

The Electronic Patient Narrative

A Clinical Imperative in the EMR Era

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Executive Summary

The role and quality of clinical documentation has taken on greater importance in an environment driven by outcomes and “pay for performance” measures.

In the rush to computerize patient information, it’s been assumed that once electronic medical record (EMR) systems are widely deployed, patient records would be more complete and provide substantial cost savings,¹ while the quality of care would universally be safer.² However, studies have shown that in some cases, the adoption of highly-structured clinical documentation templates do not in themselves lead to higher quality care, as template-based systems do not support the capture of the clinical narrative—patient documentation in the clinician’s own words—which is vital for giving a truer picture of the patient assessment.

This white paper highlights the need for the electronic patient narrative (EPN) as an essential part of a patient’s electronic health record. We define the electronic patient narrative as the *free-text clinical documentation by a provider in his or her own words which is part of the electronic medical record*. EPN is a key element of electronic medical records—required to maintain quality of care standards, protect practice revenue, and minimize exposure to medical/legal concerns.

The white paper argues that a well-defined strategy to ensure narrative creation should be in place as part of an EMR roll-out to ensure smooth adoption of the EMR across a hospital or physician practice.

Speech recognition is a viable and proven technology, which allows physicians the freedom to dictate electronic patient narratives in their own words directly into commercial EMR systems. This combination of free-text narrative, in combination with an EMR’s template-based, point-and-click charting methods, provides the best of both worlds.

Structured Data for Medical Decision Support

In the rush to computerize patient information, it’s been assumed that once EMR systems are widely deployed, patient records would be more complete and care would universally improve, particularly in acute care settings.

EMR systems provide a vital element of patient data—structure—so a significant portion of medical information can now be codified for analysis. There is broad agreement that as much of the medical record should be structured as possible.

Systems to codify procedures (CPT codes) and diagnoses (ICD-10, SNOMED) have been in place for years to support both billing and research initiatives. Structured, or codified, data is required for medical billing and medical research.

Structured data provides an opportunity for software to intelligently support patient care. “The electronic storage of clinical information will create the potential for computer-based tools to

¹ Institute of Medicine (IOM) Health Care Services. Crossing the Quality Chasm: A New Health System for the 21st Century. National Academy Press, 2001.

² *Ibid.* To Err Is Human: Building a Safer Health System. National Academy Press, 1999.

help clinicians significantly enhance the quality of medical care and increase the efficiency of medical practice. These tools may include reminder systems that identify patients who are due for preventative care interventions, alerting systems that detect contraindications among prescribed medications, and coding systems that facilitate the selection of correct billing codes for patient encounters.”³

While structured, templated-based EMR systems have clear benefits of generating and storing more consistent and accessible patient data, relying solely on structured data for documenting care would have a significant effect on clinical interpretation. Physician documentation has always been a task where doctors have traditionally been both the creators and arbiters of form and style. In most clinician-to-clinician interaction, the written—or dictated—word is the method by which patient information is communicated and shared.

EMR systems’ design and purpose run contrary to this traditional approach and workflow. In particular, they threaten one aspect of clinical documentation—the patient narrative—with becoming an endangered species.

The Patient Narrative

“What is a clinical narrative? ... A clinical narrative is a first person ‘story’ written by a clinician that describes a specific clinical event or situation. Writing the narrative allows a clinician to describe and illustrate her/his current clinical practice in a way that can be easily shared and discussed with professional colleagues. In addition, the narrative can help clinicians examine and reflect on their clinical practice or analyze a particular clinical situation.”

— DESCRIBING PRACTICE THROUGH CLINICAL NARRATIVES: GUIDE FOR CLINICIANS
MASSACHUSETTS GENERAL HOSPITAL

Lost in the rush to structured, template-driven EMR systems is the need to preserve a critical piece and “archaeological artifact” of a medical encounter—the clinical narrative. In fact, the role of the narrative in the world of codified medical data has not been readily determined.

The narrative has long played a critical role in communication with other clinicians.

“Narrative allows us to share complex ideas in an efficient and often seemingly effortless manner. Its use in the medical record is extremely important for clinicians because it allows them to synthesize disparate facts and data elements and to paint a picture rich with meaning that is easily interpreted by other clinicians,”⁴ concludes Jason S. Shapiro, MD of Columbia University’s Department of Bioinformatics, who has researched methods to organize narrative clinical information in a taxonomy that makes it easier to be accessed.

³ The Benefits and Challenges of an Electronic Medical Record: Much More than a “Word-Processed” Patient Chart, Walter V. Sujansky, MD, PhD, Palo Alto, California. *Western Journal of Medicine*. 1998 September; 169(3): 176–183.

⁴ Document Ontology: Supporting Narrative Documents in Electronic Health Records. Jason S. Shapiro, MD, Suzanne Bakken, RN, DNSc, Sookyoung Hyun, RN, MS, Genevieve B. Melton, MD, Cara Schlegel, RN, MS, and Stephen B. Johnson, PhD, School of Nursing and Department of Biomedical Informatics, Columbia University, New York, New York; *AMIA Annual Symposium Proceedings*. 2005; 2005: 684–688.

Pursuing a structure-only or template-only direction, which minimizes free-text narrative in medical records creation and management, poses several challenges.

Incomplete or misinterpreted patient documentation. EMR systems used in both physician practice and hospital settings are based predominately on template-based systems relying on clinicians to check boxes, radio buttons or choose from a pull-down menu which ensure that data elements are captured and stored in a structured database format. “Structured data entry does not support the expressiveness and flexibility to which clinicians are accustomed, and it can be difficult to interpret and reconstruct meaning from structured data due to loss of contextual information.”^{5,6}

On the interpretation of medical records, Shapiro writes, “Much of the meaning and inference that can be gleaned by the clinician through the use of narrative is lost when a rigidly structured template is used, and the ability to communicate complex ideas in an efficient and fluid manner diminishes.”

Experienced EMR users agree. “Although our EMR system is an exceptional product, you cannot make a template to cover every situation and scenario,” said Dr. Steve McCullough, a nephrologist based in Paducah, Kentucky, and strong advocate and user of electronic medical records in his internal medicine practice.

Omission of subjective observations which increase the possibility of adverse medical effects. A study⁷ conducted by clinicians and researchers using data from the Veterans Health Administration (VHA) EMR system—one of the largest EMR systems in operation—has shown that a critical mass of adverse drug events (ADEs) occurred due to incomplete information captured electronically but not stored directly into the VA’s EMR system. “Narratives...are a rich (albeit difficult to process) source of ADE surveillance data,” the study concludes.

Impact on Coding and Reimbursement

The quality of the clinical narrative in a patient record also impacts the revenue cycle management practices and financial health of a provider organization.

“Remember, you don’t get reimbursed for what you do, you get paid for what you document!” advises an advisory bulletin published by the American College of Emergency Physicians.⁸ That same maxim is frequently applied to physicians in both private practice settings and in acute care environments.

The pending reductions in reimbursement contained in the proposed 2008 Medicare schedules⁹ means physicians must see more patients to maintain revenue levels of the previous year. These new economics put a premium on ensuring each medical record has the full degree of clinical information captured to maximize reimbursement.

In the United States, the greatest proportion of physician reimbursement is based on the Encounter & Management (E&M) visit coding schema supported by CMS and over 90% of all payors in the U.S.

⁵ *Ibid.*

⁶ Patel VL, Arocha JF, Kushniruk AW. Patients’ and physicians’ understanding of health and biomedical concepts: relationship to the design of EMR systems. *Journal of Biomedical Informatics*. 2002 Feb;35(1):8–16. [PubMed]

⁷ “Critical Gaps in the World’s Largest Electronic Medical Record: Ad Hoc Nursing Narratives and Invisible Adverse Drug Events,” John F. Hurdle, MD, PhD, Charlene R. Weir, RN, PhD, Beverly Roth, PharmD, Jennifer Hoffman, PharmD, and Jonathan R. Nebeker, MS, MD1,3AMIA Annu Symp Proc. 2003; 2003: 309–317.

⁸ “Coding and Reimbursement Pearls,” ACEP website. www.acep.org

⁹ Center for Medicare and Medicaid Services (CMS). www.cms.gov

The level of service at which a physician can bill is based on the descriptors for the levels of E/M services—seven components evaluated to determine the appropriate coding:

- History of the present illness (HPI)
- Physical examination
- Medical decision-making (patient assessment and treatment plan)
- Counseling
- Coordination of care
- Nature of presenting problem
- Time spent with the patient

However, “the first three components (history, examination and medical-decision making), are the key components in selecting the level of E/M services.”¹⁰

Because the medical decision-making aspect of a patient note must reflect a physician’s *observation, thinking, assessment and reason for treatment plan*, and because no two cases present the same way—and no two doctors have the same thought process—a template-based HPI and medical decision-making documentation method will not allow physicians to document the encounter in a manner that accurately captures each individual case.

Providers Need an Electronic Patient Narrative Strategy

For the above reasons, we believe it is critical for provider organizations to focus on the electronic patient narrative (EPN) as an essential part of a patient’s electronic health record.

We define the electronic patient narrative as *the free-text clinical documentation by a provider in his or her own words which is part of the electronic medical record*. EPN is a key element of electronic medical records—required to maintain quality of care standards, protect practice revenue, and minimize exposure to medical/legal concerns.

The electronic patient narrative is not new. It’s been a part of a patient’s record for as long as computers have been deployed in a clinical setting. It’s been created by either traditional dictation—in which transcription has been stored in word processing files, available for review or distribution—or typed by clinicians who are keyboard-friendly.

Given the importance of the patient narrative, provider organizations should develop a well-conceived strategy to ensure its consistent creation and accessibility. The strategy should include:

- Stipulating the creation of electronic patient narratives within the EMR as a standard practice
- Making available physician-friendly narrative creation methods that don’t slow doctors down

Narrative support within the EMR. Ensuring that narratives are created, stored, and reviewed

¹⁰ American College of Rheumatology, Documentation and Guidelines, 2008.

by other staff on the care team is as much an organizational readiness and training challenge as it is about mastering technology.

Most EMR systems have at least one “comment” or “note” field in their encounter note or template system. Finding the note section in some EMR systems, however, is not always intuitive. Key tactics to ensure the narrative is created and reviewed on a regular basis include:

- Developing patient narrative guidelines as part of your medical records guidelines
- Familiarizing your clinicians with its access and use during training and implementation is critical—both physicians and nurses alike
- Reviewing the note section of the record needs to be standard practice, especially in acute-care situations where multiple clinicians may be caring for the same patient.
- Making sure that when records are printed, the contents of the note field are part of the output is not always a standard configuration “out of the box”
- Reviewing the existence and quality of patient narratives as part of your chart review process

Support for dictation approaches to create the narrative. EMR systems support the creation and storage of the patient narrative in a variety of methods:

- Typing the information directly into the note section
- Dictating the narrative, and either having the transcriptionist type the dictation into the notes section, or having the narrative uploaded from the transcription system to the correct section of the EMR
- Speech recognition, which supports the creation of the narrative directly into the note section without typing or transcription.

Both typing and traditional dictation input methods have significant downsides. Turning doctors into typists slows most physicians down significantly—unless they happen to be fast typists. Dictation and transcription add back costs, whose very elimination is used by many administrators to justify the EMR purchase.

Speech Recognition Lets Doctors Dictate Narratives Directly into the EMR

Using speech recognition to enable clinicians to dictate the narrative directly into an EMR is an evolving strategy.

The Dragon® NaturallySpeaking® Medical software system is a product that speech-enables any Windows-based EMR program. The benefits of speech-driven narratives within the EMR are:

- Allows physicians to dictate in their own words
- Reduces time spent documenting medical decision-making
- Doesn't add recurring labor cost
- Ensures report creation/signoff is done in “real-time”—as soon after care as possible
- Supports maximum level of reimbursement

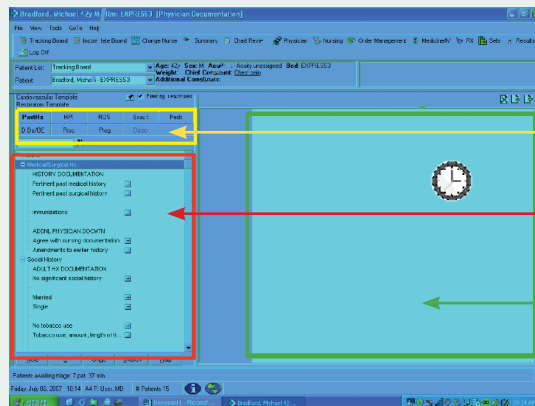
Dragon Medical enables clinicians to easily dictate or augment the History of Present Illness, Assessment, and Plan as part of their electronic patient narrative.

“The plan is the most important piece of the document; you want the physician’s thoughts within your plan...Dragon Medical has allowed us to do that” within the structure of their EMR, said Dr. McCullough.

Others agree. “At my former practice, I felt the pain of dealing with this total point and click world. The dream of speaking into the note instead of typing to supplement my point and clicks is now becoming a reality,” said Dr. Douglas Golding, CMIO and primary care physician, Lifetime Health Medical Group, Buffalo, NY, who uses Dragon Medical with his NextGen EMR system. Dr. Golding further emphasized the importance of narrative dictation within a note, “It’s very important to show *why* a provider has chosen a certain diagnosis; we need to document the thought process.”

Saving clinicians time should be one objective outcome of deploying information technology. Were physicians to type their narrative, they would add precious minutes of time to documenting each encounter or procedure. Dragon Medical allows full dictation flexibility but still saves clinicians time in all settings—even in the military. A recent US Army-sponsored study showed that nearly 80% of all clinicians using the military’s AHLTA EMR system driven by Dragon felt it made the EMR faster and easier to use, with a similar percentage reporting that it either improved or significantly improved their practice of medicine.

Dragon® NaturallySpeaking® Medical lets doctors dictate in their own words, complementing the rigid structure of an EMR



Dragon NaturallySpeaking navigation—command/control

Structured “point and click” data entry

Dragon NaturallySpeaking-dictated narrative; History of Present Illness, Review of Systems, Assessment and Treatment Plan

Conclusions

This white paper highlights the need to focus on the electronic patient narrative (EPN) as an essential part of a patient's electronic health record.

We argue that a well-defined strategy to ensure narrative creation should be in place as part of an EMR roll-out to ensure smooth adoption of the EMR across a hospital or physician practice.

Speech-driven clinical documentation is a viable and proven technology which allows physicians freedom to dictate electronic patient narratives in their own words directly into commercial EMR systems.

The combination of free-text narrative with an EMR's template-based charting software allows doctors to practice data-driven patient care while documenting their observations and recommendations in their own words—the best of all possible worlds.

The experience speaks for itself™