

# Harnessing the power of speech recognition at Europe's largest dental school



**Guy's and St Thomas'**  
NHS Foundation Trust

>90%

of dental clinicians use  
Dragon Medical One

1,500

patient letters  
a week created

5 days

average letter turnaround  
times reduced from  
4 weeks to 5 days

**CHALLENGE:** Guy's and St Thomas' NHS Foundation Trust's dental services required a new way of streamlining their existing process of writing letters to patients from clinical notes. It needed to overhaul an inefficient system of manual dictation to communicate information quickly and accurately.

**SOLUTION:** AI-powered speech recognition software was adopted by the majority of the organisation's 180 dental clinicians and support staff to create accurate and detailed information to relay to patients.

**RESULTS:** The average turnaround time for clinical letters went from four weeks to just five days once Dragon Medical One had been adopted and embedded across the Trust's dental department.

"Dragon Medical One has been revolutionary for our dental department. The accuracy is excellent, even when writing long letters with complex clinical text and instructions."

— Richard Manthorpe, Dental Assistant General Manager,  
Guy's and St Thomas' NHS Foundation Trust

Guy's and St Thomas' NHS Foundation Trust's dental services are ranked number one in the UK. The largest dental school in Europe and a world leader in research, as part of the King's College London Dental Institute, the Trust provides comprehensive training for both dental students and dental care professionals.

## Before speech recognition, the process was manual

Guy's and St Thomas' dental department has around 180 clinicians and support staff, and sends out hundreds of letters to patients every week. Historically, these were written by manually typing from dictations made by clinicians, a time-consuming and inefficient process. Very often, specific administration staff even had to be assigned to particular clinicians when only they could recognise exactly what they were saying.

## Embracing technology to improve efficiency and patient outcomes

This all changed when Richard Manthorpe, Dental Assistant General Manager, investigated new ways of working, and the department became an early adopter of Dragon Medical One at the Trust. This secure, cloud-based speech recognition solution allows clinicians to document the complete patient story using voice.

"We made our decision quite quickly once we saw what the capabilities of the solution were," says Richard. The software operates with 99% accuracy levels and delivers the benefits of cloud-hosted functionality.

---

“There is a lot of noise in our Trust’s dental department from drilling and people walking up and down the corridor. Even in this setting, Dragon Medical One has proved reliable and helped us to quickly improve the turnaround times of our patient letters”

— Richard Manthorpe,  
Dental Assistant General  
Manager, Guy's and St Thomas'  
NHS Foundation Trust

---

---

# 5 days

When originally inputting dictated letters, the turnaround time was four weeks. This has now been turned into five days by adopting Dragon Medical One.

---

“Dragon is reliable and efficient. The Trust’s dental hospital is set up in a U-shape, with six open-plan bays with lots of noise from dental drilling, as well as people walking up and down the corridor, meaning a lot of noise daily. Even in this setting, the solution quickly proved it was reliable and helped us to quickly improve the turnaround times of our letters to patients. There are also several clinicians who are using the mobile app which allows them to use their mobile phone as a microphone, wherever there is good WiFi connection.”

### Working with the Trust to improve dialogue with patients

With Nuance as its technology partner, a dedicated team was able to help Guy's and St Thomas' dental team with the implementation, advisory and training support of the new system and ironing out any problems with the uptake of the solution.

Richard says: “Nuance created a how-to guide and online training videos which we signpost people to, but we have also developed our own internal training to get our staff members up and running with Dragon Medical One.

“The uptake of speech recognition has allowed us to become more flexible with our workforce and helped increase the turnaround of our letters. The quality of our documentation, both internally and externally, has improved significantly.”

Clinicians are also embracing the power of the software to authorise information from consultations with patients, again further cutting down the time it takes to communicate effectively with patients. Over 90% of all staff across the Trust’s dental department are now using Dragon Medical One.

### Next steps

The dental department’s successful implementation of Dragon Medical One has helped lead the way for ‘super-users’ to support other areas of the Trust to adopt speech-recognition into their workflows.

The dental department currently uses Dragon Medical One with legacy IT systems. The Trust will soon begin using Epic’s electronic patient record (EPR) system, and their experience using Dragon Medical One previously will help create a smooth transition to a new way of working, as the software is compatible with all leading EPRs.

### LEARN MORE

To learn more about Nuance conversational AI solutions, visit [nuance.co.uk/healthcare](https://nuance.co.uk/healthcare)



---

### About Nuance Communications, Inc.

[Nuance Communications](https://www.nuance.com) is a technology pioneer with market leadership in conversational AI and ambient intelligence. A full-service partner trusted by 77 percent of U.S. hospitals and more than 75 percent of the Fortune 100 companies worldwide, Nuance creates intuitive solutions that amplify people’s ability to help others. Nuance is a Microsoft company.