



PowerScribe®

Emory Healthcare Uses Dictaphone PowerScribe® Speech Recognition to Reduce Transcription Costs, Decrease Report Turnaround Time, and Establish an Efficient Resident Documentation Workflow

A leading academic entity which continually strives for excellence, Emory Healthcare, Atlanta, GA, currently uses Dictaphone PowerScribe® Speech Recognition from Nuance. One hundred and seventy radiologists at Emory University Hospital, rated one of “America’s Best Hospitals”, are self-editing reports, along with ten additional radiologists at Emory Crawford Long Hospital. PowerScribe has eliminated \$400,000 in annual transcription labor costs at Emory, and has also decreased report turnaround time from upwards of 72 hours to less than 12. In addition, PowerScribe has helped establish a strong and efficient resident documentation workflow.

Due to Rising Transcription Costs, Emory Healthcare Explores Speech Recognition

With a rising volume of over 200,000 radiology exam reports per year, Emory University Hospital was hard pressed to find a way to improve document production efficiency while reducing transcription costs. Emory was spending \$400,000 dollars annually on transcription prior to implementing PowerScribe, which was unacceptable to management. “Our radiology department explored PowerScribe because they really wanted to bring down transcription costs and eliminate the need for so many transcriptionists,” said Dena Wheeler, PowerScribe Administrator.

On-boarding Process

Wheeler explains the ease with which new physicians are acclimated to PowerScribe: “It only takes about two or three hours for physicians to learn the PowerScribe system.” Upon training a new physician, “I explain all of the benefits of the system and how to use it correctly; if they do use the system correctly, their benefits are going to be great.” After 60 minutes of live dictation is captured by PowerScribe, an individual’s voice model is honed by the speech recognition engine. Constant slight adjustments are made to an

Highlights

- 170 Radiologists currently using speech recognition in self-edit mode
- Report turnaround time reduced from upwards of 72 hours to less than 12
- PowerScribe has facilitated implementation of a strong and efficient resident workflow
- \$400,000 spent on transcription labor annually prior to PowerScribe implementation has been virtually eliminated
- Speech recognition accuracy is currently over 90%-plus for each physician



Dena Wheeler, PowerScribe Administrator

individual's voice model, so recognition becomes extremely accurate within a short amount of time. In Wheeler's experience it usually takes less than 3 weeks for recognition accuracy to reach its prime. "Our physicians are getting over 90% recognition accuracy; the high end is over 95%," said Wheeler.

Reduction in Report Turnaround Time

Prior to implementing PowerScribe, Emory Healthcare was experiencing the same issue that plagues so many health-care organizations — slow report turnaround time. Radiology reports were taking upwards of 72 hours to be transcribed and then returned to the physicians for signature. With PowerScribe, every radiologist at Emory University Hospital is now completing his or her own reports, removing the transcription step. One hundred percent of radiologists in this self-edit mode may be attributed to the fact that PowerScribe offers a simple dictation process in that physicians can review recognized text on screen, edit, and electronically sign the report in succession.

PowerScribe is a browser based system so therefore can be utilized at any PC with applicable software and internet access. A hand-held PC-based microphone allows for voice navigation and voice correction within a report, and even has a built-in mouse which enables a physician to create a report without ever touching a keyboard or standalone mouse. At Emory, Dena Wheeler explains that "Most physicians edit documents by using their voice." This process facilitates a turnaround time

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of less than 12 hours at Emory University Hospital for resident workflow, and even less for attending radiologists who are producing their own reports.

PowerScribe offers an extremely efficient workflow for a teaching hospital, in that residents are able to dictate their own reports, edit and then send to attending physicians for review and signature. "A resident can dictate a study, and the attending can voice edit over the resident's dictation," explained Wheeler, which proves to be an extremely rapid process. The attending can then sign the report to complete the process. Once a report is electronically signed by a physician, the RIS system ensures that copies of the document will be immediately routed to the proper, pre-specified, locations automatically.

Efficient Report Production Tools

PowerScribe offers a number of catalysts to efficient report production including "shortcuts", "power normals", "templates", and "tokens", which are used to create recurring reports in which physicians often dictate the same or similar findings with slight variations. "If a physician is dictating a normal report, the report creation is nearly instantaneous," stated Wheeler. Standard text is invoked through voice commands, while form fill-in capabilities are easily activated through simple microphone button or voice commands. Users can save recognized text on the fly as a standard text block via a simple "drag and drop" procedure and then recall this text to create subsequent

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reports. “The physicians really have embraced using the templates because templates have shortened their dictation time dramatically,” said Wheeler. “Physicians fill in the bracket blanks so they don’t have to dictate all of the verbiage that goes along with the report,” Wheeler explained.

Another efficient functionality of PowerScribe involves flexible workflow options. In addition to the workflow discussed above, PowerScribe offers the capability to dictate as well as edit and sign reports in “batch” mode if physicians desire. Dena Wheeler indicates that radiologists at Emory tend to prefer batch mode as they dictate, for example, five reports, then edit and sign all five sequentially.

Transcription Savings

Emory Healthcare has not only seen dramatic reductions in report turnaround times, but has also attained notable transcription labor savings. Prior to implementation of PowerScribe, a team of 11 transcriptionists at Emory were struggling to keep up with an increasing volume of radiology reports. Eleven transcriptionists have now been reduced to one, and \$400,000 of annual transcription labor fees has been eliminated. Emory plans to continue to encourage physicians to adopt PowerScribe in order to continue to save money on transcription.

Rapid Report Delivery to Referring Physicians

Yet another benefit of PowerScribe is the rapid report delivery to referring physicians. “As soon as the report goes from

Organization: Emory Healthcare is a renowned teaching system comprised of multiple facilities including Emory University Hospital, Emory Crawford Long Hospital, and the Emory Clinic. Emory Healthcare is “passionately committed to providing the highest quality patient care, innovative research, medical education and health information.”

Challenge: How to manage growing transcription expenses and volumes, while reducing radiology report turnaround time.

Strategy: Implement Dictaphone PowerScribe® Speech Recognition system and encourage physicians to adopt self-edit mode.

Results: Transcription labor cost of \$400,000 annually has been eliminated. Radiology report turnaround time has decreased from upwards of 72 hours to 12 hours. Efficient resident documentation workflow has been established.

PowerScribe back to our RIS, the report is automatically faxed to referring physicians from the RIS and also automatically loaded onto the EMR system where it can be viewed,” explained Wheeler. The ability of a referring physician to have a report in-hand during a patient visit can certainly increase quality of patient care. Emory has interfaced PowerScribe with its IDX RIS. Emory’s radiologists also utilize a PACS from Siemens.

Future Plans

Emory Healthcare has been so pleased with the results attained thus far with PowerScribe that they plan to add 18 cardiology and vascular physicians at Crawford Long Hospital to the Speech Recognition system. Through its partnership with Dictaphone, Emory Healthcare will continue to uphold its commitment to be at the forefront of medical technology by growing its speech recognition initiative. Emory plans to upgrade to the latest PowerScribe technology, further enhancing documentation efficiency.

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

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