MediSpeech powered by SpeechMagic™
Speech Recognition enhances service quality

Committed to the deployment of innovative technology, this hospital ranks information processing as a key strategic management role. Now it has become the first to provide all physicians with speech recognition, pushing the service quality to examplary levels. Unsurprisingly, The Hague's Bronovo hospital has the honour of providing care to the Dutch royal family.

"I worked for five years without speech recognition. But already after a few months I can tell that I wouldn't want to go back to the old days."

Marian Sinon,
Secretary, Internal Medicine

First Dutch Hospital to be all-speech recognition

Radiology speech recognition is well established in The Netherlands, with more than 80% of the radiologists working with Nuance SpeechMagic. However, radiology, as with pathology, is one of the more straightforward fields to deploy speech recognition, due to these report types being highly standardised and using specific vocabulary. Deploying speech recognition across an entire hospital, with a virtually unlimited vocabulary, is more of a challenge.

Bronovo neurologist, Dr. Pieter Lambregts, confirms that he has longer letters, with more information and more details than radiologists. He also has to include findings from other departments into his letters, e.g. laboratory results. The tape-based reporting system has become unsuitable in these times of information-driven medical care. "With twenty dictations on one tape, and piles of tape in the secretarial office, the analogue workflow delays the availability of medical reports. It is an outdated way of working, which needs to be changed. Not only in one department, but hospital-wide," says Dr. Lambregts.

Working with the experts

From his airy office Wilfred Reinhard, Bronovo's IT Manager, overlooks the hospital compound. "Information management is one of the key strategic tasks in our organization," he says. "We are constantly involved in testing, piloting, and implementing new technologies."

Mr. Reinhard knows that choosing the right supplier is the key to success for large-scale technology projects. The supplier must understand the needs of the customers and provide not only the technology, but he also demands the services to make a project successful. "Many hospitals are looking only at the financial aspects and the features. This is wrong. You have to partner with your supplier, share a common goal and motivate them to go beyond just selling a product." With G2 Speech, an integration partner for Nuance SpeechMagic, Mr. Reinhard shared a vision: "We wanted to realize the country's first all-speech recognition hospital. Because we knew how critical the availability of clinical information is for the delivery of care."

"Many hospitals are looking only at the financial aspects and the features. This is wrong. You have to partner with your supplier, share a common goal and motivate them to go beyond just selling a product."

"We wanted to realize the country's first all-speech recognition hospital. Because we knew how critical the availability of clinical information is for the delivery of care."

In a first step, the hospital implemented digital dictation. Next, they upgraded the 153 physicians, with their secretaries, to speech recognition – cluster by cluster. Dr. Lambregts' cluster included Neurology, Pneumology, Cardiology, Psychiatrics and Radiotherapy. The benefits are on the organizational side: "We won a lot of

NUANCE

time by eliminating the tapes and by being able to directly link the dictation to the patient record," he says. While the hospital is currently using paper records from which physicians scan the patient number into the dictation, plans are well advanced to introduce electronic medical records, which will further streamline workflows.

Dr. Lambregts believes that "for secretaries life is more fun" now. While in previous days, they had to concentrate on the difficult, medical terms, these are now recognized almost always correctly. "It's the small words in the text which require secretarial attention," reports Dr. Lambregts.

"The overall efficiency gain and time saving is obvious, and it allowed us to increase our department's activities by 20% without having to hire additional secretaries," says Dr. Lambregts. "I can only recommend other hospitals to follow our example."

Time is quality

In Internal Medicine, where Marian Sinon works as a secretary, they dictate and transcribe 40-50 letters a day. Dictations range mostly between 4 minutes for inpatients and 2 minutes for outpatients. Ms. Sinon says that they managed to reduce backlogs by over 90%, which makes her love the system.

In general, Sinon says, the recognition is very good. However, some doctors do better than others, which pretty much depends on the clarity of their dictation and on their willingness to stick to the rules. "It's hard to change old habits, even if this is to the advantage of the users," she realized. As a key user, she's able to solve small problems herself, thus taking an important role in helping the system gain broad user acceptance quickly.

"By defining key users, we have avoided many troubles resulting from user resistance in large-scale system changes," says Mr. Reinhard. "This is what I mean when I say that a supplier needs to do more than sell a product. They need to provide the services and expertise to implement it and to make it successful."

From an IT perspective, the most critical benefit is the faster availability of information due to reduced delays in the reporting process. "For us this is the critical quality indicator, as we are responsible for ensuring efficient, fast and accurate information management," says Mr. Reinhard. "We are early adopters of technology and it is an image factor for our hospital to always be at the leading edge. In the case of speech recognition, our early adoption has paid back very quickly."

Tips

Wilfred Reinhard, Bronovo's IT Manager recommends:

Training:
Identify physicians within a department to train other users. Physicians as trainers are very successful as they understand the needs of their colleagues who will work with the system.

Transparancy:
As you will need the hospital-wide commitment to implement a hospital-wide solution, you must inform everybody in advance about the benefits of the system and the changes it will bring.