



The New £420M University College Hospital,
Euston Road, London.

University College London Hospitals NHS Foundation Trust A 21st Century Network Solution for the NHS

The University College London Hospitals NHS Foundation Trust (UCLH) is one of the top performing NHS Trusts. UCLH comprises 8 hospitals in the West End of London providing both general and specialist healthcare facilities. The organisation has 6,000 staff, over 1,000 beds and approximately 500 consultants.

“This is the largest single IT project ever attempted in a UK hospital. LogicaCMG working with us and IDX have produced a first in the UK which is the development of the platform for electronic patient records. They have also brought experience to develop the business environment that we now operate within, sustaining the excellent 100% uptime that we have achieved over the last 12 months or so. This is something particularly important in the NHS environment where we operate a 24 hour service.”

Robert Naylor,
Chief Executive, University College
London Hospitals NHS foundation Trust

Introduction

The modern NHS is being built on a foundation of integrated IT and modified working practices. The technology required will enable NHS staff, interested third parties and patients themselves to readily and securely obtain the clinical or health related information they require instantly, wherever it is needed. However, building and introducing the required systems and technology base is not an insignificant undertaking either for the Trusts or their individual operating departments.

In any industry there are serious challenges in creating a new operating model - be it evolving the strategy, selecting and implementing the most appropriate systems and, perhaps most crucially, ensuring that staff are fully involved, support the development and are trained to confidently exploit its potential. Within the healthcare industry this has proven to be paramount.

Commonly in the NHS, the vast majority of hospitals and Trusts rely on technology comprised of discrete systems designed for a single purpose, often without the capability to communicate with other systems. Many are aging, use incompatible operating systems and run on different hardware platforms.

The Business Requirement

In common with most of the NHS, UCLH relied heavily on paper-based recording and storage systems supporting paper-based processes for communication between clinicians, patients and carers.

“ These paper-based systems are inefficient, prone to inaccuracies and slow to access. As a result patient notes and test results may not be readily available at the time of need to the relevant physician or carer. ”

As part of its expansion and modernisation programme, UCLH determined to embark on a number of new technology initiatives. One of these was to address the problems inherent with paper based records. UCLH therefore sought a Clinical Data Repository (CDR) supporting an Electronic Patient Records (EPR) system to allow for a near paperless new hospital and thereby keeping the Trust at the forefront of technology and clinical care.

The objectives of the CDR/EPR activity included:

- fast, secure access and distribution of medical records
- images such as X-ray and MRI scans accessible throughout the hospital electronically, making traditional X-ray films a thing of the past
- access on demand to all patient information throughout the hospital
- information access times to be greatly reduced
- leverage the investment in existing systems

LogicaCMG Approach

UCLH recognised that it needed a partner it could trust to both implement the services it required as well as to ensure that they were supported and maintained over the long term. Such a partner needed to be not only technically capable but needed to understand the unique requirements of the NHS environment.

A contract was awarded to LogicaCMG in October 2003 to deploy the new CDR which, along with the EPR, meets NPfIT objectives and includes electronic appointment booking and centralised critical care records.

Additionally, LogicaCMG provides a 10 year outsourced managed service that delivers 100% availability of the Trust's systems on a 24 X 7 basis as well as contracting to provide a converged network within the new £420M state-of-the-art UCLH hospital.

Creating the Clinical Data Repository

The new Clinical Data Repository sits at the heart of the UCLH's patient care processes. Successfully introducing such a new system is a complex task, not only from a technical perspective but also from a clinical one. Both aspects must be fully incorporated into the design and development process.

LogicaCMG created a comprehensive plan of work to ensure that all aspects of the implementation were fully recognised and managed. This included ensuring that:

- **it was a clinician led programme**, one where clinicians and other users were actively consulted to ensure that the system satisfied their needs and more closely fitted the prevailing working methods;
- **communications programmes were established** to keep users aware of progress, to respond to questions and to reduce anxieties;
- **training and support was available** for all users prior to and during roll-out and beyond;
- **existing records were properly "cleansed"** before being aggregated and migrated to the new system prior to cutover. (All of which was undertaken while existing systems were still being actively used and maintained);
- **the roll-out was undertaken in an incremental and controlled** manner to minimise disruption and ensure "quick win" benefits were realised early and on a continuous basis.

The new system was designed to work with the existing discrete systems not replace them. Clinicians could then determine which system was the most appropriate and convenient source of the data at any time, confident in the knowledge that the data entered in one was available to the others without re-keying or delay.

Outcome of the move to Electronic Patient Records

The UCLH EPR system has proved to be a great success and is in operation throughout UCLH. The proof of this success can be seen in the way in which clinicians and their teams have taken to using the system with little fuss and with immediate benefit.

Information is now also readily available on mobile devices at the point of use thus reducing the time needed to retrieve and enter patient data. There has been a reduction in the amount of paper produced. All of which points to an improved and more efficient service for the patient and the taxpayer.

To discuss in more detail, please contact:
Margaret Moore
Business Development Manager

LogicaCMG
81 George Street
Edinburgh EH2 3ES

T: +44 131 527 8590
Email: health.uk@logiacmg.com

Other Ongoing Activities

Since the development of the CDR/EPR, LogicaCMG has undertaken a number of highly successful projects to deliver additional services including:

- **Clinician led development**
LogicaCMG has adopted a project management approach to all application development and implementation projects. The sponsor is usually a senior UCLH clinician and clinicians are actively encouraged to participate in the design, implementation and testing of all new applications.
- **LogicaCMG's Network Solution**
LogicaCMG produced a detailed design for the implementation of a secure IP-based network architecture supporting the new EPR system, legacy medical applications, a clinical teaching video system, a Picture Archiving & Communications System (PACS) and a Voice over IP (VoIP) telephony system.
- **Wireless Network**
Implementing a 250 Access Point wireless network - one of the largest wireless networks within the NHS. This enables clinicians and carers to access up-to-date patient information at the patient's bedside or on the move.
- **Network Support**
Providing outsourced network support using staff with UCLH IT knowledge and experience.

Benefits of the Programme

The CDR/EPR has been running successfully since 2005 and the CDR now contains over 2.2 million health records.

The benefits that UCLH sought are now fully satisfied and the improvements are helping to ensure that UCLH remains a leading NHS hospital, ready to face the demands of the future. These include:

- **improved attendance** through the use of automated reminder notices and text messaging
- **reliance on clinical notes** as scanning and electronic document management systems have enabled clinicians and carers to access all previous correspondence and notes in clinic and across any of the hospital's 4000 PCs
- in partnership with UCLH pharmacy LogicaCMG has introduced **electronic discharge prescribing** that has speeded and improved the prescribing and dispensing process
- **Mobile working** desktop integration which enables users to move between systems without logging in to each system or having to re-select patients. Not only is this more efficient but reduces the need for multiple passwords and reduces password sharing

The systems and methods introduced by UCLH in partnership with LogicaCMG has helped to make it a more flexible and agile organisation, more capable of making the transition to the new working practices being introduced across the NHS.

LogicaCMG is a major international force in IT services. It employs around 40,000 people across 41 countries. LogicaCMG's focus is on enabling its customers to build and maintain leadership positions using LogicaCMG's deep industry knowledge and its track record for successful delivery. The company provides business consulting, systems integration and IT and business process outsourcing across diverse markets including telecoms, financial services, energy and utilities, industry, distribution and transport and the public sector. Headquartered in Europe, LogicaCMG is listed on both the London Stock Exchange and Euronext (Amsterdam) (LSE:LOG; Euronext:LOG).

More information is available from www.logiacmg.com/uk