Hyland™

UNIVERSITY COLLEGE LONDON HOSPITAL

This state-of-the-art academic health centre implemented an integrated imaging content management platform with its EPR to give its clinicians immediate access to unstructured clinical content at the point of care.

University College London Hospital (UCLH) is an NHS Foundation Trust based in London, United Kingdom. It is one of the largest academic health centres in the UK, comprising several distinct hospitals. The hospital works in close collaboration with its academic partner, University College London, part of the University of London.

UCLH had made good progress in planning the implementation of an electronic patient record (EPR) system and was considering incorporating imaging technology into the project. Initially there was reticence about expanding the project scope. Key users could not understand why, if the hospital was acquiring a state-of-the-art EPR. it was also necessary to expend resources on acquisition of an enterprise document management system (EDMS). However, it became clear that the ability to capture document images was a necessary addition to the overall EPR system. Although very powerful, the EPR would not provide a solution for several important aspects of healthcare information management. For example, UCLH identified three broad categories of information not readily managed by the EPR — legacy unstructured data, pre-hospital information (such as referral

letters and notes from other providers collated before the patient's admission to UCLH), and various document types and images generated in the hospital (e.g., 12-lead ECGs, consent forms, property forms, drawings and photographs — both professional medical photography and photos taken by the patient).

An EDMS (Perceptive Content by Lexmark) was already in use in various departments at UCLH, as was a PACS system that was managed by medical physics. The team realized that the best solution would be to bring all these projects together, to create a truly enterprise-wide solution and complete source of patient information within the EPR.

In 2017, Lexmark Enterprise Software was acquired by Hyland. The company not only absorbed Perceptive Content, but also provided its own flagship EDMS solution — OnBase. Upon review of both of these offerings, as well as EDMS solutions from other vendors, UCLH decided that OnBase provided the functionality and proven integration with its Epic EPR that was necessary for this project. The contract was signed in 2018 and implementation began shortly thereafter.

INDUSTRY
Healthcare

SIZE
Cares for more than one million patients annually

PRODUCTS IN USE
OnBase

LOCATIONS
University College Hospital, University College Hospital at Westmoreland Street, the UCH Macmillan Cancer Centre, the Royal National ENT and Eastman Dental Hospitals, the Hospital for Tropical Diseases, the National Hospital for Neurology and Neurosurgery, the Royal London Hospital for Integrated Medicine and the Royal National Throat, Nose and Ear Hospital, London UK

> "If your mission is a full medical record, with everything viewable in one place, you need to integrate enterprise PACS and document management into your EPR solution."

Dr Steve Cone
Chief Clinical Information Officer
UCLH

The EPR team held the view that the joint implementation of the EDMS and EPR provided the perfect opportunity to change and optimize workflows. The project was ambitious. The team tried to pack as much into that moment in the hospital's development as possible. A massive effort went into clinician engagement for the overall EPR programme, with over 500 people heavily involved, plus the training of an "army of superusers". This also meant deciding which specific kind of information would be handled by the EPR system or by OnBase. Key questions formulated to guide these decisions included:

- Where does the data come from?
- Is structured data important?
- Must the data drive workflows?
- Is it research data?
- Is complex form design needed?
- How do users interact with the data?

Consideration of these principles enabled important workflow design decisions to be made. "However, no matter how hard you try, you will never think of everything before go-live," said Dr Stephen Cone, Chief Clinical Information Officer and consultant anaesthetist at UCLH. "In addition to the other benefits that OnBase brings, it also allows us to quickly add document-based workflows to the system as they arise," Dr Cone added.

One of the most important technical capabilities of the Hyland solution when implemented alongside the EPR is that the documents managed within OnBase can be accessed and viewed, in context of the patient record, from within this core clinical system.

So effective is this integration that the EPR team believes that the vast majority of hospital staff do not realise that they are using OnBase. Rather, they believe that scanned images of documents are simply part of the EPR. The user experience had to be seamless and simplicity was key.

This was especially important in the hospital's outpatient departments. "We have always relied on good clinic letters in outpatient departments to communicate back to the primary care doctors and to facilitate communication among doctors in the clinic." said Dr Cone. "We really emphasise this to junior staff, and so we teach them how to create effective letters. We brought most of the letters over into the new system, so we did not need to back-scan paper records. The clinic letters contain what we need and we have now ceased to pull paper records for clinics. As a result, we clinicians no longer have to wait for information, or to make decisions without the benefit of the full clinical history."

Patients and staff alike have felt the system's benefits. Patients attending clinic visits have noticed that doctors now never seem to be missing important information. "Gastroenterology loves the integrated EPR. So does dermatology," said Dr Cone. "We use images as a key part of our wound management service, and OnBase allows us to quickly capture these images and make them accessible to clinicians via the EPR. Patients are also able to submit, using their phone camera at home, images of the state of a wound so we can monitor progress and healing without the patient needing to travel to the hospital."

Another key benefit OnBase offers is its role in business continuity planning. Every department has paper-based systems in place that can quickly enable normal activities to continue in the event of an EPR system failure. Recovering from such incidents can be time consuming if large-scale data entry is required. OnBase makes that unnecessary.

Learn more at **Hyland.com/en-GB/healthcare**

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