

MediSpeech powered by SpeechMagic™

Now everybody speaks



Radiologists and pathologists have long been heavy users of speech recognition. The Belgian hospital AZ Sint-Jan has deployed speech recognition in many other departments, and reports success stories across the board.



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*Dr. Annick Van den Bruel,
Internal Medicine*

Known as the Venice of the North, the beauty of the Belgian city of Bruges prompted UNESCO to include its medieval centre on the World Heritage list. The city cherishes its past, while embracing the future. Its 900-bed hospital AZ Sint-Jan, just across the canal that surrounds the city's historic heart, is one of the most advanced hospitals in Belgium. Its combination of electronic medical records with speech recognition sets an outstanding example of efficient healthcare workflows for the rest of Europe.

The deployment of speech recognition technology at AZ Sint-Jan was driven by the Radiology and Pathology departments. The improvements they achieved didn't go unnoticed. “We were surprised by the sudden speed with which radiology reports were delivered to us – within just one or two days” says Dr. Annick Van den Bruel, gastro-endocrinologist at AZ Sint-Jan Hospital.

With a massive growth in the number of consultations, the Internal Medicine department faced difficulties delivering their reports to General Practitioners (GP) on time. Although doctors were making a real effort to dictate their reports quickly, the backlog in the transcription department always delayed the availability of the final document. “Our letters are critical to provide GPs with reliable information. We wanted to serve them at the same speed we were served by our own Radiology department,” says Dr. Van den Bruel.

“Of course, we could have employed more secretaries,” Dr. Van den Bruel adds, “but with another department being so successful with speech recognition, why not follow their example?”

Internal Medicine implemented G2 Speech's MediSpeech, which is powered by SpeechMagic™ – Nuance's (formerly Philips Speech Recognition Systems) industrial grade speech recognition technology.

Showing commitment

“Yes, we had troubles in the beginning – and the system even slowed us down in some cases”, recalls Dr. Van den Bruel. “Also, as radiology and pathology had such good experiences, our expectations were a bit high as well.” But the transition from the antiquated tape-based dictation hardware to the futuristic speech recognition software was worth the effort. Today, Dr. Van den Bruel smiles when she talks numbers:

- Report turnaround time has been reduced by 50 - 60%.
- Speech recognition-based transcription is at least twice as fast as manual transcription from a digital recording.

“A proper letter delivered within a few days is better for the safety of the patient and for collaboration with the GP. And the visibility of the dictated text on my screen has increased the level of detail provided in the conclusion of my reports.” says Dr. Van den Bruel. “I receive fewer calls as GPs are provided with trustworthy information enabling them to quickly continue the treatment of their patients.”



"Once the benefits are known, the demand generates itself. Today, apart from radiology, pathology and internal medicine, the dental, orthopaedics and gynecology departments are also working with MediSpeech powered by SpeechMagic™."

*Simon Nowé,
IT project manager*

From words to information

Simon Nowé, who is the IT project manager for speech recognition at AZ Sint-Jan Hospital, has worked closely with the SpeechMagic™ integration partner. He learned that the benefits of speech recognition can be maximized by using it to turn speech into information rather than plain text. MediSpeech powered by SpeechMagic™ identifies section headings in a dictated text and allocates each part of the report to the corresponding field in the hospital-wide electronic medical record (EMR) system. Thus, speech recognition facilitates data availability in the EMR, ensuring seamless communication between the various medical specialties. By structuring the information, departments are only provided with the relevant information from the EMR. "Internal Medicine, for example, can see the 'medische

voorgeschiedenis' (medical history) – which is not available to the dental department," explains Simon Nowé.

Finally, the reports are distributed to the GPs via the hospital's extranet or Belgium's dedicated virtual private network for healthcare organizations. "MediSpeech powered by SpeechMagic™ makes our entire workflow faster, easier and adds significant value for the physicians. It enables us to provide clinicians and GPs with better information faster," concludes Mr. Nowé.



Simplicity scores high

Dr. William de Groote has a passion for technology. He drove the digitization of the Orthopaedic department. The electronic patient record enables higher-quality care – as long as it is kept simple and doctor-friendly.

"Today, everything is digitized," he says. "There is only one written note left, because of a legal requirement. I use speech recognition after every consultation, after every operation. We dictate directly into the eDossier of the patient."

Working with good secretaries, however, is still important to keep the delay between dictation and the final letter at a minimum. "I see 60 patients a day. There's no time for me to make corrections."

Flexibility is key. The client/server-based system allows Dr. de Groote to dictate at multiple workstations. Simplicity should be at the heart of every healthcare IT system. "Keep it simple, make it idiot-proof", he advises. "When we consult a patient, we can't interact with computers. The workflow must be tailored to support the situation in which it is used."

The EMR has improved care. "Our morning shift finds all information from the night shift in the eDossier – we don't have to search for x-rays and reports. The eDossier is an enormous step forward."

In the complete workflow, MediSpeech powered by SpeechMagic™ plays a major role –facilitating data input and supporting a flexible, simple and connected hospital-wide workflow. Dr. de Groote is very satisfied: "9 points out of 10", he says. "I'm a fan!"

*Dr. William de Groote,
Head of Orthopaedic Surgery at AZ Sint-Jan & President of the Catholic University College of Bruges – Ostend*

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