

THE CHANGING NATURE OF MEDICAL RECORDS IN THE 21st CENTURY



SAMUEL D. HODGE, JR. is an award-winning lecturer, author, and Adjunct Professor of Law at Temple University Beasley School of Law where he has taught law, anatomy, and forensics for over 48 years. He is also a member of the Dispute Resolution Institute in Philadelphia where he serves as a mediator and neutral arbitrator. He has authored more than 700 publications and 10 books.

The practice of medicine has undergone a metamorphosis that has materially changed “the increasing gap between what doctors have traditionally been trained to do and the realities of modern clinical practice.”¹ This article will examine these developments and offer guidance about the recent laws involving the access of a patient’s medical chart and the nuances of electronic medical records.

THE PATIENT’S CHART

The medical chart is an essential component of a patient’s care and the determination of any medico-legal disputes.² This documentation sets forth the history of medical care rendered so that all health care providers “can continue to provide the best possible treatment for each individual.”³ A properly detailed record will help the health care provider in recreating what happened at those earlier visits.⁴ A medical record is also maintained to satisfy the different legal and ethical mandates required by the governments, regulatory agencies, accrediting bodies, and hospital administrations.⁵

Electronic Medical Records

Historically, a patient’s chart was kept in a paper format located in the health care provider’s office or a medical records department at a hospital.⁶ Paper records do not require extensive training to maintain and can be customized by each health care provider.⁷ In practice, these charts were often unwieldy, disorganized, unreadable, and had no backup system.⁸

Medicine underwent a tumult in 2009 with the enactment of the Health Information Technology for Economic and Clinical Health Act (HITECH).⁹ This law required the meaningful transition of the patient’s chart to an electronic format by January 1, 2014, for health care providers to stay qualified to obtain Medicaid and Medicare reimbursement.¹⁰ The impetus for this change was to “improve quality, safety, efficiency, and reduce health disparities, engage patients and family, improve care coordination, and population and public health [and to] maintain privacy and security of patient health information.”¹¹

An electronic medical record (EMR) is a digital adoption of the paper chart containing “a patient’s medical health information” including “sensitive and protected data such as a person’s medical past, medications, and test reports that only approved personnel can retrieve.”¹² While a paper chart cannot be immediately shared with others, EMRs permit third parties to see patient medical records at any time.¹³ The EMR also promotes efficiency, improves treatment, and allows for self-directed care and home supervision.¹⁴ Presently, about 90 percent of office-based physicians employ EMR systems.¹⁵ Nevertheless, various EMR obstacles can retard the health care providers’ capacity to concentrate on patient care, hinder communication, and harm the patient-doctor relationship.¹⁶

Obtaining Medical Records—HIPAA

The Health Insurance Portability and Accountability Act of 1996 (HIPAA)¹⁷ required the creation of

national standards to protect patient health data from being disclosed without the person's consent or knowledge.¹⁸ The law also gives patients the ability to review and secure a copy of their chart and demand corrections to their medical records.¹⁹ Accordingly, the US Department of Health and Human Services (HHS) promulgated a HIPAA Privacy Rule (Rule) to enforce the mandates of the legislation.²⁰ This Rule sets forth the standards for the use and disclosure of a person's *protected health information (PHI)* by parties subject to the Rule known as "covered entities."²¹ The Rule establishes uniform standards on how covered entities, health care clearinghouses, and business associates reveal and maintain PHI to protect patients' records while providing health care services.²²

The requirements to obtain a patient's medical records will differ based upon whom the attorney represents. A patient's counsel merely has to provide a signed authorization supplied by the client that satisfies HIPAA's mandates and appropriate state laws.²³ Other counsel, however, have a much more difficult task. Health care providers may require a subpoena or court order before releasing the requested information. While a subpoena cannot be disregarded, covered entities are warned not to provide PHI without protecting a patient's privacy and confidentiality.

A key element of the statute is that a covered entity may only divulge the "minimum necessary" information to fulfill the request for medical data.²⁴ This mandate means that a covered entity must take reasonable steps to disclose "only the minimum amount of protected health information required to accomplish the intended purpose of the use, disclosure, or request."²⁵ Unfortunately, the phrase "minimum necessary" is not well-defined, thus producing confusion. This vagueness requires a covered entity to ascertain what materials to release and the efforts that should be utilized to limit the disclosure of materials.²⁶ The covered entity's decision as to what constitutes the minimum necessary information should be premised upon a reasonable justification standard and the technical skills of the covered entity and focused on privacy and security

concerns.²⁷ This means that counsel who requests "any and all records" of a patient may trigger an objection from the health care provider since this type of broad request may not identify the information in a specific and meaningful fashion.

The Chart's Organization

The EMR should contain the same information as the paper chart, including diverse sections that set forth the relevant facts gleaned from patient encounters and telephone calls.²⁸ However, some parts will be combined, repeated, or not printed out.²⁹ The printed account of the EMR will not be the same as what is shown on the computer screen, and the layout of the records may differ premised upon the doctor's specialty and software used.³⁰

Many record-keeping schemes are created for a particular health care provider, and each has an idiosyncratic operator interface for producing a medical record.³¹ This diversity makes it problematic for counsel to gain a comfort level when analyzing a digital chart. An electronic record copying system may also vary based upon the needs of a department or medical specialty.³² For example, radiology may use different software than other departments in the medical facility, and the staff may employ a system unlike the one used by physicians.³³

One would think that the conversion to a digital format would eliminate the need to decipher a physician's illegible handwriting. Surprisingly, that is not always the case. Not all health care providers converted to EMRs, and older medical records continue to be in a handwritten format. Physicians also write notes that are understandable only by themselves and not focused on how third parties may interpret their comments.³⁴ Needless to say, illegible notes can have weighty repercussions on a patient's health and present unfavorable medico-legal consequences.³⁵ These factors can raise risk management apprehension, accreditation issues, enlarged audit risks from public and private payers, and medical malpractice concerns.³⁶ The National Academy of Medicine has reported that doctor's unreadable notes result in about 7,000 deaths annually.³⁷

Several states have remedied this problem by passing remedial measures to fix this construct. For example, Pennsylvania has crafted a regulation that mandates a health care provider to “maintain medical records for patients which accurately, *legibly*, and completely reflect the evaluation and treatment of the patient.”³⁸

EMR CHALLENGES

EMRs have their own issues, including privacy and security concerns.³⁹ Approximately 150 people will have access to a patient’s chart during a hospitalization.⁴⁰ While most of these reviewers are approved to read the record as a part of the patient’s care, “there is a paucity of laws that regulate who these people are, what information they may access, and what they are able to do and not do with the patient’s information once they have viewed it.”⁴¹ The chart is also susceptible to security breaches by unsanctioned people with improper purposes despite the safeguards required by HIPAA.⁴²

Additionally, the systems lack the ability to produce the record easily and routinely when needed according to a reliable “network without political, technical, or financial blocking.”⁴³ Physicians complain about unwieldy interfaces and timewasting data entry.⁴⁴ Some tasks, such as decreasing the amount of a steroid, are remarkably demanding. For example, in an evaluation of two EMR systems conducted by the American Medical Association, physicians had to manually estimate the taper amounts, which took about two to three minutes and required 20 to 42 mouse clicks.⁴⁵

Failure to Convert the Paper Chart into an Electronic Format

Obtaining the traditional medical chart was accomplished in a relatively straightforward way by making a photocopy of the chart. Changes and comments were effortlessly exposed from scratch-outs, and discovery was uncomplicated.⁴⁶ Procuring EMRs, however, generates unique problems not encountered with the paper record.⁴⁷ Logically, one would assume the EMR to be identical to a patient’s paper chart. However, that is not always the case. Some

parts of the digital record will be combined, and other elements will not be printed.⁴⁸ Surprisingly, the patient’s paper chart may never have been converted to an electronic format, and some of the previous files may be absent. Counsel, when requesting the chart, would be well served to demand that all paper records and electronic files be produced.⁴⁹

The attorney should also request the “private health information (PHI) disclosure log.”⁵⁰ This is a HIPAA-required listing of where, when, what, and to whom a medical record has been provided.⁵¹ This record will help counsel in ascertaining which healthcare providers and lawyers have accessed the chart.⁵²

Metadata

Counsel needs to be aware of the metadata in a patient’s digital chart.⁵³ This term refers to “‘secondary information,’ not apparent on the face of the document ‘that describes an electronic document’s characteristics, origins, and usage.’”⁵⁴ Metadata includes information that enumerates the features, origins, handling, and authenticity of electronic evidence⁵⁵ such as audit trails, pop-up warnings, and “preliminary questions and checkboxes.”⁵⁶ This metadata may not be included in a computer print-out of the digital file.⁵⁷ This omitted data may be key to counsel’s investigation of a claim, so comprehension of what metadata divulges is valuable.

A digital record may be altered without providing any indication that it has been changed.⁵⁸ HIPAA requires all those who use a computerized medical record system to keep an audit trail cataloging all electronic entries and every access to the record.⁵⁹ For example, an audit trail offers a listing of who has opened a file, when that access occurred, and what actions were performed.⁶⁰ Therefore, the audit trail is important to review if there is any indication that a chart may have been altered. However, it is not generally supplied when a patient’s file is demanded since it is not considered a “patient record.”⁶¹ Rather, the attorney must request it, and the reasonableness of the request, if challenged, can be reviewed by the court based upon a showing of good cause.⁶²

An audit trail cannot reveal how a record was changed or what the record noted before any alteration. However, without the production of this document, the medical record can be altered with “impunity.”⁶³ These modifications may or may not demonstrate an intentional distortion of a medical record, but it is impossible to know without an audit log to authenticate any changes.⁶⁴

Pop-up screens or alerts are another form of meta-data designed to help physicians with tasks such as medication dosing and drug incompatibility.⁶⁵ These warnings are offered to foster improved patient care, eradicate errors and unfavorable consequences, and increase efficiency.⁶⁶ For instance, a drug alert can apprise a physician of an adverse interaction with another medication the patient is using before the new drug is issued.⁶⁷

Research shows that doctors often disregard these warnings because of alert fatigue.⁶⁸ Pop-up alerts are also fallible. Research shows that they fail to identify up to 33 percent of medication errors.⁶⁹

If a medication error or adverse event is present, counsel should ascertain what pop-up alerts were employed with a specific software system and demand a printout of what prompts were offered and whether they were assessed or overlooked by the health care provider.⁷⁰

Copy and Paste Function

EMRs have changed how patient information is recorded. These software systems have established methods for documenting a patient’s illness, including a “copy and paste” function.⁷¹ Counsel who has examined an EMR will often reread the same material because it has been copied multiple times in the produced record. More alarming is the abuse of the copy and paste function. Physicians frequently copy and paste data from a prior note into the medical record.⁷² Healthcare providers view this practice as helpful and efficient. Nevertheless, the copy and paste function can cause repetitive, incorrect, or incomprehensible patient record documentation.⁷³ While the copy and paste function was designed to augment the competence of clinical documentation

and allow doctors to spend more time with patients, it threatens the integrity of the medical record.⁷⁴

Fixing a Mistake in the Medical Record

Medical records do not always accurately reflect what transpired, and incorrect information can harm a patient’s interests.⁷⁵ Errors can also impact the securing of life insurance or damage a personal injury claim.⁷⁶ HIPAA offers a way to fix an error. A patient may ask a physician to correct an alleged mistake, and the provider has up to 60 days to reply. The doctor or hospital may also ask for a 30-day extension.⁷⁷ If the provider refuses to amend the record, the justification for that refusal must be provided in writing.⁷⁸

A physician may have a justification for denying the request to change the record. For example, a patient may request that indications about drug use, sexually transmitted diseases, or other sensitive materials be removed.⁷⁹ However, most health care professionals will decline to remove this type of information because it influences the patient’s care.⁸⁰ If a patient is unhappy with a physician’s response, the individual may submit an addendum that provides support with respect to an incorrect entry. The addendum provides information to clarify a situation or incident.⁸¹ A patient may also use a clarification note. This category is used to prevent an incorrect analysis of data that has been previously recorded.⁸²

RECENT CHANGES IN OBTAINING MEDICAL RECORDS

A person’s ability to secure a copy of their medical records has become much easier as the result of certain government requirements to transform paper charts into EMRs. These modifications, coupled with the demands to provide virtual access to medical data, have required health care providers to scrutinize their policies concerning patient access to their records.⁸³ The 21st Century Cures Act (Cures Act), enacted in 2016, bars “information blocking” by health care providers.⁸⁴

Information blocking refers to any routine that is “likely to interfere with, prevent, or materially

discourage access, exchange, or use of electronic health information.”⁸⁵ Patients can encounter information blocking when trying to review or secure their medical records or when sending their files to another health care provider.⁸⁶ Physicians may violate the Cures Act if they knowingly partake in actions that obstruct the interchange, availability, and utilizations of electronic health records, even if no harm occurs.⁸⁷

Nevertheless, counsel may still encounter difficulty in securing medical records, even if a HIPAA-conforming authorization is used. Some health care providers mandate that individuals “use the entity’s own supplied form, provided use of the form does not create a barrier to or unreasonably delay the individual from obtaining access” to the medical records.⁸⁸

Patient Portals

The Cures Act and its regulations offer unmatched chances for patients to secure and retrieve their health records.⁸⁹ For instance, provider websites “share clinical information with their patients” that can be accessed through patient portals.⁹⁰ However, disparities in the abilities and functionality exist with these health portals. Most allow access to specific health information and permit patients to complete specific undertakings, such as making an appointment and requesting prescriptions.⁹¹ This online capacity is reinforced by the HIPAA Privacy Rule, which provides patients with the ability to obtain copies of their medical records.⁹² Patient portals are also an easy way for counsel to secure a copy of a client’s medical records. The client can be asked to access their portals and print out their records. This information can then be forwarded to counsel.

Paying to Obtain Patient Records

A sticking point with these changes involves whether patients and their attorneys must pay a fee to obtain a copy of the medical records. Most jurisdictions have statutory fee schedules for obtaining these documents. However, the Office of Civil Rights has imposed a flat fee of \$6.50 as the reasonable cost for a patient to secure electronic medical records

from a health care provider.⁹³ If a provider wants to charge a higher fee, it must undertake a number of complicated calculations to arrive at a price that takes into consideration a schedule of expenses premised upon the average allowable labor cost to fulfill the request.⁹⁴ This calculation may not include fees related to verification, looking for and retrieving the personal health information, “recouping capital for data access, storage, or infrastructure; or other costs not listed above even if such costs are authorized by State law.”⁹⁵

The law also specifies that a patient can direct their health care provider to send the medical data to a third party designated by the individual.⁹⁶ Claimants employed this mandate to have health care providers send the records directly to their attorney. This procedure resulted in counsel for patients asserting that they only had to pay \$6.50 for the records, instead of the higher fees required by a record copy service or by state statute.

Rates Paid by Patient’s Counsel

A record copy service disputed the \$6.50 rule implemented by the United States Department of Health and Human Services (HHS) that restricted what these businesses could charge others specified by a patient for delivering medical records.⁹⁷ In *Ciox Health, LLC v. Azar*, the plaintiff maintained that the fee restrictions imposed by the “Patient Rate” were restricted to requests for records made by the patient and not those made by commercial entities, like insurance companies and law firms.⁹⁸ The court agreed with this interpretation and found in favor of the copy service.⁹⁹ This ruling resulted in the Office of Civil Rights reversing its position and finding that “the fee limitation set forth at 45 C.F.R. § 164.524(c)(4) will apply only to an individual’s request for access to their own records, and does not apply to a patient’s request to transmit records to a third party.”¹⁰⁰

Smartphone Access

On March 9, 2021, another step was imposed by the government to make it simpler for a patient to access their medical records. HHS ruled that patients may download their EMRs to a smartphone.¹⁰¹ These

records are to be provided at no expense and may be shared as the patient deems fit.¹⁰² This new mandate would imply that whether a claimant's attorney must pay more than \$6.50 to obtain medical records may be moot. The patient can merely download medical records onto a smartphone and send them to an attorney.

Lab Work and Diagnostic Tests

The days of patients anxiously waiting for a physician to notify them of test results are over. On April 5, 2021, the Cures Act implemented a rule that allows patients to obtain their labs, diagnostic tests, biopsies, genetic studies, and imaging conclusions when they are finalized even if it means they see these results before the ordering doctor.¹⁰³ This development is related to the "information blocking" prohibition of the law.¹⁰⁴

CONCLUSION

A medical chart constitutes a legal record, and various rules apply such as the mandate to record patient information, file retention, privacy considerations, and disclosure.¹⁰⁵ These documents also generate a medical and legal description of a patient's health with related rights and requirements to prohibit their unauthorized discovery.

The medical field was radically changed by the enactment of HITECH, which requires the meaningful transition of the patient's paper chart to an electronic format.¹⁰⁶ Other federal mandates provide patients with protection concerning the unwanted disclosure of their private health information, and they can easily access their records to monitor their health status. These mandates, however, seem to represent an added layer of bureaucracy in obtaining patient records, and counsel and health care providers are often at odds over the production of the medical files. This article was intended to provide some clarity concerning the various laws concerning the obtaining and paying for medical records. ▀

DRAFT

Notes

- 1 Andrew Goddard & Mumtaz Patel, The Changing Face of Medical Professionalism, and the Impact of COVID 19, 397 *Lancet* 950, 950–52 (Mar. 13, 2021).
- 2 Amit Bali, Deepika Bali, Nageshwar Iyer & Meenakshi Iyer, Management of Medical Records: Facts and Figures for Surgeons, 10 *J. Maxillofacial Oral Surgery* 199 (2011).
- 3 ‘Think with Your Ink’: 4 Reasons Why Proper Medical Record Documentation Is Vital, SCP Health (Aug. 20, 2021), <https://www.scp-health.com/blog/think-with-your-ink-4-reasons-why-proper-medical-record-documentation-is-vital>.
- 4 *Id.*
- 5 Documentation and record keeping, *Can. Med. Prot. Ass’n* (Apr. 2021), https://www.cmpa-acpm.ca/serve/docs/ela/goodpracticesguide/pages/communication/Documentation/importance_of_medical_records-e.html.
- 6 Lisa Hedges, The Pros and Cons of Paper Medical Records (According to Doctors Who Use Them), *Software Advice* (Jan. 7, 2020), <https://www.softwareadvice.com/resources/pros-cons-paper-charts>.
- 7 Advantages & Disadvantages of Paper Medical Records, True North ITG, <https://www.truenorthitg.com/pros-and-cons-paper-medical-records>.
- 8 Hedges, *supra* note 6.
- 9 Health Information Technology for Economic and Clinical Health Act, Pub. L. No. 111-5, 123 Stat. 115, 226 (Feb. 17, 2009); HITECH Act Enforcement Interim Final Rule, U.S. Dept. of Health & Human Servs., <https://www.hhs.gov/hipaa/for-professionals/special-topics/HITECH-act-enforcement-interim-final-rule>.
- 10 Federal Mandates for Healthcare: Digital Record-Keeping Requirements for Public and Private Healthcare Providers USF Health (Nov. 16, 2021), <https://www.usfhealthonline.com/resources/health-informatics/electronic-medical-records-mandate>.
- 11 *Id.*
- 12 Electronic Health Record (EHR), Capterra, <https://www.capterra.com/glossary/ehr>.
- 13 Converting from Paper to Electronic Medical Records, CIS Consulting, <https://www.cisc-llc.com/blog/electronic-medical-record-implementation#:~:text=Converting%20from%20paper%20to%20electronic%20medical%20records%20also%20increases%20efficiency,manage%20illnesses%20and%20chronic%20conditions>.
- 14 *Id.*
- 15 Electronic Medical Records/Electronic Health Records (EMRs/EHRs), Ctrs. for Disease Control & Prevention, <https://www.cdc.gov/nchs/fastats/electronic-medical-records.htm>.
- 16 Maria Alcocer Alkureishi, Wei Wei Lee, Maureen Lyons, Valerie G. Press, Sara Imam, Akua Nkansah-Amankra, Deb Werner & Vineet M. Arora, Impact of Electronic Medical Record Use on the Patient–Doctor Relationship and Communication: A Systematic Review, 31 *J. Gen. Intern. Med.* 548–60 (2016).
- 17 42 U.S.C. § 1301 et. seq.
- 18 45 C.F.R. §§ 160, 164; see also Health Insurance Portability and Accountability Act of 1996 (HIPAA), CDC Public Health Law, Pub. Health Prof. Gateway, available at <https://www.cdc.gov/phlp/php/resources/health-insurance-portability-and-accountability-act-of-1996-hipaa.html>.
- 19 Danielle Kelvas, Understanding the 5 Main HIPAA Rules, HIPAA Exams (Feb. 7, 2024), <https://www.hipaaxams.com/blog/understanding-5-main-hipaa-rules>.
- 20 45 C.F.R. §§ 160, 164.
- 21 *Id.*
- 22 Kelvas, *supra* note 19.
- 23 See Uses and Disclosures for Which an Authorization Is Required, 45 C.F.R. § 164.508, available at <https://www.govinfo.gov/content/pkg/CFR-2018-title45-vol1/pdf/CFR-2018-title45-vol1-sec164-508.pdf>.
- 24 Summary of the HIPAA Privacy Rule, U.S. Dept. of Health & Hum. Servs., <https://www.hhs.gov/hipaa/for-professionals/privacy/laws-regulations/index.html>.
- 25 *Id.*; see also 45 C.F.R. §§ 164.502(b), 164.514 (d).
- 26 Summary of the HIPAA Privacy Rule, *supra* note 24.
- 27 *Id.*
- 28 Medical Charts, Practice Fusion, <https://www.practicefusion.com/medical-charts>.
- 29 Samuel D. Hodge, Jr. & Joanne Callhoun, Understanding Medical Records in the Twenty-First Century, 22 *Barry L. Rev.* 272, 278 (2017).
- 30 Jeffrey Major, Electronic Medical Records and E-Discovery: With New Technology Come New Challenges, 5 *Hastings Sci. & Tech. L.J.* 245, 247–49 (2013).
- 31 *Id.* at 249.
- 32 *Id.*
- 33 *Id.*
- 34 Morenike Isola, The Medical Perils of Bad Handwriting, *Stethoscope Mag.* (Oct. 19, 2018), available at <https://stethoscopemagazine.org/2018/10/19/the-medical-perils-of-bad-handwriting>.
- 35 Daniel K. Sokol & Samantha Hettige, Poor Handwriting Remains A Significant Problem In Medicine, 99 *J. Royal Soc. Med.* 645–46 (2006).
- 36 Joseph J. Russo, Liability Issues Related to Illegible Physician Documentation, SCCE Net (Aug. 7, 2009), available at <https://assets.hcca-info.org/Portals/0/PDFs/Resources/library/Liability%20Illegible%20Physician%20Documentation.pdf>.
- 37 Isola, *supra* note 34.
- 38 49 Pa. Code § 16.95 (emphasis added).
- 39 Hodge & Callhoun, *supra* note 29, at 274.
- 40 *Id.* at 275.

- 41 *Id.*
- 42 Christina Rosario, 4 Problems with Electronic Health Records, *Advanced Data Sys. Corp.* (Oct. 16, 2019), <https://www.adsc.com/blog/problems-with-electronic-health-records>.
- 43 Cassandra Willyard, Can AI Fix Electronic Medical Records?, *Sci. Am.* (Feb. 2, 2020) (quoting National Academy of Medicine 2018 report), available at <https://www.scientificamerican.com/article/can-ai-fix-electronic-medical-records>.
- 44 *Id.*
- 45 *Id.*
- 46 Joseph DeAngelis, Who Guards the Guardians? Simplifying The Discovery of Electronic Medical Records, 90 *U. Colo. Law Rev.* 317, 319 (2019).
- 47 Hodge & Callhoun, *supra* note 29, at 276.
- 48 Tracey Dellacona, Uncover the Complete Electronic Medical Record, *Am. Ass'n for Justice, Trial Mag.*, May 2011, at 28, 30.
- 49 Dan J. Tennenhouse, *Attorneys Medical Deskbook*, § 2:8. Ambulance Records (4th ed., 2021).
- 50 *Id.*
- 51 *Id.*
- 52 *Id.*
- 53 J. Stanley McQuade, 1 *Med. Info. Sys. for Lawyers* § 1:18.60 (2d ed. Aug. 2021).
- 54 *Gilbert v. Highland Hosp.*, 52 *Misc. 3d* 555, 556 (N.Y. Sup. Ct. Monroe Cnty. 2016).
- 55 Mark Hansen & Tyler Pratt, Follow the Audit Trail: The Impact of Metadata in Litigation, *IADC Def. Counsel J.* (Feb. 7, 2020), available at <https://www.iadclaw.org/defensecounseljournal/follow-the-audit-trail-the-impact-of-metadata-in-litigation>.
- 56 McQuade, *supra* note 53.
- 57 See Protect Metadata When Disclosing Information from Electronic Health Information, *Relia Media* (Aug. 1, 2019), <https://www.reliasmedia.com/articles/144826-protect-metadata-when-disclosing-information-from-electronic-health-records>.
- 58 Hodge & Callhoun, *supra* note 29, at 190.
- 59 45 C.F.R. § 164.3165.
- 60 Jennifer Rush, Health Record Audit Trails: How Useful Is the Metadata That Is Associated with a Patient's Health Record?, Norman Hanson Detroy, Norman Hanson DeTroy, <https://www.nhdlaw.com/health-record-audit-trails-useful-metadata-associated-patients-health-record>.
- 61 *Id.*
- 62 *Id.*
- 63 Christine Antonellis Norton & Mike D'Amico, The Electronic Medical Record, Audit Logs and Revision History, D'Amico and Pettinicchi, LLC (Nov. 14, 2014), <https://damicopettinicchi.com/articles/the-electronic-medical-record-audit-logs-and-revision-history>.
- 64 *Id.*
- 65 Hodge & Callhoun, *supra* note 29, at 286.
- 66 The Hidden Dangers of EHR Pop-Up Fatigue, *Am. Med. Ass'n* (Apr. 20, 2015), available at <https://www.ama-assn.org/practice-management/digital/hidden-dangers-ehr-pop-fatigue>.
- 67 Judith Dexheimer, et al., The Effects of Medication Alerts on Prescriber Response in a Pediatric Hospital, 8 *Appl. Clinic Info.* 491–501 (2017).
- 68 Shefali Luthra, Screen Flashes and Pop-Up Reminders: "Alert Fatigue" Spreads Through Medicine, *HealthCare IT News* (June 15, 2016), <https://www.healthcareitnews.com/news/screen-flashes-and-pop-reminders-alert-fatigue-spreads-through-medicine>.
- 69 Christopher Jason, The Pros and Cons of EHR Clinical Decision Support Alerts, *EHR Intelligence* (Apr. 16, 2021), <https://ehrintelligence.com/news/the-pros-and-cons-of-ehr-clinical-decision-support-alerts>.
- 70 Hodge & Callhoun, *supra* note 29, at 286.
- 71 Appropriate Use of the Copy and Paste Functionality in Electronic Health Records, *Am. Health Info. Mgmt. Ass'n*, <https://bok.ahima.org/PdfView?oid=300306>.
- 72 Christine Kane, John D. Balaguer & Neil Skolnik, Copy and Paste at Your Own Risk: The Dangers of Electronic "Plagiarism," *GI & Hepatology News* (Apr. 8, 2014), available at <https://www.mdedge.com/gihepnews/article/81527/practice-management/copy-and-paste-your-own-risk-dangers-electronic>.
- 73 *Id.*
- 74 Julie Clements, How to Use the EHR Copy-Paste Function Safely, *MOS Transcription Servs.* (May 20, 2021), <https://www.medicaltranscriptionservicecompany.com/blog/how-to-use-ehr-copy-paste-function-safely>.
- 75 Correcting Errors in Medical Records Could Save Your Life, Baker and Gilchrist, <https://www.bakerandgilchrist.com/blog/correcting-errors-in-medical-records-could-save-your-life>.
- 76 Jim Sliney, Jr., How to Demand Accurate Medical Records, *Patients Rising* (June 25, 2018), <https://www.patientsrising.org/amendment-to-medical-records>.
- 77 Cheryl Clark, Patients Can Get Medical Record Errors Amended, but It's Not Easy, *MedPage Today* (Sept. 15, 2021), <https://www.medpagetoday.com/special-reports/exclusives/94502>.
- 78 *Id.*
- 79 Trisha Torrey, How to Correct Errors in Your Medical Records, *VeryWellHealth* (Feb. 23, 2020), <https://www.verywellhealth.com/how-to-correct-medical-record-errors-2615506>.
- 80 *Id.*
- 81 *Id.*
- 82 *Id.*
- 83 Link Patient Records and Improve Interoperability, *LexID for Healthcare*, https://risk.lexisnexis.com/products/lexid-for-healthcare?trmid=HCCRM22.GA.SearchAds.PHGO-568909&gclid=Cj0KCQjw2MWVBhCQARIsAljbowPtUDJAwMSn4gUgNk0brx-5-MbMW0ieOifkpnviu93SleXzhfiSi-l4aAhPXALw_wcB.
- 84 42 U.S.C. § 201.

- 85 Alexander Dworkowitz, Provider Obligations for Patient Portals Under the 21st Century Cures Act, *Health Affs. Forefront* (May 16, 2022), <https://www.healthaffairs.org/doi/10.1377/forefront.20220513.923426>.
- 86 What Is Information Blocking, *Am. Med. Ass'n*, available at <https://www.ama-assn.org/system/files/2021-01/information-blocking-part-1.pdf>.
- 87 *Id.*
- 88 Individuals' Right Under HIPAA to Access Their Health Information, 45 C.F.R. § 164.524, <https://www.hhs.gov/hipaa/for-professionals/privacy/guidance/access/index.html>.
- 89 Heather Landi, Why Experts Say the Information Blocking Ban Will Be Game Changing For Patients, *Fierce Healthcare* (Mar. 31, 2021), <https://www.fiercehealthcare.com/tech/information-blocking-ban-will-be-game-changing-for-patients-experts-say>.
- 90 42 U.S.C. § 201. See also 21st Century Cures Act, *Legal Info. Inst.*, https://www.law.cornell.edu/topn/21st_century_cures_act.
- 91 Hanife Rexhepi, Rose-Mharie Ahlfeldt, Asa Cajander & Isto Huvila, Cancer Patients' Attitudes and Experiences to Online Access to Their Electronic Medical Records: A Qualitative Study, 24 *Health Informatics J.* 115, 116 (2018).
- 92 Individuals' Right Under HIPAA to Access Their Health Information, 45 C.F.R. § 164.524, *HHS.gov*, <https://www.hhs.gov/hipaa/for-professionals/privacy/guidance/access/index.html>.
- 93 *Id.*
- 94 Setting the Record Straight: Dispelling 10 Common Medical Records Myths, *TMLT*, <https://hub.tmlt.org/tmlt-blog/setting-the-record-straight-dispelling-15-common-medical-record-myths>; see also 45 C.F.R. § 164.524.
- 95 Individuals' Right under HIPAA to Access Their Health Information, *supra* note 92.
- 96 *Id.*
- 97 *Ciox Health, LLC v. Azar*, 435 F. Supp. 3d 30 (D.D.C. 2020).
- 98 *Id.* at 38.
- 99 *Id.* at 51.
- 100 Important Notice Regarding Individuals' Right of Access to Health Records, *HHS.gov*. (Jan. 28, 2020), <https://www.hhs.gov/hipaa/court-order-right-of-access/index.html>.
- 101 Heather Landi, Americans Will Have "Access to Their Health Information On Their Smartphones": Trump Admin on HHS Rules, *Fierce Healthcare* (Mar. 9, 2020), <https://www.fiercehealthcare.com/tech/hhs-releases-final-interoperability-data-blocking-regulations>.
- 102 Fred Schulte & Erika Fry, New Federal Rules Allow Patients to Access Medical Records Via Smartphone, *Fortune* (Mar. 9, 2020), available at <https://fortune.com/2020/03/09/medical-records-smartphones-ehrs-2020>.
- 103 News About Viewing Test Results in My Chart New Law Requires Results to Be Released to Patients More Quickly, *Reliant Med. Grp.* (Apr. 29, 2021), <https://reliantmedical-group.org/blog/2021/04/29/news-about-viewing-test-results-in-mychart-new-law-requires-results-to-be-released-to-patients-more-quickly>.
- 104 21st Century Cures Act Provides Immediate Access to Laboratory Results to Patients, *Clin. Pathology Lab'ys.*, <https://www.cpllabs.com/media/5786/21st-century-cures-act-provides-immediate-access-to-laboratory-results-to-patients-march-2021.pdf>.
- 105 Legal Implications of Medical Records and FCE Documentation Your FCE Is More Than a Medical Record, It Is a Legal Record, *Work Well Prevention and Care*, <https://www.workwell.com/hubfs/Downloadable%20Assets/Legal-Implications-of-Medical-Records-and-FCE-Documentation.pdf>.
- 106 Federal Mandates for Healthcare: Digital Record-Keeping Requirements for Public and Private Healthcare Providers *USF Health* (Nov. 16, 2021), <https://www.usfhealthonline.com/resources/health-informatics/electronic-medical-records-mandate>.