



SPEECH STRATEGY NEWS

SPEECH TECHNOLOGY IN BUSINESS AND COMMUNICATIONS

August 2009

Hospitals Use Different Versions of Nuance Medical Speech Recognition

Nuance Dragon Medical and eScription

In the fiscal quarter ended May 31, non-GAAP revenues for the healthcare and dictation solutions from **Nuance Communications** were \$105.2 million, up 32% from the same quarter last year, representing 44% of the company's quarterly revenues. The company has a wide range of options for creating medical reports by voice (including medical transcriptionists/editors). Two recent announcements involving the **University of California San Diego Medical Center** and **Seattle Children's Hospital** illustrate the effectiveness of two of those options.

The potential market supporting Electronic Health Records (EHRs) is largely untapped. John Shagoury, president, Nuance Healthcare, said, "While EHRs are at the forefront of the healthcare information technology agenda, adoption is lagging with less than two percent of U.S. hospitals having fully switched to EHRs."

University of California San Diego Medical Center

Dragon Medical software is Nuance's Dragon NaturallySpeaking software adapted for medical vocabularies. The version used by UCSD Medical Center is used directly by doctors to create reports for the Center's **Epic** EHR system. No transcriptionists are involved, so the solution is particularly effective in both saving money and having the report available quickly. This "front-end" dictation allows doctors to review the report while the patient encounter is fresh or the x-ray or other image is in front of them.

UCSD Medical Center has been utilizing Dragon Medical for three years. Today, approximately 170 physicians are utilizing Nuance's speech recognition technology, and more are in the process of being trained to use the software. Last year, UCSD Medical Center was among the nation's "Most Wired" hospitals for the third consecutive year, according to *Hospitals & Health Networks*. "Speech recognition has become an important component of our EHR implementation, allowing doctors to accurately capture the patient encounter information," said Ed Babakanian, CIO, UCSD Medical Center. Dragon Medical 10 software supports more than 75 medical disciplines, from family medicine and internal medicine to orthopedics and cardiology with discipline-specific medical speech recognition vocabularies.

Nuance cites more than 100,000 physicians now using Dragon Medical to dictate patient information into EHRs. As the US Health and Human Services Department works to define “meaningful use” of an EHR, hospitals should be concerned with making the systems usable by medical personnel, and typing and navigation between data fields is likely to meet resistance. Nuance states that speech-supported EHRs have been proven to make clinicians up to 25% more efficient than those using non-speech enabled EHRs. According to a Nuance survey completed by 1,255 physicians who have adopted Dragon Medical, 69% said it made their EHR faster and easier to use, 83% said that it improved the quality of their electronic patient notes, and 81% said that it significantly reduced transcription spending.

Seattle Children’s Hospital

In an article in *Health Information Executives*, Paula Dascher (manager of transcription services and HIM technology), Cindy Lewis (Transcription Services Supervisor), and Drex DeFord (senior vice president and CIO), all of Seattle Children's Hospital, reported on their experience adopting Nuance’s eScription speech recognition technology for medical reporting. The authors noted that the cost of creating medical records using medical transcriptionists impeded efforts to expand the creation of electronic medical records. The authors noted that Nuance’s solution created formatted medical reports effectively while reducing transcription costs.

The solution used was “back-end” speech recognition for general reports and pathology reports, where the dictation was processed by speech recognition and then reviewed and edited by medical transcriptionists. (The Radiology Department used front-end transcription, and the radiologists reviewed their own reports.) Dascher, Lewis, and DeFord noted that the speech recognition engine continuously learns from corrections.

The article summarized the results:

- Eighty percent of dictation is processed by speech recognition.
- Chronic overtime in transcription has been eliminated.
- Outsourcing has dropped from over 30% to 10%.

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- Transcription productivity has increased 61%.
- Reports are available much faster and “with outstanding accuracy.”

Nuance’s eScription is an on-demand computer-aided medical transcription solution. Intelligent speech recognition software turns clinician dictations into formatted draft documents that medical transcriptionists quickly review and edit—typically doubling productivity as compared to traditional transcription.