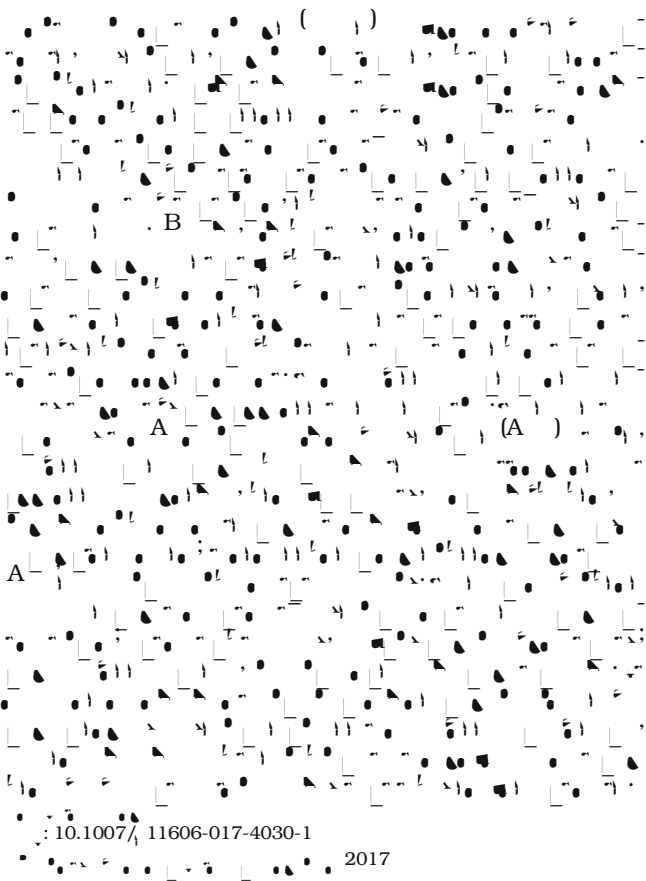


# Ethical Implications of the Electronic Health Record: In the Service of the Patient

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listening to the patient's heart and lungs, it had consequences.<sup>1</sup> Many physicians thought the innovation would be a detriment to care. This led to a reexamination of ways to sustain the patient-physician relationship, and the subsequent integration of the technology with other forms of therapeutic touch, conversation, and communication.

Today, technologies that aid the delivery of care are ubiquitous. EHRs have demonstrated value in features such as legible information, accurate prescriptions, remote access to information, and prevention reminders. Many patients use portals to check information and communicate with physicians.<sup>2</sup> But EHRs also bring unintended consequences.<sup>3</sup>

The primary goal of EHR-generated documentation should be concise, history-rich notes, and technology should support care goals in the most efficient manner possible without losing the humanistic elements of the record that support ongoing relationships....<sup>4</sup> Computers are tools. They do not fundamentally alter the goals of medicine or the ethical responsibilities of the profession.

EHR development, however, has focused not on capturing the patient's story and physician's thought processes and care plans, but on billing, administrative, and regulatory elements.<sup>4,6</sup> Documentation requirements have led to checkbox and drop-down menu shortcuts; repetitive and sometimes inaccurate information is perpetuated.<sup>7</sup> While some functions can enhance the speed and structure of documentation, unreasonable requirements can impose their own burdens.

Although policy bodies have recognized the potential for health information technology (HIT) to improve care, they have also cautioned that HIT does not effectively support the diagnostic process and may contribute to errors.<sup>8</sup> For example, challenges include problems with usability, poor integration into clinical workflow, difficulty sharing a patient's health information, and a limited ability to support clinical reasoning and identification of diagnostic errors in clinical practice.<sup>8</sup> These challenges give rise to ethical concerns that are not just the problem of HIT professionals, and must be addressed by the medical profession. The adoption of EHRs causes significant changes in the day-to-day experience of those practicing medicine... To realize the promise of EHRs, more work is needed.<sup>9</sup>

## INTRODUCTION

Disruptive innovations are a double-edged sword, bringing both opportunity and risk. The electronic health record (EHR), for example, simultaneously facilitates and complicates the delivery of health care.

When Laennec introduced the stethoscope in 1816, disrupting the tradition of direct (skin-to-skin) contact in

1. *JAMA*. 2016;316:11-12.  
2. *JAMA*. 2017;317:11-12.  
3. *JAMA*. 2017;317:11-12.

Moving forward, we would do well to remember the words of T.S. Eliot: "Where is the wisdom we have lost in knowledge? Where is the knowledge we have lost in information?"<sup>10</sup>

POSITION 1: EHRs AND COMPUTER USE SHOULD FACILITATE PATIENT CARE, SUPPORT PHYSICIAN ETHICAL DUTIES, AND SUPPORT THE PATIENT-PHYSICIAN RELATIONSHIP

### Patient-Physician Relationships

It seems obvious that patient care should center on interaction with the patient. The design and use of EHRs can facilitate

POSITION 2: EHR USE SHOULD ASSIST AND ENHANCE CLINICAL REASONING AND THE DEVELOPMENT OF COGNITIVE AND DIAGNOSTIC SKILLS. FEATURES SUCH AS COPY-AND-PASTE SHOULD BE EMPLOYED JUDICIOUS-

### POSITION 3: PRIVACY AND CONFIDENTIALITY MUST BE MAINTAINED IN EHR USE. EHR INFORMATION RETRIEVAL, EXCHANGE, AND REMOTE ACCESS CAN IMPROVE CARE, BUT ALSO CREATE THE RISK OF UNAUTHORIZED DISCLOSURE AND USE OF PROTECTED HEALTH INFORMATION

#### Patient Privacy/Confidentiality

Instant retrieval and information exchange through EHRs improve care, but also create the risk of unauthorized use, access, and disclosure of private patient information, raising confidentiality and privacy concerns. Unauthorized access could also have implications for patient family members if genetic information is involved.

Respect for patient autonomy requires that patient encounters and information are kept confidential and private, fostering trust and improving communication.<sup>12</sup> Otherwise, patients might not disclose important information or may avoid seeking care, fearing denial of insurance, loss of employment, or stigmatization. While this is also true of paper records, concerns are heightened with EHRs because information is so readily transmitted and system breaches are not uncommon, despite security measures. Breaches may occur accidentally, through cyber attacks, or due to lapses in professional conduct, such as searching for test results of a family member or celebrity. All of this is easier to accomplish and track electronically.

#### Access to Information

As a matter of law and ethics, patients have a right to the information in their medical records.<sup>12</sup> EHRs can increase participation and engagement in health care through patient access,<sup>41</sup> empowerment, and improved communication.<sup>42</sup> However, patients may not be aware that they can access their records.<sup>43</sup> ACP supports direct patient access to test results but cautions that patients should discuss results with their physicians.<sup>44</sup>

OpenNotes<sup>®</sup> is an initiative designed to give patients direct access to their full records, which ACP supports. OpenNotes may be a powerful tool for improving patient health and engagement<sup>4, 42</sup> and the accuracy of information. Opportunities for transparency and patient education through technology are welcome developments.

Patients and physicians report positive experiences using OpenNotes.<sup>42</sup> The knowledge that a patient may read a note may improve documentation. But full access can also challenge the physician's ability to write candid notes, especially regarding sensitive information (e.g., about mental health, substance abuse, sexual behavior, or appearance). Would a physician obscure information or a diagnosis, knowing that the patient could access the note? Construct notes with patient satisfaction surveys in

mind? More consideration of these issues is needed.

#### The Digital Divide

Patient access to electronic information presents opportunities to meld the "digital culture" with personal responsibility for health.<sup>41</sup> Ironically, patients who might benefit most from digital access may be least likely to have it.thih69000cr



## REFERENCES