



Voice Technologies is an award-winning, employee-owned software solution provider serving the UK market. It helps organisations to reduce the time and cost of producing correspondence by using information and mobile workflow, speech recognition and digital dictation applications.

*“Speech recognition in Pathology has helped tremendously to maintain our report turnaround time even with staff shortfalls”*

**Dr Kaushik Dasgupta**  
Histopathology Consultant  
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Trust

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## Case Study

# Speech Recognition Proves a Hit with Pathologists in NHS Grampian and North Tees & Hartlepool NHS Foundation Trust

## Challenge

To eliminate the bottlenecks that lead to a backlog of Pathology Departments' reports.

## Solution

Using speech recognition coupled with recording direct into the laboratory system.

## Results

- ▶ Speech recognition actively reduces the pressure on the digital dictation system, easing the workload on the secretarial pool
- ▶ Users can dictate simple and complex reports direct into the laboratory system, avoiding a build-up of dictations.
- ▶ Patient reports require less work and are turned around faster, helping to ensure patients are treated as early as possible.

## Background

NHS Grampian's Aberdeen Royal Infirmary (ARI) is the largest hospital in northern Scotland. The Pathology Department at the hospital employs 19 consultants and handles approximately 1,700 tissue blocks each week, around 600 of which require biopsies.

North Tees & Hartlepool's University Hospital of North Tees is a teaching infirmary in Stockton-on-Tees with over 560 beds. The Pathology Department employs multiple consultants across seven specialist areas.

Each Pathology Department has a pool of secretaries who manually type reports for the consultants. Backlogs built up when secretaries had to deal with a surge in the workload due to out-of-ours working or irregular shift patterns. This led to inevitable delays for patients. A solution was needed to speed up the process of turning a pathology report around in order to avoid bottlenecks during peak working hours.



## Speech recognition

Both Pathology Departments already used digital dictation systems supplied by Voice Technologies. We were invited to explain the advantages that a speech recognition system could bring to their laboratory systems. We demonstrated how speech recognition system, Dragon Medical from Nuance, would enable the Pathologists to dictate their biopsy reports directly into the laboratory system instead of forwarding their dictations to the secretarial team for transcription.

Using the system, many of the Pathologists in both hospitals moved quickly from simple biopsy reports to larger and more complex reports. This was partly due to increasing user familiarity, and partly to the improvement of the speech recognition engine as it learned from each individual user.

After a short period of time, there was a significantly positive decrease in the reporting turnaround time at both locations. Both hospitals have since added more speech recognition users.

*"On a Friday afternoon we usually have many reports waiting in the digital dictation system. Typically, it takes until the following Tuesday to catch up. That backlog has been dramatically reduced – today [Friday] we only have six.*

*"Initially we were sceptical about the accuracy of speech recognition, especially when we use so many medical terms. However there is a fairly extensive dictionary of terms built into the system. Apart from a few minor issues, which were quickly ironed out, we've found the accuracy of speech recognition to be very good."*

**Lynne Doerty, Senior Chief Biomedical Scientist, Aberdeen Royal Infirmary**



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