Revenues are down. Clinician morale is down. Risks are up.

Summary

Doctors are drowning in red tape regulating exactly how they must practice, including how they document patient encounters throughout their day. InfraWare solutions solve problems associated with providers performing their own documentation to meet Meaningful Use (MU) requirements -- including reduced revenue, lower morale and higher risks -- by providing a comprehensive documentation ecosystem including mobile dictation solutions, transcription service organizations and deep Electronic Medical Record (EMR) integrations. InfraWare's "No-click Documentation" SM helps doctors regain their voice. Returning them to rapid, expressive dictation, the solution enables them to enjoy their work, achieve EMR MU, see more patients and reduce risks from errors and omissions.

What Happened

For generations doctors dictated patient encounters

Approximately 1.2 billion clinical documents are produced in the United States each year[1] and until recently, 60% of clinical documentation was transcribed from dictation. It was fast, accurate and suited for conventional medical records. While nearly all other costs associated with healthcare encounters increased over the prior decade, transcription costs declined due to back-end speech recognition and global competition. Despite those growing efficiencies, something changed.

Meaningful Use was introduced to accelerate EMR adoption

The Health Information Technology for Economic and Clinical Health (HITECH) Act passed in 2009 as part of the economic stimulus package. Department of Health and Human Services (HHS) was to incentivize healthcare providers to capture, store and share medical records in a meaningful way. Rules were to be introduced in progressive stages. Meaningful Use Stage 1 (MU1) was published in July, 2010 and became effective in September 2010[2]. Stage 1 included no guidance on dictation or transcription for electronic records. This lack of insight would prove problematic.

Documents needed structure

Transcriptionists had typed in word processing programs such as MS Word, which were ideal for narrative language records. However, EMR programs are databases that rely on structured data that computers understand without human intelligence. Therefore, these documents could not provide information in the form EMRs needed. Providers were in for a surprise.

Problems for Providers

Clinicians were required to dictate less or stop altogether

As with most all computer programs, point-and-click is the primary data entry method for EMR applications. Many doctors found this more time consuming than dictation. When they wanted to return to dictation, the common compromise was to integrate a front-end speech recognition program, such as Dragon, because that was their only option at the time. It got worse.

Problems arose

1. **Economic**

   61% of doctors felt that their EMR required them to perform tasks that other staff could perform[3], which caused them to invest a larger portion of their day on documentation tasks, working far below the top of their license. Clinicians began seeing fewer patients per day and working longer hours because documentation took more time without dictation. Revenue declined an estimated 10% or $120,000 per year per doctor in the first year after EMR implementation[4]. 43% of doctors felt that using an EMR slowed them down.[3] That was just the beginning.

2. **Clinician satisfaction**

Doctors want to help patients and make a living commensurate with their skills by practicing medicine. Only 35% of doctors felt that using an EMR improved their job satisfaction; 65% felt that using EMR's reduced their job satisfaction.[3] Finally, 36% felt that using an EMR interfered with patient-doctor communication during face-to-face clinical care.[3] Many regulatory burdens are driving morale down. By using front-end speech recognition, providers become editors. They help fewer people and spend their additional hours at work on menial tasks that are not appropriate challenges for their skills. You might say they *lost their voice*. Beyond revenue and work satisfaction, new risks arose.

3. **Risk**

Transcriptionists had historically played an essential role. In addition to providing efficient clerical services, they had served as a safety net by routinely catching and correcting documentation errors. With the new documentation practices, errors from front-end speech recognition routinely slip by clinicians and making it into the chart - placing the doctors and provider organizations at risk due to the errors. For example, an anecdotal study showed that almost a quarter of errors corrected in content generated by speech recognition engines were medication errors which could cause serious complications for patients.[5] EMR documentation is more structured but often less complete as less narrative content describing the patient's full health story gets captured. In the era of RAC audits and ICD-10 coding complexity, the narrative is needed more than ever to justify full reimbursement without the risk of claw-back. Fortunately, there is a solution.

The Solution Becomes Possible

InfraWare had been working on this challenge since before the HITECH Act had even passed

Established in 2008, The Health Story Project, a group sponsored by InfraWare and a consortium of industry peers, had been working on a new standard document format for healthcare using Clinical Documentation Architecture (CDA). This XML computer language approach supports both narrative and discrete, structured data in the same document. Computers can understand the structured part and with CDA, computers could extract structured data from a transcribed CDA and include that patient data in an EMR. Detailed templates for many common document types were created, balloted and approved under a Health Level 7 Standards Body (HL7) associate charter for the uniform exchange of health information between computer systems. The basic elements of a solution were in place, but the Project needed both regulatory and industry support.

HHS recognized the problem

After studying the work of The Health Story Project, HHS supported and actually sponsored the next phase of work called the Consolidation Project. The result was a streamlined set of templates using common components called Consolidated CDA. But would EMR vendors get on board?

Meaningful Use Stage 2 fixed the regulatory oversight

HHS published Stage 2 rules in September 2012. They included Consolidated CDA as a requirement for certified EMRs beginning in 2014. Now there is a dictation solution for providers that leverages the skills and low-cost services of transcriptionists, and it *can* be integrated into patient records in EMRs that accept Consolidated CDA as mandated by the Stage 2 rules.

EMR vendors got on board

Customer-focused EMR vendors got on board. Some just wanted to comply with Meaningful Use Stage 2 (MU2) requirements, but many had higher goals to differentiate their products and promote higher user satisfaction scores.
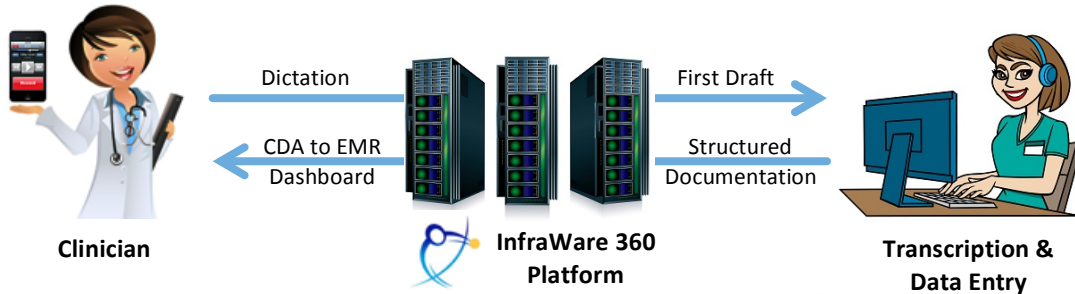
InfraWare connects the dots

After a decade of providing solutions to healthcare clinicians and documentation professionals, InfraWare applied industry leadership to complete an entire ecosystem that includes back-end speech recognition software and partnerships with Medical Transcription Service Organization (MTSO's) for transcription and data entry assistance, enabling clinicians to have the best of both worlds. They can enjoy the convenience and efficiency of dictation while meeting the needs of their EMR for MU. InfraWare's solution can work with any EMR that accepts Consolidated CDA (Stage 2 certified).

The Solution

Overview
InfraWare 360 is a documentation platform supporting an ecosystem of physicians and documentation specialists with technology that formats transcribed content for MU in the EMR. Healthcare providers enjoy *"No-click Documentation"* SM by returning to rapid, expressive dictation. The convenient mobile app has patient schedules and content reminders right on their smartphones.

Clinician → Dictation → InfraWare 360 Platform → First Draft → Transcription & Data Entry
Transcription & Data Entry → Structured Documentation → InfraWare 360 Platform → CDA to EMR Dashboard → Clinician

Economics
The cloud-based platform is secure, Health Insurance Portability Accountability and Affordability Act (HIPAA) compliant and more importantly, it preserves the best of the deep-rooted documentation paradigm while embracing the new requirements for MU. The ecosystem supported by the platform is synergetic. Savings for the healthcare enterprise far exceed the costs of using the services.

Many human and technology factors pull cost out of the process to yield efficiency. Back-end speech recognition accelerates transcription and data entry by medical language specialists. The Consolidated CDA standard eliminates the old expenses associated with conventional interface projects.

A comprehensive workflow platform empowers an entire service industry to yield efficiencies that are not practical when keying directly into EMR products.

Provider Satisfaction
No-click Documentation" SM helps them enjoy their work, achieve EMR MU, see more patients and reduce risks from errors and omissions.

Patient Satisfaction
Patients get precious little face-to-face time with their healthcare providers. Patients and their advocates are also getting increasingly interested in direct access to records. Patient portals, mandated by regulations, are accelerating this interest. By supporting dictation, clinicians can focus on their patients instead of a computer screen.

Learn More

InfraWare.com

About InfraWare

InfraWare is an established healthcare documentation software firm with unique intellectual property and experience. Serving healthcare providers and documentation specialists for over a decade, the company has led in areas of flexible, mobile dictation, back-end speech recognition, EMR interfacing and development of new HL7 standards for CDA through leadership in the Health Story Project.

Speech Recognition Primer (Frond-end vs. Back-end)

InfraWare's patent-pending First Draft Dictation Recognition Engine is an industry leading back-end recognition process with adaptive learning and Natural Language Processing (NLP).

Front-end Speech Recognition Dictation Software	Back-end Speech Recognition Dictation Software and Transcription.
Provider dictates and words appear on computer screen, which they complain is distracting.	Dictation is captured normally. Back-End speech recognition software generates a draft document for transcriptionist/editor. There are no distracting words to read for the doctor during dictation.
Sometimes the wrong words come up on the computer screen. Provider needs to be the editor as no one else reviews the information before it goes into the patient's record.	Transcriptionist/editor retrieves draft document and edits for accuracy. Completed draft is sent back to the provider for review and signature.
If no editor, erroneous information goes into the patient's record resulting in poor documentation.	Provider does not have to spend time editing recognition errors. Provider reviews and signs off on transcribed record in EMR dashboard resulting in higher morale and productivity.
Poor documentation leads to poor care, lower reimbursement and long-term risk.	Better documentation leads to better care, better coding and reimbursement and higher revenue.

Footnotes

[1] Health Information and Management Systems Society
http://www.himss.org/files/HealthStoryProject/downloads/HIMSS13-HealthStory-Fact-Sheet-Final.pdf
[2] Center for Disease Control
cdc.gov/ehrmeaningfuluse/introduction.html
[3] RAND Corporation
http://www.rand.org/content/dam/rand/pubs/research_reports/RR400/RR439/RAND_RR439.pdf
[4] CDW Healthcare, 2010
http://www.cdwnewsroom.com/cdw-healthcare-survey-ehr-price-tag-may-reach-120k-per-physician-speeding-changes-to-workflow-most-important-factor-in-reducing-costs/
[5] MTInnercircle, 2011
http://mtinnercircle.com/2011/10/07/medical-transcription-identifying-errors-protecting-patients/

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