

CORR Insights®: How are Electronic Health Records Associated with Provider Productivity and Billing in Orthopaedic Surgery?

Thomas K. Wuest MD, MMM

Where Are We Now?

In a retrospective study of various national databases, Dandu and colleagues [2] report a number of key findings and provide some interesting observations on how the Electronic Health Record (EHR) impacts various aspects of an orthopaedic practice. They document support of some widely held assumptions, including that Meaningful Use payments were a potent stimulus for adoption of EHRs. However, these bonus payments were not sufficient to assure neither

universal nor uniform adoption, and there remains a large percentage (nearly 50% in US orthopaedic practices) that have yet to fully embrace their implementation. Also, despite the purported benefits of more thorough and accurate coding and enhancement of documentation, there was little effect on productivity, billing practices, and surgical volumes. This is an important first step in trying to unravel the cavalcade of potential consequences, both intended and unintended, of the near-ubiquitous use of EHRs in clinical practice.

As part of the American Recovery and Reinvestment Act (ARRA), the Health Information Technology for Economic and Clinical Health generously incentivized EHR adoption, and the authors of the current study demonstrate that the “carrot” was more effective than the “stick” in increasing EHR utilization. That is, the Meaningful Use payments in the early implementation phase of the ARRA were largely successful, and the latter penalty phase has been much less impactful. In addition, the economic realities of an orthopaedic practice can make the decision to move ahead with adoption both complicated and difficult. On one hand, the gross practice income may facilitate adoption, capital investment, and systems purchasing that would

otherwise be prohibitive for smaller primary care offices or less well-compensated practitioners and groups. On the other hand, if the Meaningful Use payments are merely “a rounding error” with respect to total practice income, the investment may be seen as a waste of time, money, and resources.

Clearly, this presents an interesting dilemma in highly compensated specialties like orthopaedic surgery, especially if no perceived benefit to the patient, the practice, or practitioner can be identified [7]. And, as Dandu and colleagues [2] show, only about half of the practicing orthopaedic surgeons in the United States have adopted meaningful use implementation standards.

Where Do We Need to Go?

While reassuring to find that there was not a consistent trend in “up-coding,” a practice that is facilitated electronically by being able to “just check the box,” as well as other interesting findings, the current study still leaves us wondering why the EHR remains one of the primary dissatisfiers in clinical practice and often the number one reason cited for early retirement of physicians [4, 8, 10]. And, while the financial incentives were tangible, what other more pressing or as yet unexplored motives exist that have prevented universal adoption and acceptance? This remains a vexing quandary, but one that can no longer be ignored.

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T. K. Wuest MD, MMM (✉), Slocum Center for Orthopedics and Sports Medicine, 55 Coburg Rd., Eugene, OR 97401, USA, Email: tkwuest@slocumcenter.com

T. K. Wuest, Slocum Center for Orthopedics and Sports Medicine, Eugene, OR, USA

Physician burnout has been a prominent topic in the past several years, and has prompted consideration of the “Quadruple Aim,” in which a fourth aspect, practitioner well-being, is added to the established triad of patient satisfaction, improved outcomes, and lower cost [10]. However, I would opine that the burnout question remains just that—a question—that is as-yet unanswered. And, how much has the implementation of EHRs really added to that complex matrix? It is not just age or generational computer savvy, as demonstrated in the current study. It is also related to practice size, resources, inertia, change management, work flows, depersonalization of the patient-physician interaction, among others [3]. In an attempt to “adapt” as opposed to “adopt” EHRs into practices, an entire new industry has emerged: that of the medical scribe. Why, if an EHR was meant to be a value-added resource for the practitioner and patient, does there need to be yet another participant built into the clinical encounter? Obviously, it adds to overhead expense, and I would argue that it also adds to complexity, and as such, it presents a potential source for introduction of errors into any system. Does the presence of another individual enhance, detract, distract, or improve the visit? Do we know?

We need to develop EHRs and practice tools that are better designed to deliver care and improve outcomes, rather than simply to capture appropriate coding and documentation requirements. And, if the impediment is truly the need for “clerical” skills to be able to document the encounter, then where can we or should we go [9]? Let’s get creative—should we be able to type 85 words per minute (or more) to graduate from medical school? Where can the advancements in voice-recognition software lead? How can current word-processing tools be improved? What

interfaces are best for clinical care? I can imagine a Bluetooth (or similar) enabled device or microphone, inconspicuously attached to the provider or embedded in the exam room, providing real-time capture, editing, and production of a complete clinical note that is HIPPA compliant, produces an accurate diagnosis and coding of the visit, submits the prior authorization for any procedure, processes the submission for payment, and can be electronically reviewed and signed by the practitioner in a timely fashion. If self-driving cars are on the cusp of becoming a reality, and spaceship booster rockets are now recycled, why can’t the above scenario be considered? Yes, the process is complex, but the fact that health care thus far has avoided making real transformation does not mean it can’t or shouldn’t.

How Do We Get There?

While difficult, especially in light of the footprint established in current EHR design and implementation, there needs to be a serious re-examination of this tool. How can we better use sophisticated system analysis, process mapping, time-based productivity activities, artificial intelligence, machine learning, or other techniques to help us understand where this tool went wrong? And, more critically, how can we get it right? This is a daunting, but important, challenge. Just as general resistance to change may have thwarted some EHR adoption efforts, we cannot let the status quo be an impediment to innovation in this sector. The authors of the current study [2] have reported that, at least for this examination, there have not been any major deviations, nefarious behavior, or tangible changes in productivity between non-adopters and adopters. If true, then the EHR may have been proven to be effectively inconsequential.

What the “disruption” may prove to be, I don’t know. But one of the realities thwarting efforts to improve upon current iterations may have been answered, in part, by the current article. That is, the return on investment for the implementation of the EHR into clinical practice has yet to be demonstrated convincingly. And, perhaps the complexity faced in the development of the “ideal” EHR presents a foreboding barrier to entry? A strong cadre of “incumbents” in the current EHR market may be stifling innovative efforts as well. Is the financial imperative to improve a physician’s work flows, practice efficiency, and productivity too insignificant to merit broad-based and substantial capital investment—especially in light of the billions of dollars of expenses, profit, and waste in other spheres of the behemoth we call “health care” in this country?

Eventually, for the EHR to become truly meaningful, there needs to be substantial redesign efforts that are influenced by practitioners, patients, design engineers, peer-led testing and experimentation, best practices, and ongoing technologic advancement. If not, we will be relegated to tolerating an established, dysfunctional, and potentially detrimental resource in the delivery of care to our patients [1, 5, 6]. We can do better—and we must.

Most certainly, in our practice lifetimes, the EHR will not be the last technological step in the evolution of care delivery. And, just as the intent for the EHR was to be a practice-enhancing tool, additional technological advances will likely be purported to be so as well. But as we have learned, the unintended consequences need to be recognized, evaluated, and corrected.

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