickly and from a variety of locations. This electronic data collection platform came with an automatic notification system that alerted patients when new hospital questionnaires needed to be completed. This setup supported the Trust with the capture of essential patient data.

Following the success of the initial launch, in 2018, RBH extended their platform to include the National PROMs service. The electronic capture of National PROMs allowed the data to be retained locally whilst uploading Q1 and Q2 returns directly to NHS Digital.

After the successful implementation of National PROMs, in 2021, RBH further extended the platform to include the NJR service. The electronic capture of NJR data, again retained locally and submitted digitally to NEC, allowed clinicians to view the full picture in terms of patient treatment and long-term outcomes.

The same year, the service extensions were further improved with the introduction of a complex interface with Cerner, the Trust's EPR. The improved interface enabled quicker identification of patient demographics. This enabled clinicians to easily access patient data and use it to guide and support patient diagnosis and treatment plans.

● THE RESULT

The Amplitude pro enterprise™ platform has been implemented at Royal Berkshire Hospital for 5 years and is used by orthopaedic consultants and their support teams to demonstrate hospital performance. The platform has allowed the collection of data that is representative, accurate and meaningful; therefore, giving an insight into the Trust's clinical outcomes. The data is retained locally via the web-based platform and the data exchange functionality is used to submit the data at a national level to various orthopaedic registries.

The system and processes used have provided significant administrative efficiencies, as well as reduced errors from multiple entries of the same data.

Additionally, until recently, it has been near impossible to link National PROMs data with NJR data given they are two separate databases run and managed by two separate organisations. The Amplitude platform at RBH links these two datasets into one system whilst using the electronic data upload functionality to submit the data to NHS Digital and the NJR respectively. For the first time, the Trust can view the data alongside each other and observe the long-term outcomes of the interventions carried out and measure the benefits of the surgery, over time. It allows the hospital to identify and evidence best practice when faced with multiple treatment options.

As of July 2022, over 100 consultants and delegates use the Amplitude platform at RBH, and they manage the records for 16,543 active patients. This means RBH now has insights into the success rates of patient surgeries and treatment plans, and this data can be used to help the Trust with research, auditing, and clinical decision making.

Surgeons have also benefited from the development of reports available in the report writer section of the platform. These reports include patient compliance ratings, along with a revalidation report that can be used to assist with annual appraisals and revalidation evidence.

● FUTURE DEVELOPMENTS

The team at RBH is keen to establish themselves as a leading example of digital first processes and as a result will continue to develop their use of the Amplitude platform and processes to ensure the best results for the clinicians and patient outcomes are achieved.

These plans include further developments to the interface to allow key data to be returned to the patient record in Cerner. Other new developments are also in the pipeline, these include:

- Achieving 100% authentication from all consultants to activate data exchange so that all registry data is sent electronically to over 8 different registries.
- **Implementing a Compliance Management tab**
This is a new tab that will combine data from all pathways and identifies patients with outstanding tasks and questionnaires. Thus, allowing clinicians to specifically target patients who fall below their compliance targets.
- **Implementing alert triggers**
This alert system will allow consultants to activate alert notifications that will signal when a patient returns an “out of expected” response. Examples of “out of expected” responses include: a patient reporting a complication, declining NJR or National PROMS consent, providing an extreme variation of progress on a score, or reporting an adverse response to the anxiety/depression question on an EQ-5D. This will improve the quality of patient questionnaire responses and ensure that all data entered into the system is as accurate as possible. The consultants can choose to be notified of these alerts via SMS or email.
- **Implementing Document generator**
This will allow operation notes and discharge summaries to be generated as a PDF on the consultant's web browser, they can then save the PDF onto their desktop or print a physical copy. These PDFs will be built to include relevant data and can include standardized branding, allowing the Trust to include its logo on all the reports generated. These documents will then be sent back to Cerner to maintain the master clinical record.