

Speech recognition eases CHIREC's adoption and use of Electronic Patient Records

Goals

- Simplify the capture of patient information in the EPR
- Replace handwritten notes in accordance with CHIREC's digitisation policy
- Deploy an easy and centralised solution across the seven sites linked to CHIREC

Solutions

- Dragon Medical Direct, a cloud-technology based, ready-to-use and scalable speech recognition solution
- Used in conjunction with the b-Doc EPR

Results

- Fast and instantaneous capture of medical information in the EPR system
- Less time spent on generating medical documentation
- Patient medical data made available in real time to GPs and external specialists
- A stepping-stone to achieving CHIREC's "paperless" goal

CHIREC consists of five hospital sites, two medical centres and two polyclinics. The hospital group has 1,100 beds and 4,000 employees, including 1,150 clinicians. During the transfer of Clinique Edith Cavell and Clinique du Parc Léopold to the new Delta Hospital in Auderghem at the end of 2017, the group's activities will focus on two hospitals in Brussels (Delta, Ste-Anne St-Remi) and a hospital in Walloon Brabant (Braine-l'Alleud - Waterloo). The medical-surgical outpatient facility (Basilique) and the four Brussels-based polyclinics (Edith Cavell, Parc Léopold, Lambermont, City Clinic Chirec Louise) will provide additional care.



Julien De Lathouwer
Project manager and IT analyst
at CHIREC

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Encouraging the use of the Electronic Patient Records (EPR) among CHIREC clinicians

Updating the patient's medical records is a daily challenge for healthcare professionals. Keeping patient records up to date is key to driving quality and coordinating care in the context of multiprofessional and multidisciplinary treatment. Numerous studies have already shown the links between improving the quality of the patient record and the quality of care. A poorly kept or incomplete patient record can result in additional examinations (because the results were not recorded) and wastes the time of clinicians who have to search for the missing information. On the patient's side, it is easy to imagine the risks and dissatisfaction. CHIREC's IT department decided to provide clinicians with speech recognition capability to make it easier to use the EPR and to simplify the burdensome process of capturing all data related to the individual patient's medical information.

“We encountered a lot of scepticism from clinicians when we first asked them to input information directly into the Electronic Patient Record. In most cases this was because they were unfamiliar with the software. Many of them preferred to scan their handwritten notes, which was clearly against CHIREC's paperless policy. When we talked to the clinicians about using

speech recognition, they were very open to the idea. We even put in place a Speech Recognition Charter so they would commit to using our EPR solution b-Doc,” explains Julien De Lathouwer, project manager and IT analyst at CHIREC.

Dragon Medical Direct was chosen because CHIREC consists of numerous sites and a complex network. Dragon Medical Direct is a cloud-technology based solution which can be deployed easily across CHIREC's various clinics with minimal impact on the resources. This light weight solution can be installed on any medical workstation or laptop in just a few clicks. No complex configuration is necessary. Once installed, clinicians simply open the application, place the cursor where the recognised text should be inserted and start dictating.

“The centralised profiles, simple licence management and the fact that we can see how the tool is being used (info: Dragon Medical Analytics). “The advantage for project managers and IT supervisors in a hospital group like ours is that Dragon Medical Direct allows us to standardise the use of the Electronic Patient Record across our sites in just a few minutes,” says Julien De Lathouwer.

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Dr Denis Goldschmidt
CIO at CHIREC

Dragon Medical Direct was trialled for six weeks by selected clinicians. At the end of the trial, the feedback was almost universally positive. Users were particularly impressed by the precision and speed of the software. They also appreciated how easy it was to use, especially the user interface. Clinicians who had never used speech recognition before were absolutely delighted with the result. They now spend less time recording medical data, which improves their consultations as they have time to develop a new kind of patient relationship.

“Speech recognition is a useful tool for capturing medical information and a game changer when it comes to deploying an EPR.” Dragon Medical’s qualities as a standalone application are well known, but issues related to managing and troubleshooting each workstation individually were a major stumbling block to our deploying the solution across our institution with the desktop version “Practice Edition”, previously used. With the arrival of the Dragon Medical

Direct cloud-technology version, these issues have been resolved without compromising the quality of the speech recognition,” says Dr Denis Goldschmidt, CMIO.

Nuance’s long-time certified partner Dictée-Center and Dragon Medical Direct distributor Ordigital supported CHIREC’s IT team in deploying the cloud-based speech recognition solution.

Sharing medical information with patients and colleague clinicians made easy

Speech recognition runs as a service offered to CHIREC clinicians to file medical reports, write letters and fill in the electronic patient record by dictation. Some use speech recognition during the consultation, others immediately afterwards. Some clinicians delegate the editing and finalisation of their reports to secretaries, while others take control themselves including the use of customised voice commands and auto-texts.



Dr Pierre-Jean Verheyden: “Dragon is the best dictation software for complex texts, and the thoughtful use of auto-text, in particular, enhances the precision of the recognition.”

Additionally, speech recognition contributes toward the continuity of treatment by making medical information available throughout the EPR. This means the patient, the patient’s GP and involved clinicians, whether working in CHIREC or otherwise, can all consult the relevant data in real time.

Communication and change management: the key to a successful project

Often, new users do not immediately appreciate the freedom speech recognition offers. It is therefore essential, prior to deployment, to analyse their needs to ensure that speech recognition satisfies their expectations and will really be used. Next, a trial period allows IT to validate the use case, make tweaks to the system, and observe how the clinicians use the

solution. “I would suggest that my colleagues build the case for speech recognition very carefully, and then make sure the clinicians use it as much as possible,” recommends Julien De Lathouwer.

“Good communication with clinicians is essential to the successful adoption of speech recognition. Training sessions are incredibly important during the pilot phase because it gives IT a chance to talk with clinicians, act upon their feedback and identify their individual needs. By reaching out to clinicians in the test phase we were able to compile a comprehensive user guide,” adds Nicolas Desmyter, Healthcare Consultant at Nuance certified distributor Ordigital.

“When I took up my position two years ago, the task was to reduce the usage of paper in our hospitals by 90%. And we still have a long way to go. But one thing’s for sure, speech recognition is a key solution that we will use to continue to drive this process,” concludes Julien De Lathouwer.



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Nuance Healthcare empowers healthcare organisations and individual doctors to accurately capture and transform the patient story into meaningful, actionable information in 22 languages. Today, over 10,000 healthcare organisations and 500,000 users worldwide trust Nuance speech recognition technology to deliver higher quality care, improve financial performance and enhance compliance efforts.