

CASE STUDY Merging Ophthalmology EMR Data at University Hospitals Birmingham

In conversation with Andrew Mills, IT Digital Network Manager, Ophthalmology

In April 2018, University Hospitals Birmingham NHS Foundation Trust (UHB) merged with Heart of England Foundation Trust, creating one of the UK's largest healthcare providers. A major objective of this merger was consolidating ophthalmology data, which was split across two separate Medisoft Electronic Medical Record (EMR) systems.

The challenge? Both trusts used Medisoft Ophthalmology in different configurations, with separate datasets and workflows. The goal was clear: create a unified EMR platform using mediSIGHT, enabling seamless data access, greater efficiency, and improved patient care.

Leading the project was Andrew Mills, IT Digital Network Manager for Ophthalmology, who guided the trust through a technically complex and clinically critical data migration.

Objectives

Q: Andrew, what did the team set out to achieve with this project?

Andrew Mills:

"Our vision was to merge two disparate ophthalmology EMR systems into one unified mediSIGHT platform. That meant eliminating inefficiencies from multiple logins and workflows, improving resource use across sites, and enabling more straightforward data management. Ultimately, it was about creating a foundation for better patient care through centralised information."

Challenges

Q: What hurdles did you face along the way?

Andrew Mills:

"System compatibility was the first challenge - the Medisoft versions, modules, and configurations across the trusts didn't align between the two systems. Data migration was also a huge undertaking. We were talking about integrating 300,000 patient merges, 3.5 million encounters, and 1.7 million distinct patient visits. This required meticulous planning and execution.

Beyond the technical side, communication and training were major factors. We had 120 staff members who needed to adapt to the new system. Plus, UHB has tight database security, so we couldn't provide suppliers with live access - we had to engineer solutions around those restrictions."

The Solution

Q: How did you approach such a complex integration?

Andrew Mills:

"Upgrading the trusts to the same mediSIGHT version was rolled out in phases - beginning at the Queen Elizabeth site. We conducted testing and optimization for three months, before going ahead and transitioning the Heart of England sites too (Heartlands, Good Hope, and Solihull). For the actual data merge, we used a dedicated Medisoft "Merge Tool" to integrate patient records while ensuring minimal duplication and maintaining data integrity. Extensive testing was vital - automated checks to confirm data consistency, and user acceptance testing (UAT) to make sure the system worked in real-world conditions."

Results & Benefits

Q: What benefits have you seen since completing the merge?

Andrew Mills:

"The most immediate impact staff reported was increased efficiency in clinical workflow. Our staff now access a single system, eliminating the need for switching between multiple platforms. From a resource perspective, equipment that was once tied to a single site can now be used across the trust. In some areas, this has effectively doubled our capacity. Patients can be directed to clinics with available resources, improving care delivery. IT administration is also simpler: managing one system instead of two has freed up time and reduced complexity.

Most importantly, patient care has improved. Clinicians now have centralised access to records, which means fewer delays and better coordination of care. Friction caused by data silos is eliminated, enabling faster and more accurate decision-making"



Lessons Learned

Q: What advice would you give to other trusts planning something similar?

Andrew Mills:

"Communication is key. We found that email updates alone weren't enough - posters and physical notices in clinics worked far better. It's also important to allow sufficient lead time. We built in a six-week transition period after Change Control Board approval, which was crucial for a smooth rollout."

Finally, collaboration with the vendor made a real difference. Having access to Medisoft's tools and upgrades at the right time gave us the best chance of success."

Future Directions

Looking ahead, UHB plans to:

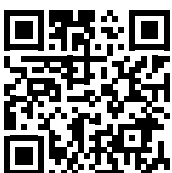
- Increase standardisation of clinical processes across all ophthalmology sites.
- Further optimise clinic workflows using mediSIGHT's advanced features.
- Integrate additional diagnostic devices and modalities into the system.

The EMR merge at UHB demonstrates the transformative power of unifying ophthalmology data on a single specialist platform. Despite technical and organisational challenges, the project has delivered operational efficiency, enhanced resource utilisation, and improved patient care.

As Andrew reflects:

"We achieved immediate benefits as the staff were not looking at two systems anymore - the users all round find it much, much easier. It's also given us better use of resources, and that makes your decisions and strategic choices easier."

This case stands as a model for other NHS trusts considering similar integration projects, demonstrating that with careful planning, strong communication, and phased implementation, even large-scale, complex data merges can deliver substantial benefits.



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