Configuring electronic health records to meet the needs of neurologists

A case study

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Electronic health records (EHRs) are essential to achieve the triple aim of health care: improve population health, lower per capita cost of health care, and increase patient satisfaction.¹ A landmark study showed that practices that used EHRs had better outcomes for patients with diabetes than practices that used paper charts.² A systematic review showed that computerized provider order entry reduced medication errors by 50%.³ The OpenNotes initiative, which allows patients to access the EHRs through a Web portal, is associated with higher satisfaction among patients.⁴

But what about physician satisfaction? So far, that has been a missing perspective, and some have proposed adding it to the triple aim to form the quadruple aim.⁵ A 2013 RAND report on physician satisfaction stated that EHRs played a major role in reducing satisfaction because of “poor usability, time-consuming data entry, interference with face-to-face patient care, inefficient and less fulfilling work content, inability to exchange health information, and degradation of clinical documentation.”⁶ Although large-scale surveys of neurologists about their satisfaction with EHRs do not exist, if anything, we expect their impressions to be even worse. In neurology, the key portion of the progress note is the history, and that portion is not easily facilitated by a template.

In this issue of *Neurology® Clinical Practice*, Maraganore et al.⁷ report on how they configured their EHR to meet the needs of neurologists within an academic department. Their efforts are noteworthy and deserve our attention. The key to their success is not the technical capabilities of the EHR. The key is that the team first formed a clear vision of what they wanted to do and then were able to articulate goals for the EHR to fulfill. Such goals include standardization of care, recruiting patients for a genetics research study, and collecting outcomes for cohort analysis. Importantly, even prior to implementation of their EHR, they had already secured sufficient staffing ratios to collect comprehensive outcomes.

The importance of fit between a practice and its EHR cannot be emphasized enough. A Medscape survey among physicians showed that the Veterans Administration (VA)’s EHR was the top rated.⁸ However, that does not mean that it is the best EHR for all settings. The VA health care system is an integrated health care system with internal pharmacies and providers. If one were to use the VA’s EHR outside the VA, one would find major gaps in its capabilities: it doesn’t perform electronic prescribing to outside pharmacies and it doesn’t easily generate a letter for outside providers. In other words, the VA EHR is highly rated because it is heavily configured for the goals of the VA; after all, the VA built it.

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The major issue facing neurology practices is that they need to reset their goals in response to the changing landscape of health care reform. In a world of volume-based reimbursement, the goal of the EHR is to accelerate throughput of patients. In the emerging world of value-based reimbursement, the goals of the practice need to change, and the EHR has to fulfill those new goals. Can the EHR identify patients who have been recently admitted and therefore are at high risk for readmission? Can it suggest relevant hierarchical condition category diagnosis codes to accurately reflect a patient's comorbidity status? Can it show costs of care for different algorithms of diagnostic testing and treatment? Can clinical decision support be used to reduce the occurrence of ineffective care?

The lesson from this article is that given enough time and effort, it is truly possible to configure an EHR to do exactly what you want to do. In that light, the EHR is just a tool. Figuring out exactly what you want it to do has always been and will always be the more difficult task.

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