



PowerScribe®

Sarasota Memorial Uses Dictaphone Speech Recognition To Reduce Costs and Radiologist Dictation Time While Delivering Faster Paperless Records To Physicians.

For Sarasota Memorial Healthcare System (SMHCS) bringing Speech Recognition to their progressive Radiology Department was not just about doing things faster or even in a less costly manner. Their ultimate goal was to take that final needed step to provide physicians and staff with access to diagnostic information in an easily accessible paperless format. Today, they have achieved that goal with the help of Dictaphone's PowerScribe® Speech Recognition.

"We saw Speech Recognition technology as the final component that allowed us to provide easier and more immediate access to diagnostic information," said Dr. Richard J. Lichtenstein, Department Chair Radiology.

Fulfilling the Goal of the Paperless Medical Record

Sarasota Memorial Healthcare System (SMHCS), a 828-bed regional medical center, is the second-largest acute care public hospital in Florida, with about 3,000 staff members and more than 1,000 volunteers. The SMHCS Radiology Department is staffed 24-hours a day, and the team of 14 Radiologists interprets 230,000 exams a year. The department was one of the first organizations in the country to use "Digital Imaging Technology" to provide care for its patients and, shortly after, implemented an enterprise-wide Electronic Medical Record System.

"The availability of a digital image offered referring physicians limited value if a written interpretation did not accompany it, and before PowerScribe, it took our Radiology Department 24-36 hours to make a completed report available to them," Dr. Lichtenstein said. "The result was that doctors often ordered STAT reports in an attempt to get the report faster, and even then, pre-Speech Recognition STAT reports were averaging over 4 hours to complete."

Highlights

- Large, 828-bed regional medical center.
- 14 Radiologists use PowerScribe Speech Recognition to dictate 230,000 exams a year.
- Emergency room report turnaround reduced from 287 minutes to 22 minutes; non-urgent cases to under 8 hours from 24-36 hours.
- Eliminated \$300,000 in annual outside transcription costs.
- The system will pay for itself in one year.



L. Kirk Conrad, M.D., Neurointerventional Program

Today at Sarasota Memorial the situation is quite different since implementing Dictaphone PowerScribe Speech Recognition within Radiology. Average time for report completion for emergency cases is down to between 22-27 minutes from 287 minutes. For non-urgent cases, turnaround is now under 8 hours, down from 24-36 hours. This is even more impressive, when considering that using PowerScribe, reports are all dictated and electronically signed and posted to the EMR, while in the previous model Radiologists would still need to re-access the transcribed reports for review and signature, requiring additional time and effort.

Faster, Less Costly Documentation

The department formerly employed a combination of transcription outsourcing in conjunction with 5 in-house transcriptionists. Today, PowerScribe Speech Recognition has completely eliminated the need for transcription outsourcing of Radiologists' dictation, which has resulted in a \$300,000 annual cost savings. "The PowerScribe system has paid for itself in under 13 months of operation, while delivering priceless benefits in terms of faster access to clinical information, better care, and significantly enhanced service to physicians," Dr. Lichtenstein indicated.

The browser-based PowerScribe Workstation puts radiologists in complete control of the reporting process, letting them dictate using a hand-held microphone. The process is simple

in that they can review recognized text on screen, edit, and electronically sign the report in succession.

L. Kirk Conrad, MD, who leads the Neurointerventional Program at Sarasota Memorial (one of only an estimated 140 physicians in the U.S with this specialty), is a strong advocate of Speech Recognition. "With Speech Recognition, I can look at dictation immediately, make changes, and send it off knowing it is the way I want it," Conrad said.

Dr. Conrad also indicated that the old process was time-consuming and inefficient to have to go back, review, and approve reports that were often days old. "If I needed to change something in the report, I'd have to get films re-archived, and re-read the films. Now I can do it once, and it's done. Physicians and patients now both benefit from much faster availability of the completed report, and the Radiology Department gets significantly fewer calls from doctors. In the past we would have to call the physician with preliminary results, and then, still need to provide a final report of findings," Conrad indicated.

Templates & Normals Simplify Radiologist Dictation

Dr. Conrad indicated that, "in addition to free-form dictation, we have the ability to create and invoke 'normal reports' and 'templates' which make dictation much easier. I don't have to remember and add the sequences that we perform; it's all there for me. For many studies, all I have to do is dictate the impression specific to that case. It's a big time saver. In very lengthy studies I also find it beneficial to be able to go back and review the text of what I have just dictated before making my final impression."

With PowerScribe, users can save recognized text on the fly as a standard text block via a simple "drag and drop" procedure. Standard text is invoked through voice commands, while form fill-in capabilities are easily activated through simple microphone button commands and voice input. The combination of free-form Speech Recognition and the added flexibility of stan-

“The primary concern among Radiologists was that Speech Recognition was going to slow them down, so from the beginning we worked with Dictaphone to assure that this potential concern was resolved.”

andard text ‘shortcuts’ and ‘templates’ results in a significant reduction in radiologist dictation time.

Dr. Lichtenstein, who served as the “physician champion” for the program implementation, indicated that radiologists have been able to reduce dictation time significantly. “Report ‘templates’ and ‘shortcuts’ have improved productivity and helped to simplify the dictation process for many types of reports,” he feels. In addition to ‘templates’, many Radiologists have created personal ‘standard reports’—some individuals having more than 100 that they have created on their own.” “Now, a Bone Mineral Density study—a beautiful multiple page report, complete with charts and graphs—can be completed in a matter of minutes, with the Radiologist needing to only dictate the individual values and sites of the bone mineral density and an interpretation. For an ED case, a normal chest, as an example, can take as little as fifteen-to-twenty seconds to complete,” Dr. Lichtenstein said.

Easy To Learn... Easy To Use

John Koch, Radiology Systems Administrator, played a vital role in system implementation, working with the Dictaphone Consulting Group in assuring accelerated Radiologist learning and acceptance. “The primary concern among Radiologists was that Speech Recognition was going to slow them down, so from the beginning we worked with Dictaphone to

Challenge: Slow radiology reporting and high costs were providing less than adequate service and responsiveness to physicians and patients, and not fulfilling the potential of a paperless imaging environment.

Strategy: Implement Dictaphone's PowerScribe for Radiology Speech Recognition solution, integrated with the facility's PACS and Electronic Medical Record (EMR) systems, allowing physicians to view radiology reports and images digitally via the Internet.

Results: \$300,000 annual transcription cost savings, reduced radiologist dictation time, and reduction in report turnaround from hours and days to a matter of minutes.

assure that this potential concern was resolved.” Koch indicated that, “we set up one-hour blocks with a trainer from Dictaphone's Professional Services Organization with each of our Radiologists, to help them configure the system to each individual's personal uses and to assist them in creating ‘normals’ and other shortcuts. But an hour seemed to be too much, as Radiologists picked it up very quickly.”

Fully Integrated For Tangible Results

SMHCS shares with many Radiology departments a desire to unite the benefits and workflow of Speech Recognition with their clinical information systems.

From a technical perspective, the PowerScribe system is fully integrated with the facility's EMR and RIS. “Orders are entered via our Eclipsys Care Vision® EMR system, and then once an exam is completed in our RIS, a demographic message is sent to the PowerScribe system. Once the radiologist begins the dictation session, PowerScribe automatically populates all demographics into the report including prior history, etc., and the Radiologist can dictate and view images all on the PACS screen. Once the report is complete and electronically signed, it's uploaded to our EMR via an HL-7 interface. The entire process from availability of the image, to the completed report reaching our EMR, including Radiologist dictation time, can take fewer than 20 minutes”, Koch said.

Dictaphone has integrated its Speech Recognition software with over 30 different RIS and PACS systems in the market

The results have been dramatic for Sarasota Memorial Healthcare System's Radiology Department. They have reduced operating costs, helped make Radiologists more productive, and have achieved their goal of bringing diagnostic information to physicians and patients faster and more efficiently. "We are very much in a service business, and by providing better service, are helping to attract physicians to our facility," Koch said. "The Hospital Staff has noted such a positive improvement in report turnaround that they actually presented the Radiology Department with a special award for outstanding achievement".



John Koch, Radiology Systems Administrator

Sarasota Memorial's Web Site Tells The Story

The following statements, taken from Sarasota Memorial Healthcare System's Web site to area physicians and patients, well summarizes the results achieved with the help of Dictaphone's PowerScribe Speech Recognition system:

"With Speech Recognition, I can look at dictation immediately, make changes, and send it off knowing it is the way I want it."

The most recent enhancement to round out the concept of completing the patient encounter in a more timely manner is the Radiologist voice recognition dictation system. With this system turnaround times for the results of your Radiology exams have been drastically reduced. The Radiologist now dictates their findings and at the click of a button, can see instantly what they have dictated in document form. If needed they can edit and then sign the report releasing it for immediate distribution.

Sarasota Memorial Hospital Radiology Services now offers easy access to digital images from the hospital to the physicians' offices, as well as their homes. This new technology allows physicians to view their patients' radiology procedures digitally via the Internet in their office upon completion of the procedure. Physicians can also view the images from their homes to determine course of treatment prior to leaving for the hospital, saving valuable time on immediate treatment needs. This service also allows physicians while with their patients to view the exams they had performed at all of Sarasota Memorial's out-patient as well as inpatient facilities.

For product information please visit Dictaphone Healthcare Solutions at www.nuance.com/dictaphone or call 888-350-4836.

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“The future of radiology reporting will be the ability to rapidly deliver both the completed report with the PACS image to physicians in a paperless form. The combination of Speech Recognition with Digital Imaging now makes this possible.”

— Richard J. Lichtenstein, Department Chair Radiology

The experience speaks for itself™