Transcription and Data Capture in the EHR

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Transcription has always played an important role in HIM, but today it is taking on a new role in supporting the meaningful use program. Organizations are looking to leverage their transcription technology to capture structured data within their electronic health records (EHRs), a requirement of certain meaningful use objectives.

There are several options for capturing structured data from transcription.

The Documentation Transition

Prior to the EHR, providers had two basic tools at their disposal to document medical care: writing and dictating. In the traditional sense, these tools have been used by the medical community for many years; however, the outcome has always been a report containing unstructured data.

Unstructured data do not control what portion of a vocabulary a provider is allowed to use when documenting (e.g., free text) and are nonbinary and human readable. Structured data control the vocabulary a provider is allowed to use when documenting (e.g., a drop-down list containing select data elements) and are binary and computer readable.

Many organizations are still transitioning from the traditional forms of documentation to speech recognition with natural language processing (NLP) to capture structured data in the EHR. The speed of the transition depends on an organization's size, EHR strategy, and the technological tools and resources available to the provider.

Organizations currently undergoing the transition are struggling to capture the needed data elements to meet objectives and qualify for meaningful use incentives. As a result, some are employing abstractors to retrieve specific information from unstructured transcribed reports and re-enter the data into the EHR for structured data capture.

This re-entering process should be conducted on a short-term basis, be supported by management, include a quality assurance plan, and be managed by well-trained staff members.

Data Capture Choices

Capturing data to generate accurate and timely information is no easy task. Typing or keying structured data into the EHR can be accomplished by using tools such as templates, forms, or drop-down menus, but this manual entry can be time consuming. Effective use of speech recognition and integrated tools can promote and enhance structured data capture.

Front-end speech recognition with a once-and-done approach allows providers to create, edit, and sign the report, often dictating directly into EHR fields or selecting menu choices using voice commands. Some organizations provide the option of sending the front-end dictation to a medical editor for review before electronic signature. This lessens the workload for the provider and serves as an additional quality check.

According to Gartner, a consulting firm, "Several factors will cause once-and-done speech recognition to become dominant: (1) the economic advantage of faster production of the final note; (2) increased use of template-based note production; and (3) the growing ability to produce notes that contain structured data and natural language text."[1]

Back-end speech recognition or processing allows providers continued use of phones or digital handheld devices to perform dictation; in the background, the technology translates the recording into text. This is an added benefit for those providers who do not want to change their habits as well as organizations that benefit from successful conversion rates and improved turnaround times. Medical editors work closely with back-end technology in the following ways:

- Listening to the voice
- Editing text
- Providing additional formatting
- Applying quality standards if necessary
- Finalizing the document in preparation for electronic signature

In addition, organizations should pay attention to supportive tools that work in conjunction with speech recognition. Organizations should evaluate supporting technologies such as NLP and the Health Story Project guides that work in combination with speech recognition to enhance data capture and promote structure for integration into the EHR.

While use of NLP technology is widely recognized in computer-assisted coding applications, it is also growing in popularity when applied to speech recognition. NLP converts text into standard coded terminology using a controlled vocabulary such as SNOMED CT. It processes narrative dictation into structured dat (sometimes referred to as "narradata"), furthering the overall goal of capturing discrete data in the EHR.

In addition, the Health Story Project, an alliance of healthcare vendors, providers, and associations, supports structured narrative capture from transcribed reports by offering eight technical implementation guides. In February the Health Story Project and Health Level Seven International announced an industry project with the Office of the National Coordinator for Health IT to "consolidate and harmonize required health information exchange specifications that support meaningful use of EHR systems… to consolidate the guides into one package along with the HL7 Continuity of Care Document (CCD)."[2]

For more information, visit www.healthstory.com.

Making the Right Choice

Capturing and integrating structured data from transcribed reports to the EHR will continue to be a high priority as organizations strive to meet the meaningful use objectives. Since data are often captured and processed outside the EHR by speech recognition and supporting technologies, it is important to understand how data flow from point of creation into the EHR. This knowledge will identify opportunities for improved capture and processing and reveal opportunities where data elements may be repurposed.

Working collaboratively and encouraging open lines of communication with the organization's EHR team, providers, and technology vendors will support the focus and the goal of capturing structured data in transcription processes.

Notes

1. Gartner. "Hype Cycle for Healthcare Provider Technologies and Standards, 2010." www.gartner.com/DisplayDocument?doc_cd=205271.
2. Health Story Project. "ONC Announces New Project to Harmonize Standards That Support Meaningful Use of EHR Systems." February 20, 2011. www.healthstory.com/news/releases/consolidate.htm.

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