Case study

Birmingham Children's Hospital

Digital files enhance child welfare

Birmingham Children's Hospital selects Iron Mountain for scanning, hosting, and storage of vital patient records

Client

Birmingham Children's Hospital NHS Foundation Trust (BCH) provides a full range of medical services for children and young people in and around the West Midlands. It's one of the leading paediatric teaching hospitals in the UK and a recognised centre of excellence for children with cancer, cardiac, renal, and liver disease. It offers 220 beds with nine operating theatres, a 22-bed paediatric intensive care unit, and an emergency department dealing with over 45,000 cases annually.

Challenge

The hospital creates comprehensive paper-based records for every patient that attends the emergency department. Each comprises a booklet containing up to 15 pages of data documenting the circumstances of the medical emergency, patient injuries, test results, treatment, and ongoing care plans. These records were being filed in storage boxes and held on-site for six months and then transferred to an Iron Mountain records management facility for long-term safekeeping.

With the emergency department typically seeing up to 200 patients each day, the records were piling up, occupying valuable hospital space that could have been better used for clinical purposes. Furthermore, with up to 400 patient files stored in each box and up to 100 boxes kept in the hospital storage facility at any time, document retrieval was far from straightforward.

Sue Hobday, Head of Clinical Records and Clinical Coding at BCH, explains: "If a child attends the emergency department more than once, something that unfortunately occurs all too often, we need to access their historic files. Finding the records was time consuming and unproductive. We decided it was time to move to an electronic patient records system."

> "Iron Mountain offered us a cost-effective comprehensive solution for scanning and storage."

Sue Hobday, Head of Clinical Records and Clinical Coding Manager, Birmingham Children's Hospital NHS Foundation Trust

IRON MOUNTAIN®

Industry

Healthcare

Challenge

With 45,000 emergency attendances annually, paper medical records had become complex to manage and store

Solution

Managed scanning and hosting service, enabling instant web access to digitised emergency admission records

Value

Electronic patient files have improved access to vital clinical records – safeguarding child welfare and improving staff productivity

"It's so much more efficient. Going forward, it means that our staff will save a great deal of time as they will no longer need to go searching for paper files."

Sue Hobday, Head of Clinical Records and Clinical Coding Manager, Birmingham Children's Hospital NHS Foundation Trust

Solution

To deliver immediate benefit, the historic patient records would have to be scanned to enable instant access. The digital files would also need to be created in a form suitable for upload into an electronic patient records (EPR) system at some point in the future. BCH determined that historic records going back at least 12 months would need to be digitised, so a service provider was sought for the significant back-scanning project.

Fortunately BCH didn't need to look far. Sue Hobday says: "We had been using Iron Mountain for the storage of our clinical records and we already had a four-year framework contract in place." Guided by Iron Mountain document management specialists, BCH developed a plan for the back-scanning project. "Iron Mountain offered us a cost-effective comprehensive solution for scanning and storage," adds Sue. "The bonus was that Iron Mountain was already holding some of the records that we needed to scan, which would improve the efficiency of the process."

A specification was created for the metadata needed to identify each file. Once files are scanned, an advanced optical character recognition system matches the scanned file to the patient's unique hospital number and enables the creation of other metadata fields to complete the record. The scanned patient files are then uploaded for hosting on the Iron Mountain digital records centre for images (DRCI). The contract provides for 500GB of storage capacity, more than sufficient for many years to come.

Up to 25 authorised BCH staff are able to access patient files through a secure web-based portal using a patient's name and/or hospital number. For added patient confidentiality, as well as normal access controls, patient records can only be printed from the Iron Mountain DRCI by a strictly controlled group of accredited BCH staff.

The back scanning project involved around 40,000 patient records which were all digitised at the Iron Mountain specialist facility at Stone in Staffordshire. The scanning process is certified against the requirements of BS10008, which means that images are of a sufficient quality and integrity to be used in a court of law.

During the scanning process Iron Mountain provided a scan-on-demand service if any patient file in its custody was required urgently. "The scan-on-demand service during the back-scan phase was fantastic," says Sue Hobday. "The team couldn't have been more responsive to individual requests."

Going forward the plan is for patient records to be stored on site for between two and four weeks, before being collected by Iron Mountain for scanning, hosting, and archiving of the hard copies.

Value

Clinical teams at the hospital now have almost instantaneous online access to patient files for all previous emergency department admissions. "It's so much more efficient," confirms Sue Hobday. "Going forward, it means that our staff will save a great deal of time as they will no longer need to go searching for paper files."

The new process will help improve patient care as multiple admissions are far easier to spot. Moreover, in the event of child protection concerns, patient records will be available to investigation teams in an instant, enhancing the speed and quality of patient welfare decision-making.

Information security has been improved too. The Iron Mountain process provides a full chain of custody as well as enhanced governance through a complete audit trail of individuals who have viewed or printed patient files via the DRCI.

The back-scanning project also provided the opportunity to improve the indexation of hospital paper-based records so that hard copy files are easier to locate should they ever be needed. And, with a process now in place for the routine ongoing scanning and off-site storage of new patient records, the space previously allocated for the storage of paper-based records at the hospital is now available for more productive use.

Sue Hobday sums up: "Iron Mountain has been very supportive and responsive throughout the project. We couldn't have asked for more."

Recently, Iron Mountain has extended and developed the above service to enable faster access to urgent care records.

Service extension

Iron Mountain has been working with Birmingham Children's Hospital for 10 years, scanning patient records from their Accident & Emergency Department which sees around 200 admissions per day. When children are admitted to the hospital's A&E department, records are created which need to be digitised and made available to a potentially wide group of stakeholders - these can include social care and the police as well as other hospital departments. Historically, the hospital would keep 2-4 weeks' worth of records on site but this caused delays in making this information available. The Trust therefore decided to work with Iron Mountain to reduce this delay as much as possible and enable fast access to critical records.

The two organisations worked together, as well as with the clinical team at the hospital, to create an accelerated digitisation route for these emergency records. Previously, the hospital used weekly collections, they have now upgraded this to a daily collection of files which are then digitised by Iron Mountain at a local facility and made available to the Trust the same day that they are collected. This service runs seven days a week, every day of the year. The transformation to the department's processes - accessibility and shareability of critical data within a very short timeline - have significantly improved the care the hospital is able to provide and the level of improvement has meant that the team have won the Acorn Innovation Award for service innovation for their work in supporting joined-up services to children.

Sue Hobday, Head of Patient Administration Services, says, "The Iron Mountain team, particularly Andy Hughes and Duane Clarke, were able to upscale to help us meet our tight deadlines and have been extremely responsive in resolving issues and helping us ensure the service was running as smoothly as possible. And because Iron Mountain are accredited for scanning to BS10008 level (legal admissibility of scanned records) we have implemented a robust destruction programme and are able to save on long-term storage of the documents. I would like to thank our internal staff too, particularly Anand Karani, Becky Ayres, Julie Khera-Thomas, Navjit Samra and Shazia Jabeen, for their work in making this happen."

Iron Mountain is proud to be a partner in helping the NHS better support patients through improved access to and use of information.

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About Iron Mountain

Iron Mountain Incorporated (NYSE: IRM), founded in 1951, is the global leader for storage and information management services. Trusted by more than 220,000 organizations around the world, and with a real estate network of more than 85 million square feet across more than 1,400 facilities in over 50 countries, Iron Mountain stores and protects billions of information assets, including critical business information, highly sensitive data, and cultural and historical artifacts. Providing solutions that include secure storage, information management, digital transformation, secure destruction, as well as data centers, art storage and logistics, and cloud services, Iron Mountain helps organizations to lower cost and risk, comply with regulations, recover from disaster, and enable a more digital way of working. Visit www.ironmountain.com for more information.