



eScription

Beth Israel Deaconess Medical Center uses eScription Software to Keep Pace with the Challenges of Paperless Medical Records

Beth Israel Deaconess Medical Center (BIDMC) of Boston, MA is a large healthcare institution and teaching affiliate of Harvard Medical School, serving nearly a quarter million patients each year. According to CIO Dr. John Halamka, “Beth Israel Deaconess Medical Center is committed to paperless medical records and is one of the most wired hospitals in the country, yet only 40% of all clinical information is recorded electronically. Inpatient notes are still handwritten, over 400 paper forms are used in the process of care, and many documents appear only in the paper chart.”

Three of the hospital’s divisions—its primary care center Healthcare Associates (HCA), its Specialty Clinics, and its Radiology Department—experienced several problem areas with manual transcription workflows, including high costs of medical transcription services, slow and inconsistent turnaround times (often four to six days), and unreliable report distribution and printing.

Transition to Paperless Records Made Possible with Speech Recognition

BIDMC selected the eScription solution in 2002. Dr. Halamka noted, “One of the greatest challenges is capturing text information in electronic form. Dictation is highly effective because clinicians can dictate anywhere, at anytime, using a multitude of devices.”

The technology at the heart of the eScription platform is called computer aided medical transcription (CAMT), an approach proven to improve the productivity of medical transcriptionists (MTs) and thereby deliver significant cost savings to the healthcare organization. With CAMT, powerful background speech recognition technology converts the spoken word to written text from models developed solely from the medical transcription environment, and employs contextual information to create high quality first

Highlights

- The organization achieved cost savings of over \$5 million
- Transcription productivity doubled, and in some cases tripled
- Clinicians follow the same dictation workflow, without training or interruption
- Turnaround time significantly cut, from days to a matter of hours
- The number of MTSO vendors reduced to three



drafts. The software interprets and formats dictations in order to transcribe what a clinician intends to be in a document and not necessarily what he or she has said. For instance, when a clinician dictates “HPI,” he or she will likely mean “History of Present Illness.” The formatted documents are produced in the style set up and approved by each healthcare organization.

The eScription client software makes the editing process as fast and efficient as possible with features such as shortcut keystrokes and audio speed controls. The MTs’ edits deliver important, automatic feedback that continuously enhances the speech recognition engine, enabling it to provide increasingly better drafts over time. A single administrative console helps supervisors manage the complete clinical documentation process.

Millions of Lines, Millions of Dollars Saved

Today at BIDMC, more than 26 million lines of transcription per year are produced using the eScription solution. 95% of the dictation volume is currently going through the speech recognizer to produce first drafts for editing. Transcription productivity has doubled and, in some cases, tripled. BIDMC has saved over \$5 million in transcription costs since implementing the eScription solution.

Positive Experience for Clinicians

Dictations from more than 1,300 clinicians have been processed through the system. Moreover, no clinician training

was required, and clinicians had minimal change to their workflows when the new system was installed. The turnaround time on reports has been significantly reduced. Primary care center reports previously took five days; they now take 12 hours, a 90% reduction in time. Radiology reports are delivered within 30 minutes. “Our clinicians are very satisfied with the turnaround time and impressed that their dictation/transcription workflow did not need to change,” stated Sheila Linehan, IT Application Analyst and Project Lead.

Streamlined Management of Transcription Process

Prior to switching to eScription CAMT, Transcription Managers at BIDMC spent a great deal of time managing multiple transcription resources. With the eScription solution, BIDMC was able to streamline this process. According to Linehan, “We found that standardizing our outsourced transcription to two vendors through competitive bidding would lower our costs, while helping us better monitor the transcription companies.” An in-house Radiology MT group remained in place.

“Not only has our organization avoided millions of dollars in transcription costs, but we have reduced turnaround time by 90%....”

—Dr. John Halamka
CIO

Integration with Electronic Medical Records Infrastructure

Report distribution had become an unreliable process for the groups at BIDMC. Through the use of the eScription solution, report distribution is now seamless through integration with a Radiology Information System report writer, and an existing Online Medical Record in the specialty clinics. Halamka remarked, “eScription delivers a cost effective, technologically sound product. It reduced our transcription costs and was easy to rollout and integrate into our existing IT and medical records infrastructure.”

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The BIDMC implementation followed a successful process, which helped drive the excellent results the organization continues to achieve. In collaboration with an eScripton installation team, an IT project team at BIDMC handled responsibilities of Project Management, System Management, and User Support, and worked closely with the medical records staff.

Consistent Formatting Simplifies Data Extraction from Transcribed Reports

At BIDMC, intelligent speech recognition produces drafts according to the organization’s formatting standards. For instance, patients’ last names are removed using *Mr.??* instead of *Mr. Smith* for privacy reasons. In addition to increasing productivity, consistent formatting greatly simplifies searching for information and extracting data from transcribed reports, such as with natural language processing (NLP). Since the change to the eScripton platform, consistency has improved in both the headings and the body of documents produced through speech recognition.

Million Dollar Success

Each year, the eScripton Million Dollar Savings Award is presented to healthcare provider organizations that

Challenge: With the growth of the electronic medical record, Beth Israel Deaconess Medical Center sought a speech recognition system that would reduce costs, accelerate turnaround times, and provide reliable report distribution and reporting.

Solution: BIDMC executives elected to implement the eScripton on-demand platform for computer aided medical transcription (CAMT), a solution based on the premise that it’s faster to edit than to type. Rather than following a traditional transcription process, powerful background speech recognition software turns clinicians’ dictations into accurate, fully formatted draft documents that MTs quickly review and edit, often doubling productivity.

Results: Since launching the eScripton platform, BIDMC has saved over \$5 million in transcription costs, drastically reduced turnaround time, and streamlined its transcription management process—all while integrating with its EMR.

demonstrate savings of at least one million dollars or that reach a new level of million dollar savings using its on-demand CAMT solution. In 2008, BIDMC was recognized for saving \$5 million.

According to CIO Halamka, “eScripton has provided a strategically important solution for electronic medical records systems. Not only has our organization avoided millions of dollars in transcription costs, but we have reduced turnaround time by 90%, improved document distribution through integration with our Online Medical Record, and increased the consistency of our documents, which will support the continued move toward electronic patient information.”

For product information please visit Nuance Healthcare at www.nuance.com/healthcare or call 888-350-4836.

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