State of Washington
Medical Quality Assurance Commission
Guideline

Title:	Physician and Physician Assistants' Use of the Electronic Medical Record	MD2015-09
References:	RCW 70.02.110	
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Effective Date:	August 21, 2015	
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Observe, record, tabulate, communicate.
-Sir William Osler (1849-1919)

Background

It is critically important that physicians and physician assistants maintain accurate, timely, and consistent medical records to ensure delivery of high-quality, safe, and integrated medical care. The electronic medical record (EMR) offers a number of potential benefits over the paper medical record. However, as with any innovation, there are challenges and potential hazards in its meaningful use. The Medical Quality Assurance Commission (Commission) has recognized several problematic documentation practices while using an EMR that may in some instances:

- interfere with delivery of high-quality, safe, and integrated medical care;
- impede medico-legal or regulatory investigation; or
- be characterized as fraudulent.

In an effort to explain how the Commission will evaluate medical records in EMR format, it establishes these guidelines for appropriate EMR use by physicians and physician assistants. The Commission understands that evolution of the EMR will require collaboration between entities that develop and purchase EMR systems and clinicians who use the EMR. With this in mind, the Commission also offers suggestions about potential EMR improvements for software developers and health care institutions, and believes that clinicians should be involved in collaborative efforts with those entities to improve the EMR.

Following the enumerated guidelines and suggestions, a synopsis of the information used to develop them is appended for further reference.

Definitions

Electronic health record: An electronic health record (EHR) is an official electronic record designed to contain and share information from all providers involved in a patient's care. Although often used interchangeably with EMR, technically, EHR refers to data that can be used by authorized providers and staff from more than one health care institution. Unlike EMRs, EHRs also allow a patient's health record to move with them to other health care providers, hospitals, and nursing homes, even across states. [1] Similar standards for documentation in the EMR apply to the EHR, although current incompatibility between various EMR software systems has slowed progress towards the goal of every individual having their own EHR.

Electronic medical record: An electronic medical record (EMR) is a digital version of the traditional paper-based medical record for an individual patient. The EMR documents health care that took place within a clinician's office, single health care facility or health care system [1] as well as other forms of communication (records of phone calls, emails, etc.) between the health care team and the patient.

Medical record: Depending on the context, this term, medical record, may refer to documentation of an encounter between a patient and a clinician *or* a compilation of a patient's medical information (history, care or treatments received, test results, diagnoses, and medications taken, etc.). It may otherwise be known as the medical chart or, when it is a collection of paper records, the "hard chart" from a clinician's office, health care institution or system.

Guidelines for Physicians and Physician Assistants

The following guidelines, which are not necessarily exhaustive, are intended to inform clinicians concerning the appropriate use of an EMR, and to indicate how the Commission will evaluate a medical record, including those records that are the product of an electronic system. The Commission's expectation is that the patient record in an EMR should reflect the same or improved content and functionality as that produced in traditional formats, and that it will be held to essentially the same standard. As with any breach of the standard of care, the failure to adhere to the standard of care in maintaining a medical record that results in a potential for or actual patient harm may be subject to disciplinary action by the Commission.

1. Every clinician using the EMR must ensure:
   a. authorized use and compliance with institutional privacy and security policies;
   b. a timely, accurate, succinct, and readable entry [2];
   c. consistency and accuracy between various aspects of a record; and
   d. assumption of ultimate responsibility for trainees' and scribes' documentation.

2. Clinicians must ensure that the medical record appropriately and accurately reflects the patient's voice, condition, services provided, and includes the context of the patient's comprehensive history in such a way that another clinician can safely and easily assume care of the patient. Retention or re-entry of inaccurate, inconsistent, or outdated information in the EMR from historic entries should be avoided.

3. Clinicians' actions and decision-making should be accurately reflected in their documentation.

4. Documenting aspects of a clinician-patient interaction that did not transpire, such as indicating that components of a physical examination were performed when they were not, even when it occurs inadvertently because of EMR design or function, may be considered fraud. Similarly, when documentation about an aspect of the clinician-patient interaction is not present, the assumption is that it did not occur.

5. It is important to distinguish those portions of the history that were obtained by the note writer from those that were copied or carried forward from another clinician's note.[3] Concerns about "clinical plagiarism" or fraudulent billing may arise when appropriate and accurate attribution of copy-paste or carry-forward information is missing from an EMR note.

6. In documenting the medical record, clinicians should consider that patients increasingly have access to and will read their own medical record. Where possible, avoid overly technical or judgmental language in the EMR.

Suggestions for EMR Software Developers and Healthcare Institutions

1. Clinicians and clinical information specialists have an important role to play in development, decision-making, evaluation and improvement of EMR systems.

2. EMR systems should result in a patient record that is organized, concise, and easily-readable. Lengthy and redundant information in the EMR, a source of common clinician complaint, makes it difficult for other clinicians to identify data within the EMR that is relevant to actual patient care.[4]

3. The primary goal of the EMR is to promote high-quality, safe, and integrated health care. Other roles, such as documentation to support coding and billing, are secondary.

4. EMR systems should be compatible to allow seamless transfer of electronic medical information within and between health care institutions.

5. It is essential to have capacity within EMR systems to correct errors as soon as they come to light, and thereby prevent their perpetuation.

6. As patients increasingly have access to their EMR/EHR, they will undoubtedly find information within the medical record that is erroneous or with which they disagree. There should be a system in place within healthcare institutions to respond to patients' questions and concerns that arise from review of their EMR. [RCW 70.02.110]

7. Software supporting EMR clinical documentation should be designed/constructed for the type of provider who will use it (e.g., specialty, training) and the context in which it will be employed (e.g., admitting, consulting, ambulatory). It should automatically attribute information to each author.[2]

8. The medical record serves many audiences who need to be considered in the design and implementation of EMR systems. To meet their potential, EMRs should incorporate comprehensive decision support that:
    a. leads to improved patient outcomes;
    b. ensures safe transitions of patients from one clinician, facility, or office to another;
    c. allows easy tracking and reporting of patient care metrics and outcomes; and
    d. promotes patient-centered communication between patients and the health care system.[4]

9. Health care institutions should consider having mechanisms in place to monitor documentation quality and clinician satisfaction with the EMR, and to identify changes to support improved usability, validation, integrity, and quality of data within the EMR.[2]

10. The EMR should be designed for maximum portability and interoperability of information to benefit the patient and the public health. Full integration into the Washington State Health Information Exchange provides benefit to the patient requiring treatment when away from their medical home and provides meaningful data to assess population health. Technology vendors should design their systems with these functions as standards and institutions should mandate these functionalities as standard requirements for their implemented systems.

There is no more difficult art to acquire than the art of observation, and for some it is quite as difficult to record an observation in brief and plain language.
-Sir William Osler (1849-1919)

Appendix

Synopsis of Information Considered in Developing Guidelines

As of 2015, clinicians' use of the electronic medical record (EMR) has largely replaced that of the paper medical record. While the EMR offers advantages over paper records, the Commission has reviewed numerous complaints directly or indirectly related to the EMR. These complaints have led to concerns that current EMR systems, implementation, or use may: (1) interfere with delivery of high-quality, safe, and integrated health care (2) impede medico-legal and/or regulatory investigation (3) potentially be characterized as fraudulent.

Because the Commission is charged with promoting patient safety and enhancing the integrity of the profession of medicine, specifically that of physicians and physician assistants, these guidelines are intended to review appropriate use of the EMR by these professionals and to encourage a greater role for clinicians in the decision-making and improvement efforts around the EMR systems used in their clinical practice.

Examples of Complaints Received by the Commission

In review of complaints received from patients, other clinicians, malpractice claims, and health care institutions, the Commission is concerned about problematic features of current EMR implementation and use. We offer the following fictitious examples of EMR-related problems, which are based on cases reviewed by Commission members:

- A patient complains a clinician documented a complete physical examination in the EMR when only a focused examination of a patient's rash had been performed.

- Under the physical examination section of a patient's EMR, "tympanic membranes within normal limits" is explicitly stated, but in the assessment, the patient is described as having a "right acute otitis media."

- An error in a CT report about a mass in the right kidney is subsequently corrected to indicate that the mass is in the left kidney. The original diagnosis of right kidney mass is carried forward in the EMR problem list, leading to a wrong-site surgery.

- A primary care physician forgets to include a patient's bleeding disorder in the EMR problem list following his first appointment with the patient. The incomplete problem list is carried forward without review or update for inclusion in numerous other documents. During major surgery two months later, the patient suffers a massive hemorrhage. The surgeon was unaware the patient had a bleeding disorder.

- A clinician complains that her colleague copies and pastes the assessment portion of patients' EMR, including detailed medical decision-making, from other physicians' notes and then bills at a higher level than his actual work would support.

- A patient files a medical malpractice claim after delay in diagnosis of a brain tumor. The physician says that she performed a complete neurologic examination, which was normal, but the EMR documentation for the neurologic portion of the examination only states "Patellar reflexes 2+ bilaterally."
- A judge in a medical malpractice case found the EMR inadmissible because it contained so much redundant and irrelevant information.

History of the Medical Record

The medical record, as an entity documenting an encounter between a patient and a clinician, is a relatively new concept. Prior to the turn of the 20th century, patient case reports were written retrospectively, primarily for the purpose of teaching [5], with less emphasis on continuity of care. In the early 1900's, real-time documentation describing patient history and treatment was an emerging format, but patient care data were scattered and disorganized. A first step towards improving the quality and utility of medical documentation occurred in 1907 when assigning a unique number to each patient and consolidating all data for that patient into a single record was introduced. [5]

As medical education and the medical profession progressed following the Flexner Report in 1910 [2], it became necessary to document a patient's history for continuity of care and to accommodate growing involvement of medical and surgical specialists. In 1918, the American College of Surgery initiated a requirement that hospitals maintain records on all patients so that their content could be used for quality improvement. [5]

Throughout the 20th century, standards for formatting of the medical record continued to evolve. The Problem Oriented Medical Record (POMR) was introduced by Dr. Lawrence Weed in 1968. [5] The initial intent of the POMR was as an educational tool to help trainees organize their decision-making and treatment plan around each of a patient's separate medical problems. [6] [7] However, the POMR gained widespread acceptance among clinicians at all levels as did the SOAP (Subjective-Objective-Assessment-Plan) note format, which was derived from the POMR. [8] Additionally, within health care institutions and specialties, standards have emerged for documenting various types of encounters between clinicians and patients (e.g., History and Physical, Operative Note, Ambulatory New and Return Patient Notes, Interim and Discharge Summaries).

Requirements for clinical documentation were dramatically altered by release of the Evaluation and Management (E&M) guidelines by the Centers for Medicare & Medicaid Services (CMS) in 1995 and 1997. [8] Intended as a measure of cognitive (as opposed to procedural) services, the E&M guidelines specified the format and necessary components to be included in the medical record to support specific CPT codes for billing. The complexity of these requirements led many clinicians to rely on medical record templates, which were designed to promote compliance with E&M guidelines.

Until the late 20th century, the medical record was largely recorded on paper, either written longhand, or dictated and then subsequently transcribed. In part driven by approximately $30 billion of federal incentive payments over the last five years, the rate of EMR adoption has since risen quickly, [9] such that clinicians and health care institutions not currently using EMR are

now outliers. The EMR has specific goals ([Table 1](#)) and serves the needs of a variety of audiences ([Table 2](#)).

Table 1: Goals of the Medical Record[1] (as informed largely by Shoolin, et al [[7]](#))

> - Tell the patient's unique story as it relates to the patient's concerns ("the patient voice")
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> - Demonstrate diagnostic thinking and decision-making process undertaken by the clinician.
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> - Provide clinical information to allow covering or consulting colleagues to maintain care and make informed decisions regarding further care
>
> - Support coordinated longitudinal plans of care and care transitions within and across organizations
>
> - Provide a clear and easily understood summary of the encounter, including findings and recommendations, to the patient or the patient's designated representative
>
> - Provide clinical information to drive accurate Clinical Decision Support
>
> - Support and identify the quality of care provided to patients
>
> - Satisfy reasonable documentation requirements from payers
>
> - Create the legal business record of the patient care facility
>
> - Support population data collection and research
>
> - Create the legal record of a patient's medical and surgical care
>
> - Meet legal, accreditation, and regulatory criteria

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[1] These goals are similar to the intentions of "Meaningful Use." For additional background, refer to:
http://www.healthit.gov/providers-professionals/meaningful-use-definition-objectives

Table 2: Medical Record Audiences

> - Patients and their designated representatives.[2]
>
> - Fellow clinicians
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> - Other members of the health care team
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> - Researchers
>
> - Public health systems
>
> - Payers
>
> - Legal counsel
>
> - Courts, juries and medical review/regulatory bodies

Current EMR Implementation

Potential benefits and advantages of the EMR. There are potential benefits of the EMR, particularly as compared to paper medical records. Certain capabilities of the EMR may present both the potential for improving and for interfering with optimal documentation and patient care, which reinforces the importance of thoughtful and careful EMR planning, implementation, and use.

- Legibility: Handwritten notes could be illegible.

- Potentially greater efficiency for clinicians who, under increasing time pressures and facing large volumes of data, need ways to streamline their record keeping.[3]

- Reviewing and documenting in the EMR can be done remotely.

- Within an EMR, there is the capability to transfer important information about a patient from one note to another, reducing the need to rewrite information that has not changed.[3]

- EMR templates save time by displaying information in a standard format and relieving the clinician of reestablishing a format each time a similar note is needed.[8]

- More efficient computer entry, "real-time," i.e., during a patient encounter, could save time and reduce the need to recall details about the patient visit at a later time, potentially leading to greater accuracy.

- Better system efficiency including data retrieval, remote access, and transfer of information. Electronic access eliminates the cost and time needed to request and locate the hard chart. It also diminishes the chance of lost records, physical space required to store charts, and the need for personnel to assemble, store, and retrieve paper records.[10]

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[2] With implementation and expansion of the EMR and EHR, patients either already have or soon will have greater access to their own health information.

- EMR systems allow multiple providers to simultaneously enter data during a patient encounter. This saves time tracking down and waiting to document in the hard chart.

- The EMR is more readily searched than the hard chart, which often existed in multiple volumes. The EMR is typically indexed by type of record, author, and date.

- EMRs integrate different types of information that at one time were maintained in separate paper files in the inpatient setting (e.g., clinician orders, nurses and other ancillary staff documentation, prescription and medication administration records, allergies, vital signs, laboratory and radiographic studies, problem lists, and demographic information), into a single system and allow such information to be imported into electronic clinical notes.

- Real-time reminders and alerts can be incorporated into an EMR system including:
  - reminders about health care maintenance (e.g., immunization timing),
  - education (e.g., link to evidence-based guidelines), and
  - error checks (e.g., alerts about allergies or potential drug interaction or incorrect medication dosing).

- Improved regulatory and security monitoring the EMR includes "meta-data" (such as date and time stamps) and audit trail information that didn't exist in the legal paper record.[2]

- Ease of quality improvement and research studies electronic data are more readily accessible for quality improvement, public health, and research studies.

Potential challenges with current EMR implementation. The EMR theoretically promises to improve efficiency and communication, reduce errors, and improve quality of care.[2] Yet, every advance brings with it the potential for new problems, and the EMR is no exception.[3] There are serious negative implications to poorly designed EMR systems, suboptimal EMR implementation, or careless EMR use by clinicians. A poor quality medical record, which could be inaccurate, inconsistent, incomplete, or obscure important information among unneeded or redundant detail, may adversely impact current or future care, transfers of care, and/or medico-legal investigations.[2] Problematic aspects of current EMRs include:

- **Increased work load:** Data entry into the EMR can be time-consuming, particularly for clinicians who do not type well.[3]

- **Copy-paste:** Electronically carrying forward or copying portions of previously written notes and pasting them into a currently drafted note is problematic [2] when it is either:
  - Copying the work of others without attribution[3] ("clinical plagiarism" [2] [11]) or without independent confirmation.[4]

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[3] Some clinicians rely on scribes or speech recognition software. Ultimately, the clinician is responsible for ensuring that the medical record is accurate.

[4] The US Department of Health and Human Services and the Office of the Attorney General have expressed concern for fraud resulting from liberal copying-pasting within the EMR and subsequent upcoding, citing "possible abuses including 'cloning' of medical records, where information about one patient is repeated in other records, to

- Introducing unnecessary redundancy (see next point—"note-bloat.").[2]

- **"Note-bloat":** Note bloat refers to unnecessary and redundant expansion of a note's length and complexity. With electronic documentation, it is easy to incorporate large volumes of data into clinical documentation. Inappropriate copy-paste, carry-forward, and computer-aided data entry (auto-filling) increases the risk of lengthy but information-poor notes.[2] Such redundant content detracts from readability, makes it more difficult to interpret and identify pertinent content, and jeopardizes the communication for which clinical notes are intended.[2]

- **"Boilerplate":** Despite the appeal of using templates, "boilerplate" text may add unnecessary detail that detracts from more important information. Furthermore, busy clinicians may carelessly retain parts of a normal review of systems or examination from the template rather than correctly indicating abnormal reports or findings from their interaction with the patient, resulting in inconsistent and erroneous information within the medical record. [2]

- **Differences between the electronic version and paper copy of the EMR:** The printed copy of the EMR may look very different from the electronic version. Specifically, the paper copy of the EMR may differ from the electronic version either by including auto-populated redundant or extraneous information or excluding data that could not be readily printed. Currently, however, when copies of records are requested for patient care, investigative, or discovery purposes; they are typically provided as paper copies, often at a considerable cost to the requesting party, which may be difficult to read or incompletely reflect patient care.

- **"Pseudo-history" and "pseudo-examination":**[3] Some EMRs convert checked symptom boxes into sentences and paragraphs that are then imported into the EMR such that they appear to recount the verbatim report of the patient. However, the generated history is not derived from the patient's actual words; it only represents binary (YES/NO) data processed into standardized phrases. A similar process with checkbox-to-sentence physical examination findings is available.[3] Such technology potentially undermines consideration of each patient as an individual and conceals the nuances of his/her unique history and needs.

- **Errors in the EMR can be perpetuated and difficult to correct:** Some of these errors have serious undesirable implications for subsequent care and patients' health. Providers and patients complain that when an error occurs in the EMR, it can be very difficult to correct. These errors in documentation can be perpetuated over time and may lead to actual medical errors and adverse patient outcomes.

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inflate reimbursement In 2012, the Obama administration warned against such practice: "There are troubling indications that some providers are using this technology to game the system, possibly to obtain payments to which they are not entitled. False documentation of care is not just bad patient care; it is fraud." (Abelson and Creswell, 2012)

- **Interference with provider-patient relationship:** Real-time EMR entry during a patient visit may interfere with face-to-face contact with the patient, which may reduce active listening, conceal important diagnostic clues, and damage patient-clinician rapport.

- **Overemphasis on documentation to meet billing specifications:** This issue largely dates back to E&M regulatory efforts, initiated when paper medical records still predominated. However, EMR systems have also incorporated E&M elements into their electronic templates leading to concern that documentation whose major design objective is to support coding and billing may subvert the true goal of the EMR, which is to promote high-quality, safe, and integrated health care.

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