

3.3.3 Breach of Security in Electronic Medical Records

When used with appropriate attention to security, electronic medical records (EMRs) promise numerous benefits for quality clinical care and health-related research. However, when a security breach occurs, patients may face physical, emotional, and dignitary harms.

Dedication to upholding trust in the patient-physician relationship, to preventing harms to patients, and to respecting patients' privacy and autonomy create responsibilities for individual physicians, medical practices, and health care institutions when patient information is inappropriately disclosed.

The degree to which an individual physician has an ethical responsibility to address inappropriate disclosure depends in part on his or her awareness of the breach, relationship to the patient(s) affected, administrative authority with respect to the records, and authority to act on behalf of the practice or institution.

When there is reason to believe that patients' confidentiality has been compromised by a breach of the electronic medical record, physicians should:

- (a) Ensure that patients are promptly informed about the breach and potential for harm, either by disclosing directly (when the physician has administrative responsibility for the EMR), participating in efforts by the practice or health care institution to disclose, or ensuring that the practice or institution takes appropriate action to disclose.
- (b) Follow all applicable state and federal laws regarding disclosure.

Physicians have a responsibility to follow ethically appropriate procedures for disclosure, which should at minimum include:

- (c) Carrying out the disclosure confidentially and within a time frame that provides patients ample opportunity to take steps to minimize potential adverse consequences.
- (d) Describing what information was breached; how the breach happened; what the consequences may be; what corrective actions have been taken by the physician, practice, or institution; and what steps patients themselves might take to minimize adverse consequences.
- (e) Supporting responses to security breaches that place the interests of patients above those of the physician, medical practice, or institution.
- (f) Providing information to patients to enable them to mitigate potential adverse consequences of inappropriate disclosure of their personal health information to the extent possible.

AMA Principles of Medical Ethics: IV, VIII

Background report(s):

CEJA Report 3-A-16 Modernized *Code of Medical Ethics*

CEJA Report 3-A -09 A physician's role following a breach of electronic health information

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When there is reason to believe that patients' confidentiality has been compromised by a breach of the electronic medical record, physicians should: [new content clarifies context of guidance]

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REPORT OF THE COUNCIL ON ETHICAL AND JUDICIAL AFFAIRS*

CEJA Report 3-A-09

Subject: A Physician's Role Following a Breach of Electronic Health Information

Presented by: Regina M. Benjamin, MD, Chair

Referred to: Reference Committee on Amendments to Constitution and Bylaws
(Daniel W. Van Heeckeren, MD, Chair)

1 Adopted Resolution 9 (A-08) asked our American Medical Association (AMA) to study the
2 physician's role in informing a patient when the physician has reason to believe the individual's
3 protected health information has been inappropriately disclosed. A physician's obligation to respect
4 confidentiality and guard a patient's privacy is a well-established principle of professional ethics
5 that dates back to the Hippocratic Oath.¹ The AMA's Code of Medical Ethics, in Opinion E-5.07,
6 "Confidentiality: Computers," (AMA Policy Database) sets out precautionary steps to protect the
7 confidentiality of electronically stored health information.² However, current policy does not
8 address physicians' ethical responsibilities in the event the security of electronic records is
9 breached and patient data are inappropriately accessed. This report examines physicians'
10 professional ethical responsibility in this area.

11
12 ELECTRONIC MEDICAL RECORDS (EMR)

13
14 Health information is "central to the practice of medicine and the quality of health care."³ The
15 capacity of electronic medical records (EMRs, also referred to as "electronic health records,"
16 EHRs) to store, access, and transmit detailed patient information accurately and rapidly among
17 physicians and other health care professionals, health care administrators, and payers can greatly
18 enhance patient care and the efficiency of the health care system overall. At the level of individual
19 patient care, EMRs can support functions that are impossible or cumbersome to implement in paper
20 record systems, including clinical reminders, drug interaction alerts, physician order entry systems,
21 and decision support tools.^{4,5} At the level of the health care system, EMRs can facilitate
22 administrative operations as well as enable access to population-level data for quality
23 improvement, public health, and research purposes.^{6,7}

24
25 Physicians in the U.S. have been adopting EMRs in greater numbers in recent years. In a 2008
26 survey, 38.4% of physicians reported using fully or partially functional EMR systems, not
27 including billing records, in their office-based practices.⁸ These numbers represent a significant
28 increase from 2001, when 18.2% of physicians reported using EMRs in their office-based
29 practices.^{9,10} However, the collection, storage, and management of health information in the U.S. is
30 carried out by numerous, diverse public and private institutions. The flow of medical information
31 from patient to health care provider to health insurance industry and beyond is conducted with
32 limited regulation and oversight. Existing data security laws and agencies have been characterized
33 as a "confusing, sometimes conflicting, patchwork" of policies.⁴ The combination of these factors

* Reports of the Council on Ethical and Judicial Affairs are assigned to the reference committee on Amendments to Constitution and Bylaws. They may be adopted, not adopted, or referred. A report may not be amended, except to clarify the meaning of the report and only with the concurrence of the Council.

1 may be contributing to breaches of EMRs. Physicians need guidance about their responsibilities
2 when the confidentiality of patients' electronic personal health information has been
3 compromised.¹¹

4 5 SECURITY BREACHES AND HARM TO PATIENTS

6
7 Recent developments have significantly increased the potential harms that can result when EMR
8 systems are breached. For one, there has been a trend in recent years to gather and record more
9 detailed information in medical records.¹² For another, the range of uses to which EMR systems are
10 put have expanded. The aggregated nature of EMRs facilitates secondary use indirectly related to
11 patient care, such as clinical research; quality measurement, reporting, and improvement; public
12 health; marketing; and managed care decision-making.^{7, 13}

13
14 The potential for harm from a security breach may depend on several factors, including the intent
15 of the perpetrators of the breach, nature of the information that was breached, and to whom the
16 information was disseminated. Still, the detailed and complex patterns of collecting and using
17 patient information in today's health care environment mean that the risk of harm to patients from
18 security breaches is higher than ever before. One profound harm may be medical identity theft, the
19 fastest growing form of identity theft.^{14, 15} Medical identity theft can result not only in
20 inconvenience, discrimination, or negative effects on a victim's credit rating, but can pose harms
21 specifically related to health care in the form of improper exhaustion of insurance benefits,
22 wrongful billing for the costs of the thief's health care, and the burden of proving that the victim
23 isn't responsible for such charges and can adversely affect insurability. Of particular concern are
24 the potential adverse effects of such theft on a victim's subsequent health care, notably
25 inappropriate care based on erroneous entries in his or her record.^{3, 15}

26
27 Beyond this sort of material harm that may follow from inappropriate disclosure of a patient's
28 personal health information are the dignitary harms that result. The commitment to benefit the
29 patient is a basic tenet of a physician's professional ethic.¹⁶⁻¹⁸ Effective healing cannot take place
30 without a patient-physician relationship that rests on the physician's competence, skills, and good
31 will.¹⁹ The healing encounter is one in which the physician claims the necessary expertise and
32 dedication to help and (implicitly) invites the vulnerable patient's trust.²⁰ The physician is
33 accountable to his or her patients in this relationship of fidelity in trust.²¹ Trust is fragile in today's
34 health care system as patients increasingly question physicians' loyalty in the face of physicians'
35 competing commitments to the interests of managed care plans, jobs, or incomes.¹⁹

36
37 The commitment to benefit patients also entails respecting a patient's freedom to act in accord with
38 his or her values and sense of self.¹ Inappropriate disclosure of a patient's personal information
39 violates his or her right to (informational) privacy, a fundamental expression of autonomy.

40 41 LEGAL ENVIRONMENT

42
43 Currently, 44 states require companies doing business in their state to advise residents when the
44 residents' information may have been compromised.¹⁵ These laws were intended to make victims
45 of a data breach aware of the increased danger of identity theft so that they could take action to
46 protect themselves. Many medical records, e.g., those that contain a patient's name and social
47 security number, could fall under such state statutes. California recently broadened its notification
48 law to explicitly apply to medical or health insurance-related information.²²

49
50 Until recently, federal law unfortunately provided little specific guidance for how privacy interests
51 in identifiable health information are protected in the event of a breach. While the Health Insurance

1 Portability and Accountability Act (HIPAA) established national standards for privacy and security
2 designed to protect the confidentiality and integrity of electronic personal health information, it
3 does not advise physicians or administrators how to respond in the event of an actual security
4 breach.²³

5
6 However, disclosure is now required by the newly enacted American Recovery and Reinvestment
7 Act of 2009 (ARRA). The portion of the act devoted to health information technology, known as
8 the Health Information Technology for Economic and Clinical Health Act of 2009 (HITECH Act),
9 strengthens existing federal privacy and security provisions and mandates that a health care
10 provider notify data subjects when the provider knows or has reason to believe the individuals'
11 information has been inappropriately disclosed.²⁴ The law provides detailed guidance on what is
12 considered a "breach," outlines appropriate methods of notification, and specifies the content
13 which must be included in the notice to the extent possible.²⁴ Wherever ARRA contains stricter
14 health-related privacy and security measures than state law, this federal law takes precedence.
15 ARRA also requires HHS to issue regulations on breach notification requirements by August 16,
16 2009.

17 18 IMPLICATIONS FOR ETHICAL PRACTICE

19
20 Helping to restore a sense of control over health records to the patient is of great moral import.
21 Indeed, studies consistently show that patients prefer to be informed of breaches of their health
22 records or other medical errors.²⁵ Voluntarily disclosing to a patient that his or her information has
23 (or may have) been inappropriately disclosed when the patient may otherwise be unaware of the
24 breach respects the patient's dignity and supports his or her right to take appropriate steps to avert
25 or minimize potential harms. Beyond fulfilling the physician's obligation to be candid with
26 patients, disclosing the incident and taking time to discuss possible harms and potential means of
27 averting them may enhance trust. Conversely, the lack of disclosure may erode trust, especially if it
28 leads to harm.

29
30 The patient safety movement has made it clear how difficult it can be for health care professionals
31 to take responsibility for an event that has created a significant risk of harm or has caused harm.
32 Like being candid with a patient about a medical error, being candid with a patient when his or her
33 information has been inappropriately disclosed may be difficult or uncomfortable. However, this
34 does not change the fact that it is the ethically appropriate response.

35
36 The material cost of adequately responding to a breach of security can be significant in terms of
37 actual costs associated with the loss of patients, recruitment of new patients, and damage to the
38 reputation of the physician, practice or institution. However, evidence has shown that litigation
39 rates and related costs decrease when errors are promptly disclosed to patients and families.²⁶⁻²⁸
40 It is also important to keep in mind that security measures and breach notice requirements
41 should be practical and affordable so as to not hinder the ability of physicians to operate
42 their practices and care for their patients.

43
44 The emotional toll on physicians relaying bad news can be burdensome, particularly given the
45 value the profession places on confidence, authority, and "perfection." Unfortunately, in some
46 institutions a culture of silence impedes admitting error or implicating colleagues. Yet evidence
47 suggests that disclosure may alleviate some of the burdens associated with knowing about a
48 situation that might cause harm to patients.²⁹ Institutional efforts to support candor and
49 transparency may not only help alleviate emotional discomfort, but also help prevent similar errors
50 in the future by raising awareness and increasing caution. More importantly, the commitment to

1 uphold trust in the patient-physician relationship, to prevent harms to patients, and to respect
2 patient autonomy form a compelling basis for a physician’s involvement in efforts to promptly
3 disclose security breaches that pose a risk of harm. This commitment also supports an obligation to
4 assist patients to minimize potential adverse consequences of disclosure of personal health
5 information—for example, sharing information on steps individuals should take to protect
6 themselves from potential harm resulting from the breach such as using credit monitoring services,
7 an identity theft hotline or other services.

8
9 A physician’s responsibility to notify patients of an inappropriate disclosure and to take steps to
10 help mitigate potential adverse consequences is not without limit.³⁰ A physician’s ability to act may
11 be limited by several factors, including what relationship the physician has with the affected patient
12 or what his or her administrative authority is. A physician who is not in a position to have personal
13 knowledge that a breach has occurred or take effective action to prevent breaches—for example,
14 who works in a large health care institution whose EMR system is managed by others—has
15 relatively limited responsibilities. In such circumstances, physicians might join others in the
16 institution to make sure that the institution takes appropriate action. Physicians in solo or small
17 group practices or those who are institutionally responsible for ensuring the security and integrity
18 of electronic health information have a more immediate responsibility, both to ensure the security
19 of their EMRs and to notify patients when information has been inappropriately disclosed.

20
21 Whatever the nature of the physician’s involvement, in dealing with inappropriate disclosure of
22 patient information the physician should place the interests of affected patients above the interests
23 of their practices or institutions. The commitment to affected patients should be tempered only by
24 potential harms of equal magnitude to other patients. Such patient advocacy may take courage, but
25 courage is implicit within a physicians’ dedication to the well-being of their patients and their
26 commitment to being trustworthy.²¹

27
28 Disclosure of a breach should occur as soon as practicable and in accordance with statutory
29 timelines after the breach is known and should be carried out in a way that minimizes patients’
30 distress and respectfully restores their control over their own privacy. Like relaying other “bad
31 news,” disclosing a breach in health records should generally occur in a setting conducive to
32 discussion. A private place and adequate time may need to be set aside for this purpose.²⁹

33
34 At minimum, the discussions should include a thorough explanation of what information was or
35 might have been disclosed and how the breach happened, its potential negative consequences, the
36 corrective actions that have been and will be taken by the institution or practice, and the steps that
37 patients themselves could take to mitigate potential harm. The physician making the disclosure
38 should communicate regret and avoid behaving defensively.

39
40 These suggestions are not intended to be comprehensive. They define a starting point from which
41 to develop appropriate responses in light of the particular circumstances of a given breach and
42 medicine’s fundamental ethical obligations to patients whose personal health information is
43 inappropriately disclosed.

44 RECOMMENDATION

45
46
47 The Council on Ethical and Judicial Affairs recommends that the following be adopted and the
48 remainder of the report be filed:

1 When used with appropriate attention to security, electronic medical records (EMRs) promise
2 numerous benefits for quality clinical care and health-related research. However, when a
3 security breach occurs, patients may face physical, emotional, and dignitary harms.

4
5 Dedication to upholding trust in the patient-physician relationship, to preventing harms to
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11 records, and authority to act on behalf of the practice or institution.

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13 When there is reason to believe that patients' confidentiality has been compromised by a
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16 (1) Ensure that patients are promptly informed about the breach and potential for harm,
17 either by disclosing directly (when the physician has administrative responsibility for
18 the EMR), participating in efforts by the practice or health care institution to disclose,
19 or ensuring that the practice or institution takes appropriate action to disclose.
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21 (2) Follow ethically appropriate procedures for disclosure, which should at minimum
22 include:
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24 (a) carrying out the disclosure confidentially and within a time frame that provides
25 patients ample opportunity to take steps to minimize potential adverse
26 consequences; and
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28 (b) describing what information was breached; how the breach happened; what the
29 consequences may be; what corrective actions have been taken by the physician,
30 practice, or institution; and what steps patients themselves might take to minimize
31 adverse consequences.
32
33 (3) Support responses to security breaches that place the interests of patients above those
34 of the physician, medical practice, or institution.
35
36 (4) To the extent possible, provide information to patients to enable them to mitigate
37 potential adverse consequences of inappropriate disclosure of their personal health
38 information, such as credit monitoring services or identity theft hotline.

39
40 (New HOD/CEJA Policy)

Fiscal Note: Staff cost estimated at less than \$500 to implement.

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