EMRs and Physician Time: A Real Problem
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Abstract

EMRs consume more physician time than old paper processes, especially in the office practice setting. There is no longer much room for debate about this. A recent research letter to JAMA Internal Medicine from Clement McDonald and colleagues at the National Library of Medicine showing yet more evidence that physicians lose time due to EMR use—an average of 48 minutes per day in the study—has drawn attention in recent weeks. But it is merely the latest of many studies over the years showing that EMR use frequently prolongs the doctor’s day in the office. And McDonald et al.’s findings are no surprise to those of us who have participated in EMR implementations and seen this first hand.

In the midst of a national push for EMR adoption largely motivated by the federal EMR Incentive Program, the McDonald study should cause us to pause and assess this particular serious adverse consequence of EMR implementation—and ponder how to remedy it.
The Problem

There is no question that the EMR is, and should be, here to stay. The benefits of the EMR have been widely published, and the EMR Incentive Program deserves credit for forcing health care to join the 21st Century in adopting modern practices for communication and documentation. But along with any computerization effort comes unintended consequences. We have paid much attention over the last decade to these consequences, particularly as they affect patient safety and care quality.

The list of possible adverse effects on doctors is concerning, too. EMR use has been associated with increased job stress, lower job satisfaction, physician burnout, and intent to leave practice in one recent study. Impact on patient volume appears mixed. But the most consistently reported adverse effect of EMR adoption is increased physician work and time. McDonald’s findings are similar to those of other studies, which showed that practitioners spent an average of 48 additional minutes per day on EMR-related tasks. These tasks include visit documentation, inbox message management, and in some cases, even locating and reviewing results. In addition, those of us with personal experience with EMRs in large provider organizations know that other IT complications—ambulatory EMRs that are not integrated with hospital EMRs; undependable public or private health information exchanges; lack of single sign on when more than one application must be used in the office or hospital; even just finding an available device to log onto—add to the frustrations experienced by doctors trying to get through their work day.

These undesirable consequences can do more than increase doctors’ work—they can lead to increased physician resistance to EMR adoption. Most doctors approach adoption of a new EMR tentatively, but with an open mind. If we do not do a better job of addressing these drawbacks, this may change.

2) Kilbridge, P. Unintended Consequences of Health IT. The Advisory Board, November 16, 2011.
Origins and Possible Solutions

EMR use can introduce inefficiencies in practice in myriad ways. These include characteristics of the applications themselves, and the manner in which they are configured by provider organizations and loaded with content prior to go live. Inbox messaging systems can become sources of unnecessary work: one study showed 40% of inbox messages—each requiring a signature—were simply notifications that patients had refilled their medications. The distribution of history taking, physical examination (e.g., obtaining vital signs), and documentation tasks among the office clinicians (e.g., medical assistants, nurses, advanced practitioners, doctors) can greatly influence time required of the physician by the EMR. And the most frequently cited source of physician time drain is visit documentation.

EMR Configuration

Every EMR selection and implementation should include meaningful physician participation in all aspects of decision-making during system configuration to optimize the chances for efficient system design. Further, an EMR implementation is an opportunity for culture change and practice redesign. For example, inbox management—avoiding flooding the doctors with unnecessary signature requests and other work—may require culture change, reexamination of job roles, and workflow redesign. The same is true for clinician task redistribution to promote a more team-based approach to patient care.

Physician Documentation: Templated Documentation

Optimization of physician documentation is a special challenge. EMRs are designed for direct documentation of all aspects of a patient visit in the system using keyboard, mouse, speech recognition, or touch screen. Most EMR products accomplish documentation with the use of a series of templates, configured to varying degrees both by the vendor and the implementing organization, designed to capture as many pertinent details of the encounter as possible as discrete data. The option to type narrative text in some fields also exists.

Well-designed templates can, in some circumstances, yield very efficient documentation. Alternatively, they can be excruciatingly painful and frustrating to complete. Unfortunately, no simple formula for successful template design and use exists, as the permutations of individual physician preferences, practice styles, specialty requirements, and unique documentation needs are numerous.

Dictation

Most EMRs can incorporate dictation, permitting doctors to insert text blocks and, often, navigate through documentation fields using voice commands. The latter approach necessitates the use of real-time dictation and speech recognition, in which the physician edits and corrects the dictation as he or she proceeds. Back-end speech recognition is an alternative, as is traditional dictation; in these cases the physician inserts a dictation marker (place holder) in the note for later insertion of the transcribed text. None of these options is a panacea, as their use still requires juggling keyboard and mouse manipulation next to dictation. Heavy dependence on dictation reduces the effectiveness of clinical decision support (CDS) and greatly reduces the capture of discrete data for analytics. All of these options bring additional costs beyond that budgeted for basic EMR purchase and implementation.

Another option that has gained popularity, particularly in the emergency medicine setting, is the use of scribes to perform EMR documentation as the physician interviews and examines the patient. Scribes are individuals trained in EMR use. Some studies have found significant physician time savings and productivity increases using scribes.\textsuperscript{10} Drawbacks include the expense of scribes plus the distancing of the physician from the EMR and CDS.

What’s an Organization to Do?

EMR implementation, therefore, must target not only “meaningful use,” but efficient use from the provider’s point of view. A successful formula must include the following:

• Ensure individual physician involvement in documentation design decisions. This will not prevent problems; often times the difficulties are not apparent until the system has been in use for some time. But lack of physician involvement is a formula for disaster.

• Be flexible in approaching documentation options. Offering dictation as an option is frequently a wise investment. Some organizations have found that many doctors who use dictation initially abandon it as they perfect their use of the EMR’s documentation tools.

• If you absolutely must utilize scribes, limit their use to situations that warrant it, especially high-volume, high-margin practices, in which scribe use may be most valuable. The resulting distancing of the physician from the EMR remains worrisome. Organizations should continue to seek efficient alternatives to scribes as EMR interfaces and data capture options improve—along with the value of CDS.

• Optimize workflow-centered EMR configuration and implementation. Learn from those doctors who are not slowed down: what worked for them? Can it be applied elsewhere? Often the difference between a faster-performing physician and a laggard comes down to system education and user sophistication with the application; additional training and assistance can address this.

• Use your clinical IT governance structure (likely led by the CMIO) to make careful decisions about the degree of individual variation to permit during system configuration and optimization. Use established tools and templates, together with a flexible consideration of workflow options. Avoid extensive system customization—this leads to other problems.

• Continue to revisit and optimize EMR use regularly, sharing lessons learned from successful physicians and practices with others.