



Royal Free London
NHS Foundation Trust

Successful large scale complex data migration at the Royal Free London NHS Foundation Trust

How Stalis supported the Royal Free London NHS Foundation Trust to undertake a successful, yet complex, data migration exercise during its Cerner Millennium EPR deployment.

The Royal Free London NHS Foundation Trust (RFL) delivers world class expertise and local care via its three main London hospitals - Barnet Hospital, Chase Farm Hospital, and the Royal Free Hospital. It's 10,000 staff deliver a wide range of routine and specialist health services to more than 1.6 million patients each year.

In 2016, the trust embarked on a major IT system upgrade to implement a new Cerner Millennium Electronic Patient Record (EPR). Due to the scale of the upgrade, it undertook a phased approach to the deployment, initially implementing the technology at Chase Farm Hospital and Barnet Hospital in 2018 during phase one and then later implementing at the Royal Free Hospital in 2021. The trust contracted Stalis to undertake the data migration throughout all phases of the project.

| Overcoming complex challenges

Due to the phased approach of the Cerner Millennium EPR implementation, RFL operated with two different Cerner systems. The gap between the deployments was initially intended to be just a few months, however, due to various challenges including the COVID-19 pandemic, the deployment at the Royal Free Hospital was delayed.

Matthew Lawrence, group head of patient systems at RFL, explained: "As Barnet Hospital shares so many services with Chase Farm Hospital, we decided we had to deploy the EPR to both at the same time, leaving the Royal Free Hospital for phase two of the project."

During the first winter of the COVID-19 pandemic, Barnet Hospital and Chase Farm Hospital were able to reap the benefits of the new EPR and so it was decided that the trust needed to implement the new system at the Royal Free Hospital as soon as possible.

Lawrence explained: "The emergency department at Barnet Hospital and the Urgent Treatment Centre at Chase Farm Hospital in particular were able to respond and deal with patient care far better than the Royal Free Hospital due to the technical capabilities of the new EPR. For example, the medical staff could get real time statistics across all patient

areas showing patients' oxygen levels and the site team could see at a glance which patients were improving or if any were deteriorating and needed higher levels of care. The Royal Free Hospital didn't have this and it made a real difference to how staff were able to respond.

"The basic discharge process for an inpatient at Barnet or Chase Farm took four to five minutes due to the automated processes available in the new EPR, whereas at the Royal Free Hospital it would be 30-40 minutes because everything was done manually."

| Large scale data migration

Due to the scale of the deployment of Cerner Millennium at the Royal Free Hospital, the trust knew that it would again need support with its data migration. As a result of the positive experience with Stalis during phase one, the decision was taken to again contract Stalis.

Glenn Winteringham, group chief digital officer for the RFL, commented: "Stalis has a good track record of data migration and they have extensive experience working with Cerner domains meaning they already have a whole set of tools available to them. The work they provided during phase one was so successful that we absolutely wanted to stick with Stalis as our partner."

| Ensuring data quality and clinical safety

The trust began the phase two project at the Royal Free Hospital in July 2020, undertaking an extensive data cleansing exercise and embarking on a number of testing cycles prior to go-live.

Winteringham explained: "Any missing, partial or duplicate data has the potential to cause massive disruption to care services and puts lives directly at risk. We knew we had to get the data migration right if the EPR deployment was to be a success."

The project involved remigrating data across various datasets that were incomplete as a result of the dual Cerner systems in operation and also the migration of all future booked activities. A particular challenge centred around the historical Referral To Treatment (RTT) information which, due to differences in the two Cerner Millennium systems, couldn't be migrated like-for-like.

Emma Jackson, Professional Services Director at Stalis, said: "It was difficult initially for some of the staff to understand that some data couldn't be mapped directly to the new system. There was poor quality data on the old Cerner system, as it wasn't really compliant, and so decisions had to be made about what data to migrate.

We had to support RFL in making these difficult decisions and help them to understand the implications that this would have on go-live and future clinical practice."

Stalis worked with the trust's project team to address the various challenges that the data migration posed, which included data quality issues from the legacy system and complexities of the interfaces, all undertaken within tight timelines. Stalis staff ensured that the project team undertaking the data migration tasks understood the requirements of the project and were supported throughout.

Invaluable support

Kelly Henson, PAS inpatient workstream lead at the Royal Free Hospital, said: "It was clear from the start that Stalis had significant experience and a wealth of knowledge in data migration. They used this to guide us through the process every step of the way."

For Henson, the support that was provided was invaluable. She said: "Emma and Kate from Stalis became part of our team and supported us on a weekly basis to ensure we obtained the best result possible. They were able to work with all levels of staff and showed excellent leadership skills throughout the programme. They were able to make us understand the technical elements of migration in a language we all understood."

| Guidance and support

Dawn Smith, PAS outpatients workstream lead at the Royal Free Hospital, echoed Henson's views on the quality of support Stalis provided. "My knowledge of data migration and how it happens was minimal to say the least at the beginning of this project," she explained. "Both Emma and Kate helped me through the process, explaining what was happening and what I needed to do/decide using words and phrases that I could understand. They shared their experience and skills with me and my colleagues, which gave us the confidence to make the decisions that had to be made.

"Both of them became an integral part of our team, working extremely hard with our configuration analyst up until the last possible minute to ensure that we had prepared for the best possible outcome."

This support extended to all levels of the project team, with Lawrence particularly grateful for the guidance and advice received. "I would receive a regular call from Stalis's sales director to check in on how the project was progressing. It was just reassuring to know that the Stalis team were there ready to help should we need them."

Ensuring success

The Cerner Millennium EPR went live at the Royal Free Hospital in October 2021, just 15 months after the project



was initiated. This included the migration of 1.4 million records, including more than six years' worth of historical RTT information. While there remains some manual data corrections, the trust is impressed with how Stalis enabled them to execute such an extensive migration project.

Jackson said: "Data migration is often a compromise to migrate the correct balance of data to support clinical and operational workflow but also enable a programme to go live in a timely, cost-effective manner. We worked with the RFL group over the 15-month 'delivery 2' programme to successfully migrate over 820k future activity records across waiting lists and booked appointments. The project was very focused on delivery, patient care and was, at times, very challenging due to legacy data quality issues that come with systems that have been in place for such a long period of time. We are delighted to have been able to assist the trust in achieving their goal."

Lawrence said: "I've undertaken a large number of data migrations in my career and this was definitely one of the smoothest. I would never expect to go through a deployment of this size and not have issues, however, the issues are manageable - they are not causing patient harm and they are ones we are addressing on a case-by-case basis. If we have to do any data migration work in the future then we will certainly be looking to Stalis as a primary contender based purely on their unwavering support and the expertise they have consistently demonstrated - I really can't fault them."

Kate Bryan, Managing Director at Stalis commented: "We were excited to work with the Royal Free London on phase two of their EPR implementation, following a successful phase one. A Cerner to Cerner migration sounds like it would be a simple thing, however the fact that RFL had been using two instances of Cerner in parallel for a number of years, with interfaces between them, presented additional challenges. Our data quality and migration tools and approach have been formulated over the last twenty years and were vital to deliver a migration of this scale and complexity efficiently."



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