



ccube solutions
paperless healthcare

Case study

Aintree University Hospitals eliminates paper case notes
with CCube Solutions

Aintree University Hospitals NHS Foundation Trust, one of the busiest Trusts in the country, has successfully used the CCube EDRM solution to operate health care without paper case notes. Part of the Trust's aggressive strategy to invest and use technology to drive service improvements, the CCube solution has brought Aintree clinical and operational efficiencies, together with £1m annual savings and a one-off estates benefit of £15m.

About CCube Solutions

CCube's modular electronic document and records management solutions are designed to deliver paperless healthcare throughout the NHS. With over 25 Trusts using CCube solutions – and a number which have stopped using paper casenotes altogether - CCube is already delivering measurable clinical and financial benefits. Portal technology and support for mobile devices ensure that up-to-date clinical information is available at the point of need.

With 12 years' experience in the EDRMS market, CCube also supplies enterprise content management solutions to local government and the private sector.

Why CCube?

Like all NHS Trusts, Aintree was struggling to deal with the exponential growth in paper-based records. Administrators were fighting to keep track of individual records stored on 10 miles of shelving and clinicians were having to sort through 1000s of pages of notes to extrapolate quickly and efficiently the knowledge they needed for each individual patient episode.

"Quite simply, we all felt there had to be a better way of doing it", said Ward Priestman, director of informatics.

The Trust's solution was to award a contract to CCube Solutions, and its partners Capita TDS and Kodak, to digitise a records library amounting to some 55 million pages of notes and roll out the electronic medical records system Trust-wide.

CCube was chosen both because it offered a cost effective solution and was willing to tailor the software to meet the Trust's needs. The company also had a well-established and successful deployment history and methodology.



Aintree's EDRMS Benefits

Cash savings:

The Trust is already making £1m of annual savings. This has come from redeploying records staff, cutting transport costs and closing down three records libraries. One of the records libraries has been converted to a state of the art endoscopy suite - bringing a £15 million estate benefit to the Trust and a whole new floor available for patient care.

"The savings have all come out of non-clinical budgets", explained Professor Mike Pearson, clinical evaluation lead at the Trust. *"This project hasn't reduced our clinical spend at all."*

Benefits to clinicians:

- Patient case notes are available when and where the clinician wants to look at them, 24 hours a day, 7 days a week, even when working at home or in the community
- Clinicians are able to customise how they want the case note information to be presented according to their needs or the needs of their specialty
- Use of forms recognition allows for intelligent sequencing and structuring of each case note. Quick click-through to the important information supports the real-time retrieval of knowledge
- Multidisciplinary teams can independently and simultaneously review health records, including radiology images, and collaborate on a treatment plan.

Operational benefits to Trusts:

- Portal technology brings different systems together, with a single, safe point of access
- Improved sharing and collaboration among staff and break down in information silos
- Improved data security
- Full audit trails of access to patient data
- Use of eForms and workflows enables standardisation of processes

Aintree's Approach

A key requirement for Aintree was that information was available in the right format for clinicians. "Clinicians had to be able to get the information as easily or more easily than they did on paper", said Professor Pearson.

"Good records management is two things: having records available 24/7 and being able to get what you want from them."

At Aintree, the digitised notes are available to staff as an electronic health record, accessed via the Trust's Patient Management System (PMS).

Various other IT solutions are also integrated, including pathology and radiology results, pharmacy, prescribing, and theatre systems. All information pertaining to a patient can therefore be accessed by one route, which gives one view of a patient and their medical history and means the Trust avoids having information silos.

The use of portal technology and the fact that CCube supports mobile working means that clinicians can navigate through case notes from their desktop, laptop or tablet PC and trolley-based computers.

As important, clinicians were involved from the outset in helping define the look and feel of the system.

CCube and Aintree implemented an "intelligent document searching" facility which identified designated forms in use. The solution generates a new, "virtual view" of the traditional casenote which enables clinicians to quickly find documents of interest without having to search for and flick through many (electronic) pages, for example.

"We've used this to identify specific forms for specific clinicians", explained Professor Pearson. "For example, if someone wants to get an echocardiogram, we can recognise an echocardiogram sheet and tag it accordingly.

"All the important results can be found at 3 or 4 clicks and each specialty has been given the opportunity to customise their needs into this package."

Case notes can also be viewed chronologically.

About Aintree

Aintree University Hospitals NHS Foundation Trust provides acute healthcare to a population of 330,000. It is a teaching hospital for the University of Liverpool and a tertiary centre providing specialist services to a much wider population of around £1.5m.

Annual income	950
£211m	Inpatient and day-case episodes
Beds	73,300
Outpatient attendances	257,000 (77,840 of which are new patients)
A&E attendances	87,900 patients

"We're saving £1m a year as a result of getting rid of our records libraries and all the administrative and transport costs associated with moving thousands of case notes a week. Plus we've got a £15m estate benefit from converting our largest records library to a state of the art endoscopy suite." Ward Priestman, Aintree director of informatics.

"Clinicians have found the software very intuitive. We've involved them from the outset to make sure they are able to retrieve the patient information they want quickly, and each specialty has been given the opportunity to customise their needs into the system." Mike Pearson, Aintree professor of clinical evaluation.

"All the savings have come out of non-clinical budgets – this project hasn't reduced our clinical spend at all". Mike Pearson, Aintree professor of clinical evaluation.

Next steps

A key part of Aintree's EPR strategy is to further reduce dependency on paper. The current EDRM configuration takes care of the legacy paperwork; but what about the on-going use of paper? EDRM can readily capture, store, manage, and deliver electronic information, without the need to print and scan. CCube Solutions is working closely with The Trust on solutions that combine the use of Electronic Forms with mobile devices, to support rapid data entry by time-pressed clinicians using low cost and familiar devices.

A number of proto-types are on trial - these offer seamless, real-time integration between disparate systems while the data is being captured and the automatic integration of completed forms within the patient's case note – all without paper and without re-keying data.

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