

## CASE STUDY

# Optimised medical documentation thanks to speech recognition

Voicepoint is helping Valais Hospital improve its documentation processes thanks to a medical speech recognition solution based on artificial intelligence.

Valais Hospital is the benchmark hospital for health care in Valais, Switzerland. It serves the entire population of Valais as well as guests visiting the canton, providing a range of quality inpatient and outpatient treatments and services pertaining to public health care and prevention. It is also used in research and learning within the numerous professions represented in the hospital. A workforce of around 5,4000 personnel is divided between the Upper Valais Hospital Centre (SZ), the Hospital Centre for French-speaking Valais (CHVR) and the hospitals' central institute.

### Initial situation and project aim

Valais Hospital has already been using Voicepoint's digital dictation management platform Winscribe for years. After a request was issued by the medical fraternity, the executive board of the two centres made the decision in October 2018 to launch a project to evaluate and introduce a high-performance speech recognition solution throughout the hospital. Up to that point, some physicians had been using the client-based speech recognition software Dragon Medical Practice Edition (DMPE). Following the executive board's decision, the focus was on finding a server-based, multilingual product that streamlined the medical documentation process and reduced the burden on the hospital administration and medical staff. The system to be procured had to support a wide range of application scenarios and enable physicians to focus on their patients at all times.

## The facts

### Customer

Valais Hospital  
[www.hopitalduvalais.ch](http://www.hopitalduvalais.ch)

### Aim

Process optimisation and time savings when creating medical documentation

### Solution

Winscribe Dictation Software  
Dragon Medical Direct speech recognition  
Voicepoint Checkpoint  
Voicepoint Neon  
Voicepoint Spark  
Philips Digital Pocket Memo 8000 dictation devices  
Philips SpeechMike Premium 3500/3700 dictaphones

“The solution is highly intuitive and user friendly. In addition to medical documentation, I can complete my correspondence and emails using speech recognition – even if I’m at home.”

**Dr. Christophe Constantin**

Head of Diagnostic and Interventional Imaging, CHVR



A trial phase was held using the Dragon Medical Direct (DMD) speech recognition software suite. This phase was organised and implemented by IT project manager Rodolphe Naoux, CHVR project manager Etienne Verniquet and several Voicepoint experts. The solution was tested by German and French-speaking users from multiple departments at various sites. “We expect a speech recognition solution used throughout the hospital to save a great deal of time and optimise processes, with the aim of making it much quicker to compile discharge reports. In the field of radiology, for example, a report can now be delivered within 24 hours at the maximum, which has greatly increased our efficiency,” states Etienne Verniquet, CHVR project manager. Rodolphe Naoux and Etienne Verniquet

me a lot of time and is highly precise. I have created numerous text blocks with variables and added my profile. I simply insert these templates in the right place in the RIS using voice commands, which saves me a great deal of time. Our assistant physicians also benefit from this, as they receive valuable support for their findings in the form of structured, standardised text blocks. The solution is highly intuitive and user friendly. In addition to medical documentation, I can complete my correspondence and emails using speech recognition – even if I’m at home,” explains Dr. Christophe Constantin, Head of Diagnostic and Interventional Imaging at CHVR.

Dragon Medical Direct also offers a host of useful features, including the option to integrate customer-specific vocabulary at department level and to adapt to specific terminology that can, if desired, be integrated for the hospital as a whole.

Finally, the suite features additional modules designed to improve productivity. Voicepoint Checkpoint enables all users’ master data to be synchronised with Active Directory, while Voicepoint Neon reduces the amount of admin time required for the SpeechMike Premium 3500/3700 dictaphone, which is used throughout the hospital. These top-quality Philips input devices were developed especially for speech recognition purposes and have configurable keys that can be used to automate various process steps in the clinic information or text processing system.



**Introduction of solution**

After the test phase achieved its stated aims, the decision was made at Valais Hospital in October 2019 to roll out Dragon Medical Direct. For the first stage of the roll out, the solution was made available in French and German to around 400 users in Radiology, Obstetrics & Gynaecology, Gastroenterology, Rehabilitation and A&E. “Thanks to the technical vocabulary in the software, this speech recognition tool has greatly improved my day-to-day work. It saves

**Result and benefits**

Thanks to Dragon Medical Direct, Valais Hospital has improved its medical documentation processes and increased its productivity. Thousands of reports are now created using speech recognition each month. The AI-based system is available in two languages, with 63% of users accessing it in French and 37% in German.

“Since we started using speech recognition, we can create reports, protocols and discharge reports much quicker than before. We wanted to significantly reduce the time it took to process documents – and we achieved our goal. In particular, I appreciate the fact that it recognises specific medical vocabulary, resulting in a high degree of recognition.”

**Dr. Stefan Schwery**

Clinic Director and Chief Physician, Internal Medicine

“Speech recognition is part of a change management programme whose aim is to make it easier to prepare and distribute clinical documents, reports and protocols. This involves the complete ecosystem surrounding patient records. The centralised Dragon Medical solution gives our physicians a high degree of flexibility, enabling them to prepare documents from any location. Through this, we are helping to support the redesign of the interface between physicians and secretaries.

This saves time for the secretaries and leaves resources free for other tasks to be completed. The medical secretaries can now offer their direct support when it comes to caring for patients,” explains Rodolphe Naoux, IT project manager.

Ms Nathalie Mathys, Head of the Central Secretariat for Medicine at CHVR, adds the following: “Close monitoring and training of medical personnel is an important step in this process. I help users take the first steps with using speech recognition based on specific practical examples, e.g. after a consultation when a physician needs to dictate details directly into the patient’s record in the clinical information system. Thanks to Dragon Medical, we can invest the valuable resources of our 21-strong central secretariat team into a host of new projects. This is a challenge that is motivating all of us.”

Upper Valais Hospital Centre (SZO) has benefited from the German version of Dragon Medical Direct in its Gastroenterology, Neurology, Rehabilitation, Outpatient and Emergency departments since 2018. “Since we started using speech recognition, we can create reports, protocols and discharge reports much quicker than before. We wanted to significantly reduce the time it took to process documents – and we achieved our goal. In particular, I appreciate the fact that it recognises specific medical vocabulary, resulting in a high degree of recognition. I now use speech recognition to process all of my clinical documentation. Generally speaking, I dictate directly after my consultation with the patient. It is fantastic to have all the information I need available. I also use speech recognition to write my emails, which saves

Nuance®  
**Dragon®  
Medical  
Direct**

Nuance®  
**Winscribe  
Dictation**



me more time – and means I can spend more time on my patients,” explains Dr. Stefan Schwery, Clinic Director and Chief Physician of Internal Medicine at SZO.

SZO has also been able to optimise the workloads of its secretaries thanks to speech recognition. “I am responsible for training users in Dragon Medical Direct. These sessions are essential for getting the most out of the software. We have been able to increase the quality of dictation noticeably. Clinical documents can now be distributed much quicker thanks to speech recognition. Around 75 employees have been able to optimise their tasks, enabling them to invest more time in improving the quality of patient care,” states Sandra Fux-Ruppen, Head of the Medical Secretariat at SZO.

Dragon Medical Direct, whose technology is based on artificial intelligence, is able to continually evolve and refine itself. As a result, this solution – which was provided to Valais Hospital by Voicepoint – always reflects the state of the art. The hospital-wide roll-out for 650 physicians will be completed by the end of 2021.