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How to Teach Good EHR Documentation and Deflate Bloated Chart Notes

Neda Frayha, MD

Abstract

Since health care organizations implemented widespread adoption of electronic health records (EHRs), clinicians' notes about patients' care have become longer and more cumbersome, a phenomenon colloquially known as "note bloat." Bulky templates and blocks of data take time to sort through, making it difficult for clinicians to discern what is clinically and ethically relevant in prior clinicians' notes about their encounters with a patient. This article considers important consequences of long, dense notes for clinicians, including less time to spend face-to-face with patients. Bloated notes have other consequences for teaching and for clinician well-being, so this article proposes a less-is-more approach to electronic documentation that focuses on making important information about a patient easier to find, illuminating clinical reasoning, and promoting efficiency, concision, and clarity in EHR documentation practices.

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Advent of Electronic Health Record

"The ability to simplify means to eliminate the unnecessary, so that the necessary may speak." Attributed to the 20th-century abstract painter Hans Hofmann, this quotation originally applied to abstract art and its relationship to reality.¹ Hofmann's contemporary, Ludwig Mies van der Rohe, the famous architect and interior designer, echoed a similar sentiment when he coined the expression, "Less is more."² While he was referring to the skyscrapers, pavilions, and even chairs for which he would become known, the idea of less is more applies equally well to today's electronic health record (EHR).

The modern EHR had its origins in computer technology first developed in the 1960s,³ and its adoption in clinical practices across the United States became more widespread after the passage of the Health Information Technology for Economic and Clinical Health Act, part of the American Recovery and Reinvestment Act of 2009, which provided financial incentives for health care institutions to adopt EHR technology.⁴ The final rule

implementing the 21st Century Cures Act of 2016 further promoted the importance of the EHR in the patient-clinician relationship by requiring that patients have access to all of their electronic health information at no cost and that test results be **released electronically to patients** in a timely manner; many health systems release all or most test results as soon as they are finalized.⁵

Throughout past decades, the patient note has evolved from handwritten bullet points on a paper chart to a multipage electronic document replete with blocks of imported data, templated physical exams that might or might not reflect what was performed in the examination room,⁶ and dot phrases that might actually increase note length.⁷ By necessity, the handwritten patient note strove to capture the most essential details of a patient's story. The clinician needed to synthesize and distill the information in the medical history and physical exam into a concise, prioritized assessment and plan. There was never an expectation that a handwritten patient note would or could be multiple pages in length. The note's relative brevity reflected the discernment of a practitioner. Only the most relevant, important elements of the patient's story and plan could make their way into the finished product. This discernment, in turn, became part and parcel of how medical learners approached their own **patient assessments and documentation**. For generations, it was incumbent upon clinicians to learn and then teach what to include within a finite amount of space.

Now, however, patient notes created and stored within the EHR serve a variety of masters: patients and clinicians (as before) and also billing departments, insurance companies, risk management offices, malpractice attorneys, and quality monitoring organizations, among others.^{8,9} As the intended audiences of the patient note have evolved with the widespread use of the EHR, so, too, has "note bloat"^{10,11}—the amount of time clinicians spend on documentation—and how today's medical students and residents learn to approach their own note writing.

EHRs' Evolving Influence

By one 2020 estimate, 50% of a given clinician note is copied and pasted from prior notes, up from 33% in 2015.¹² This duplication of content might require a physician who sees 10 patients per day to review at least 85 pages of single-spaced text across nearly 700 notes.¹² Moreover, laboratory results imported into notes in a templated fashion are inserted indiscriminately en bloc, where *all* lab data are included rather than only significant or abnormal results. All of this added length has profound repercussions for physicians in clinical practice, who are now absorbed in the computer screen before, during, and after every patient encounter: poring through dozens of pages of medical records while pre-charting, typing rapidly and staring at the computer screen instead of the patient during the visit, and then spending as much time documenting the visit afterward as they did on the visit itself.^{13,14,15} This phenomenon led the renowned physician and author Abraham Verghese to coin the term "iPatient" in 2008, identifying a modern-day "chart-as-surrogate-for-the-patient approach" to medicine.¹⁶

Unsurprisingly, the added time and energy spent satisfying the EHR's demands impact the very humanity of the patient being cared for. They come at the expense of time spent at the patient's bedside for seasoned clinicians and trainees alike. By some estimates, physicians spend more time in the EHR than with the actual patient.¹⁵ And with patients' increased access to their health records, including lengthy, jargon-filled notes and reports their clinician might not have seen, the potential for patient confusion abounds.¹⁷ As the patient chart has metamorphosed into a compliance document and a

receipt for services rendered, its reams of data might tell everything but the patient story at the heart of the encounter. If a humanizing detail does make its way into the note—a recent vacation, how a medication change impacted the patient’s daily life, grief over a fresh loss—it quickly becomes lost among all the templates.

This diminishment of patient humanity, along with after-hours “pajama time” spent charting¹⁸ and the cognitive load of constantly interfacing with the EHR, also contribute to clinician burnout and attrition,^{19,20,21,22} a critical problem facing today’s health care workforce that has been written about extensively.^{23,24,25} The ever-growing pressures of the EHR have equally profound ripple effects on medical trainees, who warily observe their burned-out attending physicians while learning from early on that “more is more” when it comes to their documentation. They grow up in a system demanding as much recordkeeping as possible—not crisp, concise summations of their thought processes. How might this shape those very thought processes? When patient notes are a collection of copy-and-paste keystrokes, what cost might there be to a trainee’s developing clinical reasoning skills?

Teaching and Revising EHR Methods

As clinicians strive to reclaim the patient note for its original purposes and include trainees in this reclamation, a few solutions are worthy of exploration. One is a modified template. Changes to the standard EHR note template have been suggested for over a decade, including a model that simply rearranges existing portions of the note to place Assessment and Plan before the Subjective and Objective sections (APSO, rather than SOAP).²⁶ If the most important information is placed at the top of the note, perhaps it will be easier for other clinicians to find.

A more streamlined model for shorter notes that **document only relevant data**, piloted among medical interns, has been associated with earlier physician completion of documentation and favorable impression scores regarding note quality.²⁷ Another intervention in which medical students received formal instruction in note writing and then were given a specially designed, shorter note template with minimal auto-populated data led to notes that were significantly more “up to date,” “accurate,” “organized,” and “comprehensible” than the control group’s notes.²⁸ Patient notes in this intervention group were also 35% shorter and took less time to complete.²⁸ In both models, the specially designed templates minimized the auto-population of data and prompted clinicians to enter relevant physical exam and lab findings manually.

Beyond modifying templates to either rearrange the order of existing note sections or reduce the sheer volume of relayed data, an interesting experiment would be to remove templates altogether and challenge medical students (and even residents and attending physicians) to write the shortest note possible that communicates the essential elements of a patient’s story. As one expert and advisor to the American Medical Association (AMA) has observed, imagine if physicians ignored old templates and began writing notes on a blank screen. Then, they could determine what information was actually needed and recreate new, more appropriate templates accordingly.²⁹

Many resources exist to support clinicians in this new, old world of less-is-more. The AMA has published a deimplementation checklist to reduce unnecessary burdens in daily clinical life that confer little-to-no added clinical benefit to the patient.³⁰ The section on reducing note bloat encourages health systems and individual practitioners to reduce the number of embedded template links automatically pulling data from the larger EHR

into notes. The AMA also offers a toolkit for reducing EHR inbox burden,³¹ and the American College of Physicians' Patients Before Paperwork Initiative provides advocacy resources, an emotional support hub, and tips and tricks for practicing physicians in different specialties to streamline documentation.³² Launched in 2022, the American Medical Informatics Association's 25 x 5 Initiative seeks to reduce the medical documentation burden to 25% of its current state within 5 years, replete with policy briefs, its own toolkit, and a Slack community where any interested clinician can engage with colleagues nationwide who support this goal.³³

While other solutions involve artificial intelligence (AI) to **help write patient notes** or assist with clinical decision-making,^{34,35,36} the inherent work of clinical reasoning and figuring out what is important versus what is extraneous remains a deeply human task. AI can support clinicians, but it can't (yet, if ever) replace them. Patients still need a human being to understand their medical condition, not to mention their very humanity. And that human being, in turn, presumably went into medicine to care for people, not electronic notes. To this end, stakeholders such as insurance companies, billing departments, and risk managers must be a part of any meaningful solution to documentation pressures and note bloat. Clinician notes can achieve their less-is-more potential only if the ever-growing demands for documentation from parties outside the clinician-patient relationship are reevaluated and relaxed.

Conclusion

It is time for clinicians and health care systems to rethink the fallacy that more is more when it comes to documentation in the EHR. The current landscape of bulky templates, note bloat, increased documentation burdens leading to pajama time, reduction and dehumanization of patients to their electronic avatar counterparts, and clinician burnout demands a new approach. Physicians deserve to return their focus to the art and science of caring for the patient before them rather than being absorbed by the computer screen throughout every clinical encounter. Medical trainees deserve the opportunity to think clearly about their patients and use notes to convey only the most salient points of the patient's story, the most important elements of the assessment and plan. How much time and cognitive energy could such a reenvisioning of the EHR note save? How much easier would it be for a fellow clinician to find relevant information and understand how the patient is really doing? May the health care system and the people of health care move to eliminate what is unnecessary, so that the necessary might speak.

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Neda Frayha, MD is the audio editor-in-chief and senior director of education at Hippo Education, where she also serves as editor and host of the podcast *Primary Care Reviews and Perspectives*. She is currently faculty and was previously an assistant dean of student affairs at the University of Maryland School of Medicine in Baltimore, where she created and led successful education programs and won numerous teaching awards. She has written for the *Washington Post* and *Katie Couric Media*, produced public radio stories for WHYY in Philadelphia, and been featured on podcasts such as *The Curbsiders*, *The Broad Experience*, and *The Pulse*.

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