Arrendale Digital Dictation at Royal Derby Hospital

A White Paper describing
Digital Dictation Workflow Efficiency

By David Seaton

Head of IT Services
Derby Hospitals NHS Foundation Trust
Derby, England   April 2017

Introduction

The Royal Derby Hospital is the newest hospital in the East Midlands. Officially opened in April 2010 by Her Majesty The Queen and His Royal Highness The Duke of Edinburgh, we now care for more than 180,000 people as inpatients, outpatients, emergency patients and day cases. This equates to around 625,000 visits from patients each year.

Our hospital will bring many extra benefits to the 600,000 patients who come to us for their care every year. With the first roof-top helipad in the East Midlands, state-of-the-art intensive care facilities and enhanced services for stroke and cancer care, to name a few, we always put patients at the heart of everything we do.

At Derby Teaching Hospitals we pride ourselves on hospital cleanliness and our facilities will put us in the best possible position to maintain our high standards. We are also improving privacy for patients with more than 200 single en-suite rooms and 4-bed bays for patients on our wards.

From now on, all of our specialist services will be under one roof. The design for the building allows different departments to be located together to reduce the time patients spend in the hospital. We can provide more one-stop clinics and more day-case treatments which will reduce the number of visits patients need to make to hospital and make coming to here easier for everyone.

Investment in the latest technology will continue to bring our services to the cutting edge of medical advances and our highly skilled staff are proud to be providing services as efficiently as possible.

Our vision is to build on our achievements and we will take great pride in caring for our patients in a clean, safe and technically advanced environment.

Digital Trust by 2020

The structure of the hospital itself and the quality of care provided inside this impressive, state-of-the-art healthcare facility is something Derby can be truly proud of.

At Derby Teaching Hospitals we intend to be a truly digital Trust by 2020, fully interfacing with our community partners and the wider NHS. Clinical information will be captured, shared and used digitally allowing for improved communication throughout the patient journey. Paper casenotes will be completely replaced by fully interoperable digital eCasenotes within an integrated EPR.

Refer to the Figure below. Derby Hospitals is well advanced with this digital vision, with clinical information being captured into the EPR - eCasenotes from the specialist clinical systems from various points within a patient's health journey. Information will increasingly be captured through a variety of methods including direct digital entry into bespoke electronic forms and screens, scanning annotated diagrams assisted by barcode technology providing the metadata about the document, the patient and the clinician. Digital dictation is well established for clinicians creating documents and more recently voice recognition is being developed.

As a Digital Trust, we are phasing out the outdated and inefficient paper processes by replacing them with both clinical and administrative services to improve quality, safety and timeliness of patient care.

One of the key components of our digital solution is Digital Dictation supplied by **Arrendale Associates**.
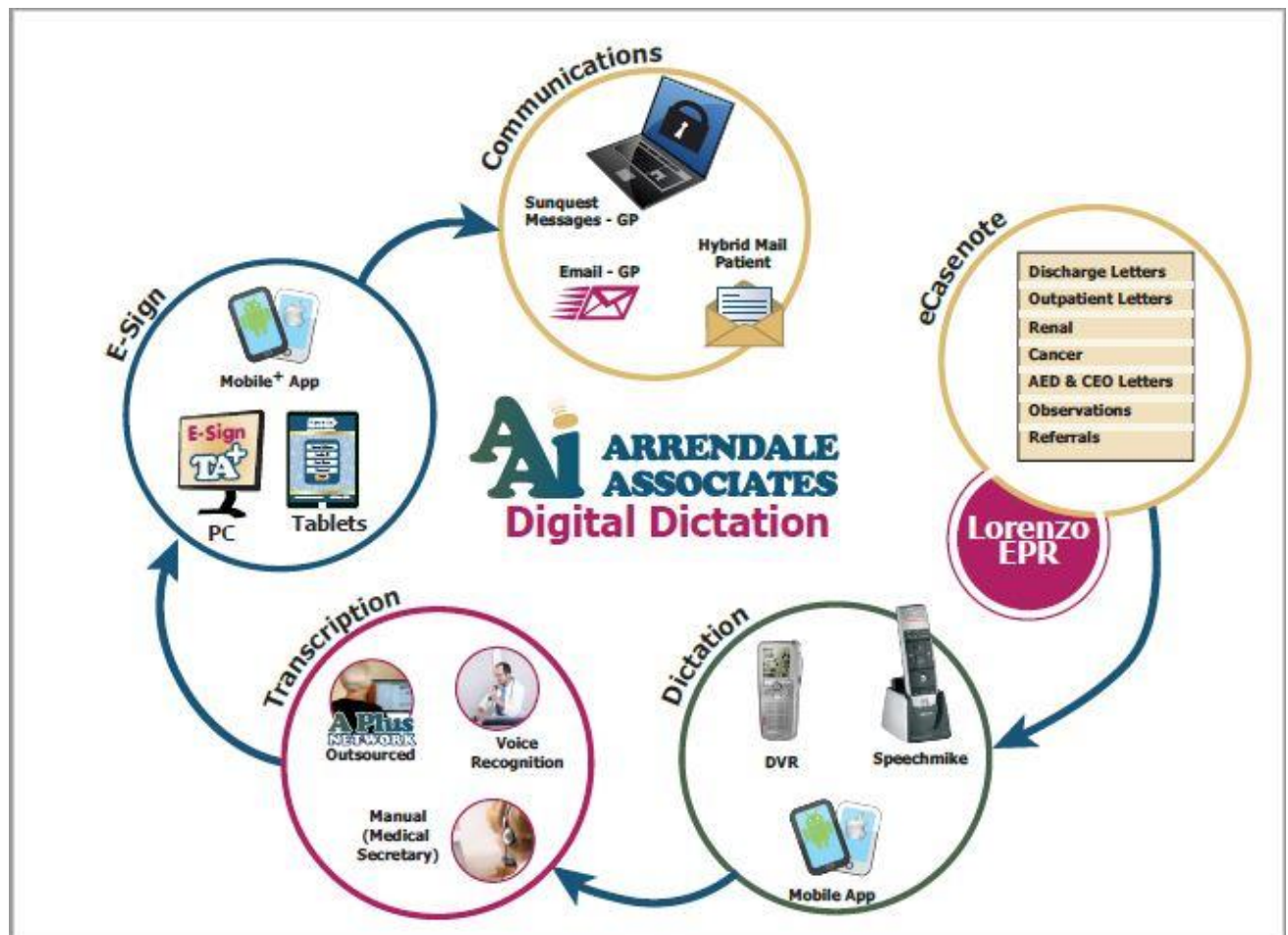
How Digital Dictate Is Used to Help Us Work Towards a Paperless Hospital

At Derby Teaching Hospitals we use CSC Lorenzo as our EPR solution to manage the patients' health journey from referrals to appointments and by clinicians as well as administrators. This supports clinicians in making decisions along the care pathway and across care settings by providing a real-time patient record.

Lorenzo sends the patients appointments and demographics to our Digital Dictation system.

Our Digital Dictation system is a modern setup that is used in order to produce everyday documents which were traditionally produced using analogue tape. The patient information was then stored in a paper casenote and copies posted to GPs and patients. In 2009, we implemented the Digital Dictation system which meant all audio files were now filed securely on a central server and efficiently transferred to the secretary for transcription. The workflow element of this advanced system allows our users to access audio files instantly and transcribe securely. Once transcribed the document is reviewed by a clinician, electronically signed and automatically sent to our eCasenote; if required, a copy is automatically sent to the GP practice and patient.
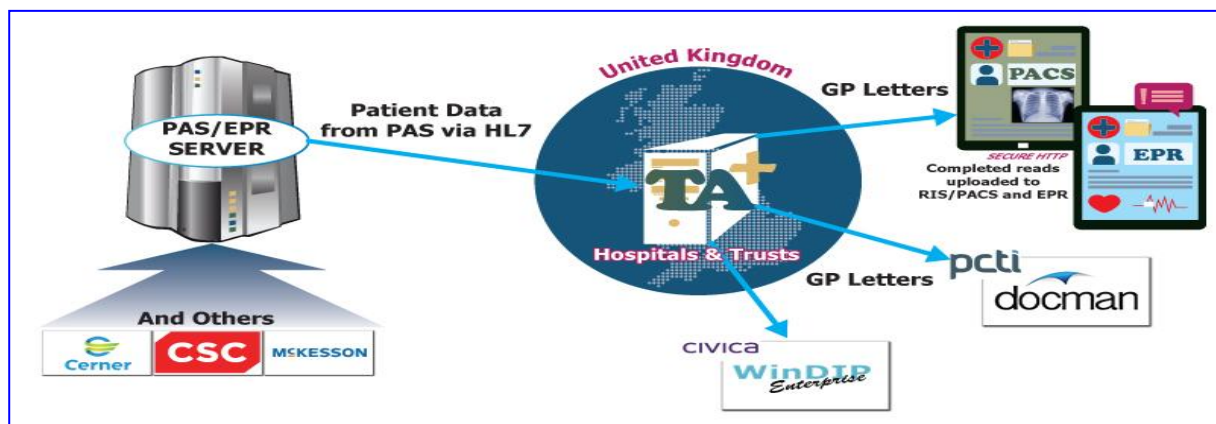
The following applications have been developed to ensure patient care is achieved efficiently and in a secure manner which removes the need for paper:

TA+ - This application contains the patient information such as up-to-date demographics and appointments within the hospital. The patient's information is always updated via Lorenzo which is used throughout the hospital in the wards and clinics. TA+ is web based so it can be accessed anywhere in the hospital, out in the health community sites and at home. Therefore, our clinicians can access the patient's details at any time to support any clinical decision. In addition, it is used for secretaries and clinicians to manage priority letters. Urgent letters can be immediately transcribed and sent to the GP or patient electronically avoiding any delays. TA+ is used for e-signing of patient letters.
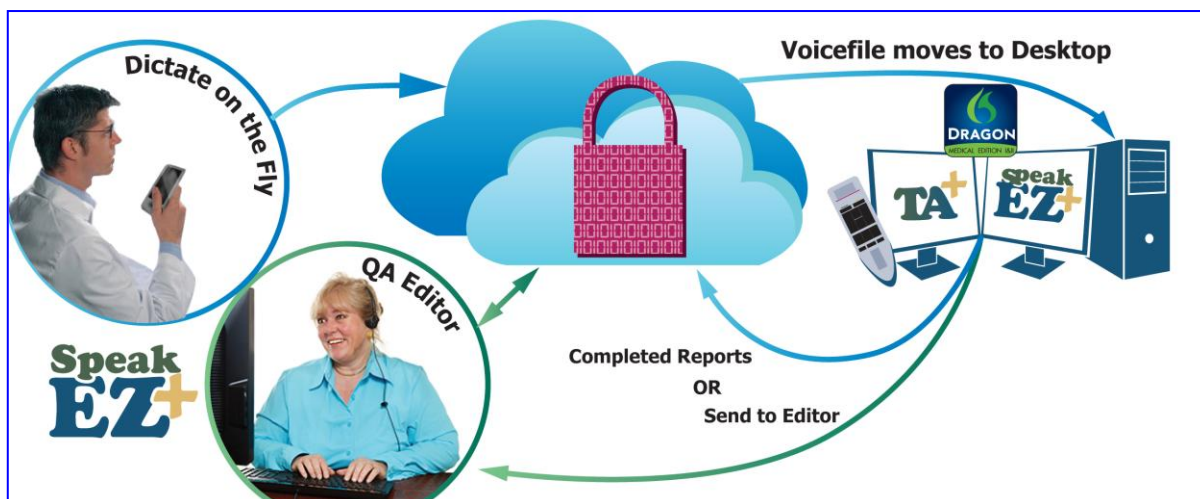
We use devices such as Speechmikes and DVRs to record audio. As soon as the clinician has submitted the audio from a clinic, the dictation file is available for the secretary to transcribe or forwarding to our outsourced transcription provider. Recently, we started to pilot a new Smart Phone APP that allows us to download a clinic list and upload the dictation files against a template containing the patient demographics. This reduces the amount of time the clinician spends on the system and improves quality because the patient demographics are linked to the dictation automatically. The secretary can then transcribe the dictation and finish the letter ready for eSigning. The APP also has the capability to let you eSign the document which means it can be done from anywhere in the hospital.

Speech Recognition

Speak-EZ+ is the latest product which we are working AAI to pilot for Voice Recognition. This is single application that can be used for both front end and back end voice recognition and then eSigning in the one application. Clinicians can see the text being created as they dictate into a template. This can then be eSigned, corrected or sent to the secretary for further information. However, for some clinics it can be preferable to use the back end VR to avoid any distraction for the patient. The Speak-EZ+ software converts the voice file to text and merges with the template which can then be reviewed and eSigned. Documents created and signed in Speak-EZ+ will be automatically sent to our eCasenote system, GP surgery and the Patient.

How are the Letters Accessed by Care Providers and Patients without the Need to Use Paper?

Patients. Sending letters by email had been a long- standing ambition for the Trust, to improve the patient experience. It is also an important strand of a number of national standards. This ambition has been realised at Derby Teaching hospitals. Working with our hybrid mail provider 'Synertec' we provide a mail service to patients that opt for the email copy rather than paper.

GPs. Majority of the GP surgeries prefer the documents to be sent direct to their GP system via our Sunquest messaging which inserts the document directly onto the GP system. For surgeries not connected to the Sunquest messaging service, we use secure email.

This means the GP practice receives the patient's documents as soon as the document has been eSigned. No more printing or mailing letters to GPs.
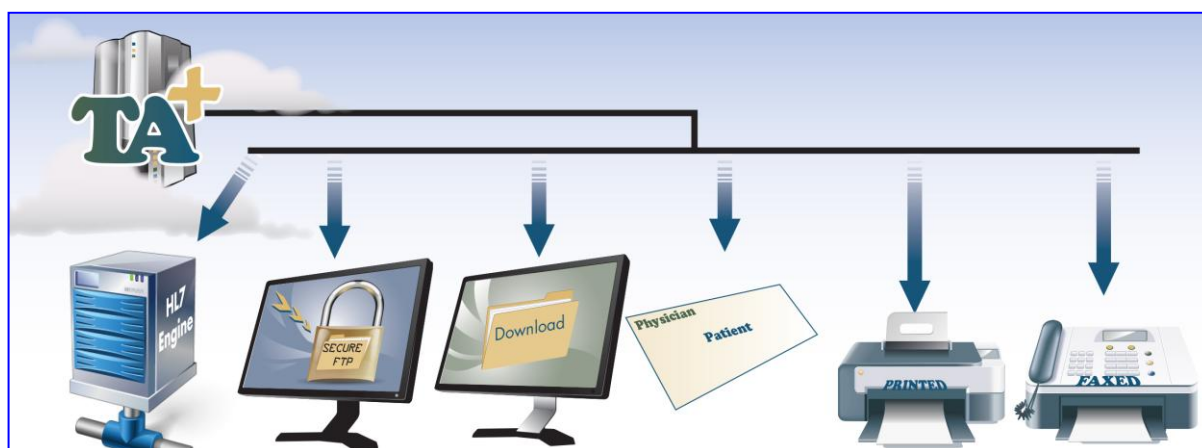
eCasenote Benefits

At present, all patients have a paper casenote but the number of documents being stored is reducing and will soon be of limited use because we do have clinics now operating without the paper documents. The Digital Dictation system manages the creation and flow of letters for all Outpatients appointments without the need to produce any paper copies. This is a significant move forward for our paperless clinics.

Clearly the Benefits Are:

- Improved communication and sharing of clinical information between staff, both within the Trust and in the wider health community

- Reduce space pressures within Casenote Services and Outpatient areas

- Improved time critical access to clinical information and reduction in missing documentation

- Cost savings associated with electronic patient records through workforce change and reduction in storage and transport costs

- Better patient care and experience because of more comprehensive and easily searchable information in one place

Some Quotes about Paperless Systems:

"Not having to carry large paper casenotes is liberating"   *Consultant*

"I always carry my mobile phone, so using it for dictations is very handy and having the patient list is helpful"   *Consultant*

"The dictations are a lot clearer from the Mobile APP than the speechmikes"   *Medical Secretary*

"We enjoy working with Derby Teaching Hospitals when we are developing new products"   *Arrendale Associates, Inc.*

Summary

Create the appointment in Lorenzo

Dictate the letters in Arrendale Mobile+ application using the in-built clinic list of patients

Letters are transcribed in SpeakEZ+ using Dragon Voice Recognition

eSign letters in TA+, Mobile+ or SpeakEZ+

Read the letters in Lorenzo-WinDIP

Read the letters at the GP Surgery

Send letters to our patients using hybrid mail

A Full Digital Flow of Clinic Letters

NHS Derby Hospitals