Twelve Tennis Courts Worth of Paperwork Reduced to 14 Disks

INDUSTRY:
Healthcare

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Alisha Lucas

District Director of Information Management Services

Logan-Beaudesert Health Service District

Queensland Health is a dynamic organisation committed to providing a range of services aimed at achieving good health and well-being for all Queenslanders. It caters to some 3.7 million people across a state more than double the size of Texas.

Through a network of 38 Health Service Districts and the Mater Hospitals, Queensland Health delivers a variety of integrated services including hospital inpatient, outpatient and emergency services, community and mental health services, aged care services as well as both public health and health promotion programs.

The Challenge

Logan-Beaudesert Health District, within Queensland Health, had to manage increasing volumes of patient records and needed a more efficient way to manage them. Across Queensland there were millions of square metres of hospital space devoted solely to the storage of paper records for millions of patients. Since implementing ERIC (the district's Electronic Clinical Record Management System), Logan-Beaudesert has reduced their hospital storage space to 14 disks or just 4 reams of paper.

A digital solution was identified in 1999 as being required to handle the vast quantities of records – past, present and future, involving multiple repositories and cross-disciplines. Demands for access to the records were increasing rapidly, and access needed to be made without compromising patient privacy or security. In addition, the Logan-Beaudesert Health Service District comprises two hospitals (Logan Hospital and Beaudesert Hospital) as well as eight health community centres. Records had to be deployed at various points-of care, including hospital bedside, clinics, emergency wards, community centres and even patients' homes.

Today the electronic management system allows for each of the district's half a million patients to have a single medical record regardless of which facility they visit, and allows district health professionals to access that information anywhere and at any time.

The Solution

The ERIC system implemented is supported by a group of local health information managers and by FileNet's ValueNet business partner, the BPA Group. ERIC is designed to allow clinicians to view a patient record from a range of perspectives, depending on their immediate needs.

A complete patient record comprises information from a variety of sources and needs to be collected, categorised and displayed as required. Information may include:

- Direct data entry for specialist outpatients
- Paper-based records like nurses' notes or external reports
- Operation and Pathology results
- Admission and registration details
- Correspondence

A broad spectrum of FileNet technology enables this comprehensive functionality. They comprise FileNet IDM Desktop, Image Services, Visual WorkFlo, Content Services, Capture, Web Services, Disaster Recovery software. These products integrate with Sun MicroSystems' eGate middleware, eIndex for the patient master index, and Results Reporter, which provides a data warehouse of patient results from external systems and a theatre system, a medication system and an emergency information system. The Oracle database is used as a repository for ERIC information.

As information is delivered to the system, it allocates the correct index values and ensures the information is linked to the correct patient and the correct event. As each information fragment is added, it is referenced in the data warehouse. Backfile conversion of existing patient records is based on usage patterns and scan on demand.

Users may search for and navigate to patient records via a browser, providing clinicians with the ability to create multiple views of all information relating to a patient, depending on their current information requirement. The presentation of the patient's record to the clinician is seamless so that there is no need for a clinician to know if it is sourced originally from paper as a data feed from an application. The system also tracks information about each time the patient's record is viewed, allowing patients to know exactly who has had access to their details. This is vital for compliance with today's strict privacy legislation and streamlines processes in case patients request this information.

A disaster recovery system has also been established so that immediate access to records is always available. Remote batch entry servers are used to enable remote scanning at secondary hospitals.

Future prospects include: developing the ERIC health record to provide a 'platform' where GPs and hospitals can share information, the availability of antenatal records online, the provision of electronic care plans and the expansion of the system to manage hospital administrative records. Future plans are to enable the sharing of information between Queensland Health districts and to general practitioners.

The Bottom Line

The solution is yielding excellent results to date. Alisha Lucas, District Director of Information Management Services for the Logan-Beaudesert Health Service District says, "In the ERIC system, a patient's record can be delivered to an emergency department, operating theatre or community health centre in seconds, rather than taking hours or even days. Because the system ensures health staff is provided with real-time, up-to-date information for thousands of patients, they are able to make better decisions faster." She says that only authorised users have access to patient records, and if a patient is referred to a community service, the service providers have access only to the relevant section of the patient's records.

"Across Queensland there are millions of square metres of hospital space devoted solely to the storage of the paper records of millions of patients. At Logan Hospital, which currently stores half a million patient records, those records occupy an area equal to twelve tennis courts. By comparison, medical records for the whole district of Logan-Beaudesert will fit on 14 CDs. If you then consider the number of records held at the many hospitals across Queensland, including major facilities such as our tertiary hospitals, you can imagine the amount of hospital space that can be freed up for other uses."

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Other business benefits include improved access to patient health care information, simultaneous access by multiple personnel, improved integration of existing and future clinical and administrative information systems and databases. Errors resulting from filing issues have been reduced significantly, and there are improvements in result reporting and record security.

The FileNet solution has given Logan-Beaudesert the unique competitive advantage of owning what is potentially Australasia's most advanced electronic medical record system.

According to Phil McKenzie, CEO of The BPA Group, "The FileNet solution has contributed to true 'continuum of care' record-keeping for Queensland Health."

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