

## ▶ CASE STUDY: SpeechQ for Radiology

### Northeast Missouri Imaging Associates (NMIA) Based in Hannibal, Missouri

- Servicing four hospitals and one outpatient facility
- Staff of seven full-time radiologists

#### The Situation

- Turnaround time was 24-36 hours for radiology reports.
- Reports were sometimes lost, necessitating re-dictation.

#### The Solution

- Partner with MedQuist to use its SpeechQ for Radiology speech recognition reporting application.

#### The Result

- NMIA decreased its reporting time to as little as 16 minutes.
- Final reports completed while the patient is still in the office.

#### The Benefits

- Increased NMIA's satisfaction ratings from patients and the medical community.
- Alleviated problem of lost reports.
- Provided remote capabilities to radiologists.

## Missouri Radiology Practice Dramatically Reduces Report Turnaround Times with SpeechQ for Radiology

Northeast Missouri Imaging Associates (NMIA), based in Hannibal, Mo., is a radiology group servicing four hospitals and one outpatient facility with a staff of seven full-time radiologists. In 2005, NMIA conducted a survey of its referring physicians, to identify any problems and learn how it could improve its customer service and satisfaction.

### Turnaround Time Impacts Customer Satisfaction

The survey revealed that the overwhelming issue the referring physicians had regarding radiology reports was turnaround time (TAT). NMIA was averaging 24-36 hours to return a completed report, and the physicians wanted to see the results faster. According to Brandon Selle, MBA, Practice Administrator for NMIA, "There were too many inefficiencies in our dictation process. Much of the delay was not the time it took our radiologists to look at the film and dictate it, but the time it took going through the system, to and from the transcriptionist."

NMIA recognized that this was not an issue the radiology practice could fix all by itself. To take control of the problem and shorten the multi-step dictation and transcription process, NMIA began looking into options including speech recognition.

### Radiologists Take Control with SpeechQ

NMIA ultimately selected SpeechQ for Radiology™ speech recognition technology from MedQuist to allow its radiologists to self-edit their dictation. SpeechQ for Radiology has been rated number one for front-end speech recognition by customers, according to KLAS Enterprises' "Top 20: 2006 Best in KLAS Awards" Report.<sup>1</sup>

SpeechQ for Radiology is based on the Philips SpeechMagic™ engine, an embedded workflow engine that continuously adapts to speakers, and a suite of flexible workflow tools. SpeechQ for Radiology doesn't merely learn the speaker's voice, but puts it into a radiology-specific context.

According to Selle, NMIA radiologists quickly discovered that front-end speech recognition could streamline their workflow: "With SpeechQ, the doctor dictates, the text immediately appears on their screen, they edit at same time, and then the report is electronically signed and sent to the referring facility and physician. The system integrates with the RIS from the hospital, which automatically populates the patient demographics and order information, so the radiologist doesn't have to dictate the Medical

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**Brandon Selle, MBA,  
Practice Administrator, NMIA**

Record Number or exam information. All they're doing is dictating their report."

Over the past year, NMIA has been rolling out SpeechQ to each of the facilities it serves, starting with the outpatient center. Selle states, "Our radiologists were easily trained on the application. It is very easy to add macros and templates so that the radiologists can create all or part of their reports with a simple voice command."

According to NMIA IT Director John Ryan Bareis, "The key to our success was getting the physicians to come into it with an open mind. MedQuist personnel were on-site for the first week of SpeechQ training. After about a week, the radiologists had gotten the bulk of it down. Later, MedQuist came in with their trainers again and assisted us in fine-tuning the system."

### **Impressive Results in TAT and Reduced Lost Reports**

Now, the NMIA radiologists can dictate, self-edit, finalize and sign a report all in one sitting; with autorouting, it can be returned to the ordering hospital, physician, clinic or ER in as little as **16 minutes!** "Essentially, it's only one step now. They dictate the report and it's finalized on the spot. With that turnaround time, we can get the reports out to the physicians while the patient is still in the office. SpeechQ for Radiology has really helped us to increase our satisfaction ratings from the medical community and our patients," says Selle.

Another problem that has been alleviated is lost reports. Bareis notes, "Everyone has had an experience where the radiologist dictates into the microphone and docks it, and two days later, the facility calls and says, 'Have you dictated any reports? Because we haven't gotten anything!' So by completely eliminating all those steps that created the long turnarounds, we've been able to ensure that as soon as the radiologist can get to the image, it's done."

The NMIA radiologists are also able to use the SpeechQ application at home, and from multiple facilities, so they can be reading images for a facility even when they are not there. Bareis observes, "About a third of our reports are remote, and it's the same setup as if they were physically located in the radiology department."

Concludes Selle, "Radiologists shouldn't be scared off by previous experiences with other, older or less sophisticated speech recognition applications. Not all systems are created equal."



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