



Case Study

Speech recognition technology speeds up patient referrals at North Cumbria University Hospitals NHS Trust

Challenge

To improve service to patients by reliably meeting referral targets.

Solution

Introducing speech recognition software and high quality digital dictation hardware leads to fast, accurate dictations which staff can turnaround faster.

Results

- Clear, accurate dictations result in higher levels of productivity
- Clinicians' time freed-up to deal with other tasks
- ► Faster patient referrals.

Background

North Cumbria University Hospitals NHS Trust serves a population of 320,000, around 50% of whom live in rural communities. Acute services are provided at three sites, all about 40 miles apart. The Trust also supports a wide range of clinical and diagnostic services located in nine community hospitals across the region.

Until mid-2017, the Trust used an analogue system for dictations. Clinicians either self-typed letters or recorded dictations onto tapes which they handed over to the secretarial team for transcription.

The process was unsatisfactory in terms of productivity and patient service for numerous reasons. Manually handing over tapes across the wide-spread sites could lead to delayed referrals, with urgent referrals being a particular area of concern. Staff also needed to constantly guard against tapes going missing which would lead to clinicians having to revisit their notes to repeat dictations. Secretarial staff frequently found that dictations on analogue tapes were unclear

and would spend time clarifying wording with the original authors. As well as taking up clinical time, these issues could ultimately contribute to delaying patient treatment and the Trust being penalised for missed turnaround targets.

The Trust decided to invite an experienced supplier to bring the document processing system up-to-date to solve the issues they were facing. A neighbouring Trust and departments within North Cumbria Trust that had already worked with Voice Technologies recommended us for the project as the ideal partner to deliver the improvements that were needed.

Accurate speech recognition eliminates errors and delays

Clear sound recording, accurate and quick speech recognition and ease of use were the key criteria the Trust was looking for in their new document creation system.

Our project team replaced analogue tapes and out-of-date microphones with Philips SpeechMike Premium handheld digital dictation devices which have features specifically designed for the healthcare sector such as a free floating, decoupled microphone for precise recording, antimicrobial housing and buttons and a trackball for integrated mouse function.

Combined with these user-friendly devices, we installed speech recognition software – Dragon Naturally Speaking Medical Edition. As well as containing medical terminology, it allows users to create custom word lists and voice commands. Significant time is saved by speaking a simple command to generate the full text of a standard reply, a signature block, or other boilerplates.

Our project team installed the hardware and software on-site, provided full training and we also provide ongoing support to ensure the system continues to run smoothly.

Immediate improvements for staff and patients

The new system was initially rolled out in the oncology department where it was installed on 13 users' PCs across two sites. Installation was swift and seamless thanks to our familiarity with NHS IT systems.

Roaming profiles allow users to access their speech profile on any of the PCs that have the software installed. This offers convenience for users and helps to improve productivity and reduce turnaround time.

Administration of the system is straightforward with clinicians and secretaries effectively managing and sharing dictation files and documents. Dictations can be prioritised according to urgency.

Accurate speech recognition has led to fewer errors in documents so less time is spent on editing, freeing up staff for other tasks.

Previously, there was a four week backlog with an average of 35 tapes awaiting action. Now, the turnaround target is less than seven days. An additional benefit of the draft notes being immediately available for clinical staff means that referrals are processed without delay.



We supplied Philips SpeechMike Premium handheld digital dictation devices.



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