Children’s Health Queensland — Health Information Services: moving into a new hospital

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Background
The Queensland Children’s Hospital Project (QCHP) was announced as an election commitment in 2006 (Queensland Audit Office 2014). It was decided there was to be one paediatric facility for Queensland to enable the state’s sickest children to receive exceptional, specialist treatment within one hospital.

The Mater Children’s Hospital (MCH) and the Royal Children’s Hospital (RCH) were to merge to create the Queensland Children’s Hospital (QCH). The hospital was renamed in its final stages of building, the Lady Cilento Children’s Hospital (LCCH). The statewide whole of service was also renamed to become the Children’s Health Queensland Hospital and Health Service (CHQ HHS).

The Royal Children’s Hospital
The RCH was a 168 bed paediatric hospital with an average of 20,600 admissions per year. Over 8,000 surgeries were performed, there were approximately 25,500 emergency presentations and 106,000 outpatient appointments attended annually (Queensland Government 2014). To support this activity the RCH Health Information Management Services (HIMS) was created, comprising 32 staff across six teams with over 530,000 medical records onsite.

RCH introduced the Integrated Electronic Medical Record (ieMR) in March 2014. It was decided that this Queensland Health (QH) statewide solution was the most practical solution for use within the LCCH as it is a major tertiary referral centre, receiving and treating patients from all over the state. The ieMR allows the treating clinicians access to detailed medical record information prior to receiving the patient, and also on return to the transferring facility, if these facilities are also using the ieMR.

The planning
Internal planning started between the MCH and the RCH in 2006-2007.

The Model of Service Delivery (MOSD) is a project planning document required for all services planned for the LCCH. It was originally written as a joint document between the Mater and RCH Health Information Services (HIS) in 2008. This was an official planning document which laid the foundations to inform the Lady Cilento Children’s Hospital Project (LCCHP) of the intention of the service and high level detail of our business. The planning was to include the provision of either a ‘paper-lite’ medical record function or a full EMR. This was a living document that was continually updated by the HIS of the CHQ HHS throughout the life of the project.

Back scanning old RCH medical records was out of scope, therefore planning for medical record storage space was essential.

Space allocation for the service was challenging in the planning phase. Clinicians were surveyed to inform the requirement for historical notes. The average response was that three years of medical records were required for ongoing clinical care of our patients. This response was expected, and validated the current business practice and the necessity for a minimum of three years of paper medical records to remain on the LCCH campus. This enabled adequate knowledge for medical record space planning. However, there was also the need to plan for staff space in the medical record department and also clinical coding, medico-legal, system administration, forms management and a transcription services.

The planned activity metric for LCCH was 180% of the activity of the RCH. This accounted for a combination of RCH and MCH activity. Staffing numbers were also based on this metric for all areas of HIS except for medical records. Due to the requirement to continue a paper service and a medical record scanning service, medical records staff more than doubled.

The new hospital
The LCCH has 359 beds and is expected to perform over 13,000 surgeries each year. There are approximately 65,000 emergency presentations and 180,000 outpatient appointments expected annually (Queensland Health 2015). The HIS has increased the staffing numbers to 78 to accommodate shift work within medical records. The service now operates 24 hours a day for 5 days a week and covers day and evening shifts on weekends. Additional CCs, release of information officers and a community HIM were among the additional roles required to accommodate the increase in service. LCCH HIS is located on the 6th floor of the hospital with
two additional storage locations, one within the basement and the other in the Children’s Centre for Health Research. The primary storage area holds approximately 47,000 medical records with a floor space of 90.5 m². A total of just over 150,000 medical records remain onsite across the three storage locations. This storage space (326 m²) holds three years of RCH paper medical records.

Medical Records Scan Centre
The Medical Record Scan Centre was granted early building occupancy as it was necessary to begin scanning Mater medical records prior to the patients arriving for treatment. These records would be retained at the Mater and would not become LCCH medical records (although a scanned copy would be available). The patients’ medical records were scanned in accordance with the sequence of clinical contact. The patients with the first booked appointments or theatre booking were scanned first. The scan centre opened in September 2014 and had scanned over 7,000 Mater medical records by the time the hospital opened on 29 November 2014.

Clinicians required access to the Mater medical record to assist with the treatment of patients who may have held a Mater medical record. As the Mater is not a QH facility, an agreement was established between the Mater and CHQ enabling CHQ access to patient information, including medical records, if the patient had a planned service with CHQ. Patient registration data were extracted from the Mater system and the incompatibility between QH and Mater systems meant that this information from the Mater had to be manually entered into CHQ PAS¹ before any information could be scanned from the medical record.

Approximately 12 staff were employed to undertake the task of entering the data. They started two weeks before the scanning team moved into LCCH to begin scanning. It was essential the patient registrations team stayed ahead of the scanning or the scan team would be left waiting to enter the medical record. Once the registration had been completed for the expected patients, LCCH was able to move into a transition model. Transition for LCCH scan centre is a scan on discharge model.

The medical record source of truth is the ieMR. Mater medical records are scanned into the ieMR at a divider level. Some clinical units also required the paper copy of the medical record to be provided for clinical care to the patient. The scan team was split into Mater medical record scanning and LCCH medical record scanning. It was necessary to split the teams due to the different requirements of the type of scan being undertaken.

There were some challenges for this records move. While there was no physical amalgamation of HIS staff or medical records, there was an amalgamation of hospital staff and patients. Clinical staff who had only previously worked at the Mater still had a strong reliance on paper medical records and the unfamiliarity with QH systems fuelled that reliance on paper. Therefore, it was our role to provide them with the tools they needed to safely and confidently treat their patients.

LCCH still provides paper medical records to clinicians for those clinical units that require them for patient care. Running a dual medical record system has many challenges. However, with the introduction of the Mater patients into LCCH a process was required to manage a quadruple record system. It was still necessary to scan the Mater medical record and take responsibility for the provision of the Mater paper medical record. Basic databases were quickly developed to allow for tracking of the Mater medical records and also maintain a history of records scanned partially or in full.

A scanning database for tracking of LCCH scanning through the medical record department has also been implemented. Both databases are used to track the paper through the scan centre so we are able to locate paper-based information if required. It is also these databases that provide statistics.

¹ Patient Administration System

The new Lady Cilento Children’s Hospital in South Brisbane, Queensland
on turnaround time. The turn-around time is worked out from the time the document is received in the scan centre to the time of the final stage of validation and publishing into the ieMR.

Moving the medical records
A company was contracted by the LCCHP to move the medical records. We had staff supervising at both ends, however due to the number of contracted staff involved in the movement of records, it was difficult for CHQ staff to fully supervise.

The medical records were moved from RCH on 26 November 2014, three days before the hospital opened. As the RCH was still a functioning hospital, including the ED until 29 November, it was essential to hold off moving any records until absolutely necessary. The records were a shelf to trolley to shelf transfer, meaning they came off the shelf, onto the trolley and then onto the shelves, in exactly the same order.

The entire primary record move took five full days. Some minor miscalculations of space had to be corrected along the way, leading to approximately half a day of additional moving time. After the medical records were moved, it was necessary to undertake a full misfile search of each of the medical record storage areas. A number of errors in the order of the medical records were quickly identified. The misfile search indicated that there were approximately 3,435 medical records in the wrong place. This was corrected within a few days.

Medical records on ‘Move Day’
All medical records for patients currently being treated at RCH were transferred across with the patient, and business proceeded as usual, uninterrupted. For the patients requiring transfer from the Mater, a further information agreement was requested. It was necessary for LCCH staff to write on documentation which was owned by the Mater. It was identified early in the Move Day planning that LCCH clinicians would not have the ability to rewrite medication and fluid orders as soon as each child presented from the Mater to LCCH. It was too great of a clinical risk to the patient to attempt to do this. Therefore it was agreed that the LCCH clinicians could sign and document on Mater forms if they had administered fluid or medication which had previously been prescribed while the patient was admitted to the Mater.

The Mater medical records were also required to be returned to the Mater as quickly as possible to allow for coding processes to occur within the appropriate KPIs, as the patient had been separated from the Mater. It was agreed by the Mater that the Mater medical record could remain with the patient for up to 24 hours or until the patient is discharged, whichever is sooner.

Staff from the medical record scan centre were instructed on the evening shift of Move Day and on each shift on the following day to ensure each of the Mater medical records which were no longer required (medication and fluid orders written up into the LCCH medical record, or patient had been discharged), were copied in full and returned to the Mater within the agreed 24-hour time period. If the patient was still admitted, the photocopied Mater medical record remained on the ward with the patient to ensure there was no disruption to clinical information flow during the transition.

Conclusion
Quality and detailed planning are the key to a successful service move, whether it is across the river or just within the same campus - it is all relative. Plan and include all who are interested: clinicians, ICT and all staff within the department. Staff ownership of processes and input into planning for the new facility are paramount. It provides ownership of success but also of failures. It empowers staff to consider solutions and celebrate their successes.

References

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