

CASE STUDY

Reports created rapidly with speech recognition

Dragon Medical Direct is a speech recognition solution that is reducing the burden on staff at the Neuchâtel Hospital Group (RHNe) and saving time when it comes to preparing medical documentation.

The Neuchâtel Hospital Group (RHNe) is a hospital network with multiple sites in the canton of Neuchâtel. The group consists of two acute care sites in the canton's two urban centres (Pourtalès in Neuchâtel and La Chaux-de-Fonds). It also has two rehabilitation sites (Le Locle and Val-de-Ruz), a palliative care station (La Chrysalide) and a regional clinic in Val-de-Travers.

Together with other organisations belonging to the Neuchâtel health care system, RHNe provides efficient, sustainable medical services at the highest level. All in all, RHNe provides personal care tailored to the patient in its inpatient, day-patient and outpatient departments.

Initial roll-out in radiology and medical imaging

On the initiative of Dr. Emilie Nicodème-Paulin, Chief Physician for Medical Imaging, and Luigi Russo, responsible for imaging information systems and project management, RHNe decided to evaluate a medical speech recognition solution in March 2018. The aim was to make employees' lives easier in a time when their administrative burden was rising. Up to that point, all documentation processes were completed via digital dictation without speech recognition. The roll-out of the Dragon Medical Direct speech recognition software increased productivity with regard to documentation and greatly increased the quality of the reports. As a result, this significantly reduced the amount of time spent on documentation by secretaries within the Radiology department.

The facts

Customer

Neuchâtel Hospital Group (RHNe)
www.rhne.ch

Aim

To improve medical documentation processes throughout the hospital network

Solution

Dragon Medical Direct speech recognition

Voicepoint Checkpoint

Voicepoint Neon

Voicepoint Dragon Medical Analytics

Voicepoint Spark for Radiology

Philips SpeechMike Premium 3500 dictaphone

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Dr. Emilie Nicodème-Paulin
Chief Physician, Medical Imaging

In addition to medical documentation, speech recognition is used to prepare administrative documents, including reports and emails. The solution allows physicians to dictate directly in various applications. They can also choose to use speech recognition in isolation or in parallel with the digital dictation workflow system Winscribe, which has been in use for some time at RHNe. A key aim is to reduce the burden on the secretaries, so they can turn their full attention to patient care. This is why it was important for RHNe to find a high-performing medical speech recognition solution that would work with various applications. In June 2018, a trial involving the server-based speech recognition solution Dragon Medical Direct (DMD) was conducted within the Medical Imaging, Radiology and Nuclear Medicine departments at the hospital group's sites in Neuchâtel and La Chaux-de-Fonds.

Successful introduction and integration

Following the success of the trial – which was conducted under Voicepoint's supervision – 30 physicians received access to Dragon Medical Direct, with specific Voicepoint vocabulary for the field of radiology. It did not take long for these physicians to start saving a great deal of time on documentation. Alongside reports, Dragon Medical Direct can be used to prepare emails without having to write them out using a keyboard. The personal user training sessions based on specific use cases are especially beneficial for making sure the solution is implemented properly. Direct dictation into the radiology information system (RIS) generates texts in real time for radiologists. Various elements designed to increase efficiency – including making immediate corrections, filling in specific phrases and creating text blocks – were demonstrated during the training. The physicians use the professional Philips SpeechMike Premium 3500 dictaphone for input purposes. This dictaphone is optimally designed for speech recognition and contributes significantly to the high degree of recognition. The configurable key combinations on the SpeechMike Premium dictaphone along with individual speech commands also increase the level of productivity and user friendliness.

Dragon Medical Direct has dramatically improved the day-to-day documentation of the radiologists and made the processes much shorter. Before, it could have taken several days from the patient being examined to the documentation being completed. The new speech recognition solution enables these reports to be prepared within just a few hours (as a rule). “Our team of 20 employees quickly saw how beneficial speech recognition could be. It is fantastic that we can use Dragon Medical Direct to process over 95% of our medical documentation so quickly and easily. The new documentation process is of huge benefit to everyone in the team,” states Dr. Emilie Nicodème-Paulin.

The department's secretaries quickly identified the added value of Dragon Medical Direct as well: “We are delighted about our new solution. The time we've gained from using it can now be spent on patient care. That's very motivating for everyone,” states Ms Clémentine Biehlmann, Secretariat Coordinator for Medical Imaging.

The figures speak for themselves

The Dragon Medical Direct speech recognition solution met the goals it set out to achieve with regard to improving productivity and user friendliness across all levels. “We are especially impressed by the amount of time it saves, the comparative lack of learning curves and the ability to use the solution directly in various systems. We have become much more efficient thanks to Dragon Medical Direct. The time required to prepare a report has fallen by 40%, while the time until dispatch has been reduced by 30%. The solution is now used on a daily basis. Around 100 hours of dictation and 400,000 lines of text are generated through speech recognition,” explains Luigi Russo. Due to the success of the project and the excellent experience with Dragon Medical Direct, the decision was made to introduce the solution in other departments of RHNe over the course of 2021.



Dr. Emilie Nicodème-Paulin and Luigi Russo