

The Electronic Patient Narrative

A Clinical Imperative in the EHR 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 Health Record (EHR) systems were 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 don’t in themselves lead to higher quality care, as template-based systems don’t 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 EPN as the free-text clinical documentation by a provider in his or her own words, which is part of the electronic health record. EPN is a key element of electronic health 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 EHR roll-out, to ensure smooth adoption of the EHR across a hospital or physician practice.

Speech recognition is a viable and proven technology, which allows physicians the freedom to dictate EPNs in their own words directly into commercial EHR systems. This combination of free-text narrative, in combination with an EHR’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 EHR systems were widely deployed, patient records would be more complete and care would universally improve, particularly in acute care settings.

EHR 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-9 now and ICD-10 in the future, 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 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

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.

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.

While structured, template-based EHR 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.

EHR 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 EHR 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. 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

EHR systems used in both physician practice and hospital settings are based predominately on template-based systems, relying on clinicians to check boxes or radio buttons, or choose from a pull-down menu which ensures 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 EHR users agree. “Although our EHR system is an exceptional product, you cannot make a template to cover every situation and scenario,” says Steve McCullough, MD, a nephrologist based in Paducah, Kentucky, and a strong advocate and user of electronic health records in his internal medicine practice.

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.

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]

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) EHR system—one of the largest EHR 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 EHR 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 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.

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.

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

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

PROVIDERS NEED AN EPN STRATEGY

For the above reasons, we believe it is critical for provider organizations to focus on the EPN as an essential part of a patient's electronic health record. We define the EPN as *the free-text clinical documentation by a provider in his or her own words which is part of the electronic health record*. EPN is a key element of electronic health records—required to maintain quality of care standards, protect practice revenue, and minimize exposure to medical/legal concerns.

The EPN 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 EPNs within the EHR as a standard practice.
- Making available physician-friendly narrative creation methods that don't slow doctors down.

Narrative support within the EHR. Ensuring that narratives are created, stored, and reviewed by other staff on the care team is as much an organizational readiness and training challenge as it is about mastering technology.

Most EHR systems have at least one 'comment' or 'note' field in their encounter note or template system. Finding the note section in some EHR 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—both physicians and nurses alike—with its access and use during training and implementation is critical.
- 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—which isn't 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. EHR 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 EHR.
- 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 doctors 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 EHR purchase.

SPEECH RECOGNITION LETS DOCTORS DICTATE NARRATIVES DIRECTLY INTO THE EHR

Using speech recognition to enable clinicians to dictate the narrative directly into an EHR is an evolving strategy. The Dragon® Medical Practice Edition software system is a product that speech-enables any Windows®-based EHR program. The benefits of speech-driven narratives within the EHR 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

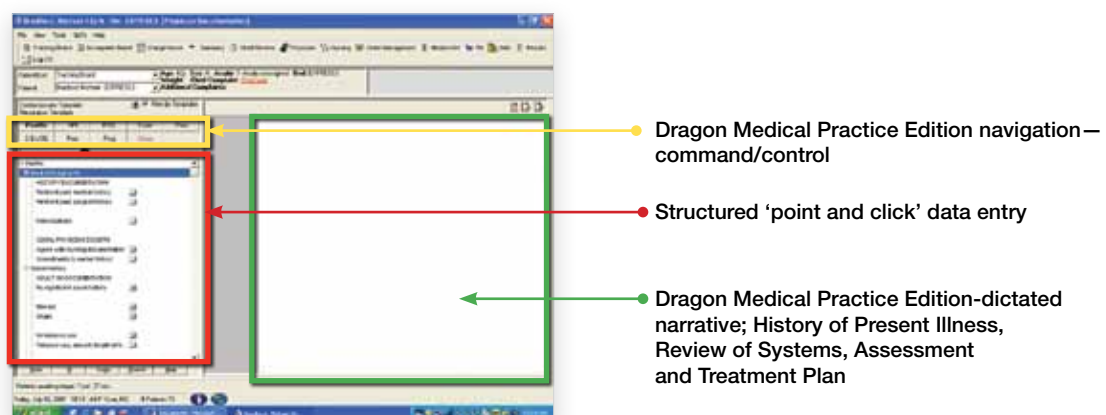
Dragon Medical Practice Edition enables clinicians to easily dictate or augment the History of Present Illness and Assessment and Plan as part of their EPN.

"The plan is the most important piece of the document; you want the physician's thoughts within your plan...Dragon Medical Practice Edition has allowed us to do that within the structure of our EHR," says Dr. McCollough.

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," says Douglas Golding, MD, CMIO and primary care physician, Lifetime Health Medical Group, Buffalo, NY, who uses Dragon Medical Practice Edition. 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 Practice Edition allows full dictation flexibility but still saves clinicians time in all settings—even in the military. A recent U.S. Army-sponsored study showed that nearly 80% of all clinicians using the military's AHLTA EHR system driven by Dragon Medical Practice Edition felt it made the EHR faster and easier to use, with a similar percentage reporting that it either improved or significantly improved their practice of medicine.

Dragon Medical Practice Edition lets doctors dictate in their own words, complementing the rigid structure of an EHR



CONCLUSIONS

This white paper highlights the need to focus on the 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 the EHR roll-out, to ensure smooth adoption of the EHR across a hospital or physician practice.

Speech-driven clinical documentation is a viable and proven technology which allows physicians the freedom to dictate EPNs in their own words directly into commercial EHR systems.

The combination of free-text narrative with an EHR'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. ■