



CHAPTER

13

The Medical Record

Learning Objectives

After completing this chapter, you should be able to:

- 13.1 Define and spell the terms for this chapter.
- 13.2 Compare and contrast electronic and paper-based records.
- 13.3 Outline the history of electronic health records.
- 13.4 Explain the purpose of meaningful use as it applies to electronic health records.
- 13.5 Describe the HITECH Act as it relates to adopting electronic health records.
- 13.6 Describe the differences between electronic health records and practice management systems.
- 13.7 List the benefits of utilizing electronic health records.
- 13.8 Explain the ownership of medical records.
- 13.9 Explain special considerations when releasing medical records.
- 13.10 Describe the differences in organizing a medical record according to problem-oriented and source-oriented methods.
- 13.11 Describe the components of SOAP charting.
- 13.12 List the types of information contained in a patient's medical record.
- 13.13 Identify equipment and supplies needed to create, maintain, and store paper medical records.
- 13.14 Describe indexing rules related to filing paper medical records.
- 13.15 Identify long-term storage options for paper medical records.
- 13.16 Differentiate between how electronic and paper-based records are used in the office.
- 13.17 Explain the medical assistant's role in computerized physician order entry.

Case Study

Pearson Physicians Group is considering making the change from paper to electronic health records. The physicians have assembled a team consisting of Lewis Jordan and Tania Washington to gather information relating to this possible change.

Terms to Learn

| | | |
|---|---|--|
| active records | electronic medical record (EMR) | numeric filing |
| alphabetic filing | electronic signature | Office of the National Coordinator for Health Information Technology (ONC) |
| certified EHR technology | exception report - | personal health record (PHR) - |
| chronological medical record | Health Information Technology for Economic and Clinical Health Act (HITECH) | problem-oriented medical record (POMR) |
| closed records | inactive records | source-oriented medical record (SOMR) |
| collating | login | subjective, objective, assessment, and plan (SOAP) |
| computerized physician order entry (CPOE) | meaningful use - | terminal digit filing |
| covered entities | medical record - | token signature - |
| digital signature | microfiche | |
| digitized signature | microfilm | |
| electronic health record (EHR) | | |

An **electronic health record (EHR)**, sometimes called an **electronic medical record (EMR)**, is a computerized version of a patient's medical history. At their simplest, EHRs are digitized images of paper records but, when fully implemented, they are networked, real-time, patient-centered databases that collect and share information from all providers involved in a patient's care. In general, EMR refers to a digital version of a patient chart kept in a single provider's office, whereas an EHR includes information beyond the provider's office that originally collected the data. The intent of an EHR is to share information across all organizations and providers involved in a patient's medical care, such as the primary care provider, specialists, laboratory, and so on.

Few medical offices are entirely paper-based, and few offices have a completely paperless environment that can result from a fully implemented EHR network. Most medical practices have some components of an EHR and operate somewhere along the continuum from an entirely paper-based medical record to an entirely automated environment. The trend is rapidly moving toward an increased level of automation because of the evolution of technology and legislation that pays providers financial incentives for implementing EHRs. To simplify terminology in this text, no

distinction between EMR and EHR is made; EHR is used exclusively.

Most medical assistants work with EHRs at some point during their career. If you work in an office that currently has very little automation, you will most likely be involved in adding components of an EHR sooner or later. Offices that already have well-developed EHRs need to upgrade and expand the system from time to time.

This chapter discusses the purpose and history of EHRs, differences between EHRs and paper-based documentation, and benefits of EHRs. You will also learn about privacy and security concerns, various documentation formats, and components of a medical record. Finally, you will learn about implementing an EHR system.

PURPOSE AND HISTORY OF ELECTRONIC HEALTH RECORDS

An EHR provides a computerized means of gathering, documenting, and storing information about the patient and the care that the patient received in the medical setting. The same information found in a patient's paper chart is found in an electronic chart; however, electronic records are stored and accessed using a computer. EHRs allow access to patient

information by multiple physicians and hospitals through the use of electronic networking and communications. Networked EHRs are often found in medical offices associated with a hospital network of providers. Data can be created, managed, and consulted by authorized providers and staff from across all entities within the network. Authorized providers can immediately access medical information from remote locations.

Appropriate Use of Terminology

As a medical assistant, you may encounter a variety of terms for what is now referred to as the electronic health record. When computers first came into use, the term *computer-based medical records* referred to paper-based records that had been scanned, then stored on the computer rather than in file cabinets. As computers gained in popularity and software was developed, the term *electronic medical record (EMR)* became popular. The term *electronic health record (EHR)* was adopted to describe the ability to share computerized patient information among providers. In 2003, the Institute of Medicine of the National Academies (IOM), which was a driving force behind EHRs, adopted EHR as the preferred and exclusive term to describe all types of computerized medical records, whether based in a single office or shared among a network of providers. Legislation, including the 2009 HITECH Act provides incentive payments for implementing EHRs, uses the term *electronic health record* only. Therefore, it is recommended that medical professionals use only the term *electronic health record*, or EHR.

Personal Health Records

A **personal health record (PHR)** is health information that the patient stores electronically on a computer or on a secure Internet site. This allows patients to maintain electronic records of their own health information such as immunizations, medications, and surgeries. A PHR is maintained by an individual patient, whereas an EHR is maintained by health care providers.

PHRs have several benefits for patients. Patients may choose to share their PHR information with their usual providers. PHRs also give patients a means of sharing health information with new providers, should they move or need medical care while travelling. PHRs can increase patient participation in their own care. Viewing a trend of lab results or blood pressure readings can motivate patients to take medications and keep up with lifestyle changes that have improved their health. PHRs can also help families become more engaged in the health care of family members.

PHRs are provided by third-party vendors and consist of either a software application patients can install on their

personal computer or an Internet-based portal that allows patients to store information on a website. Patients fill in the information from their own records and memories, and the information is stored on patients' computers or the Internet. The advantage is that patients are in control of their health information and can access it or share it with any provider. The disadvantage is that providers cannot directly update or verify the accuracy or completeness of the information. Patients must be careful to select a PHR provider that follows stringent privacy practices, so the privacy of their medical information is not compromised.

A tethered PHR is a function of provider-based EHRs that allows patients to access their EHR online. This is discussed later in the chapter. Eventually, patients may be able to link their standalone PHRs with their doctors' EHRs, creating their own health care "hubs."

History and Legislation

Although EHRs have been around since the Mayo Clinic began using them in the 1960s, ambulatory care has been slower than inpatient facilities to adopt the technology. Since President Bill Clinton (1993–2001) took office, the federal government has searched for ways to reduce medical errors and health care costs. President Clinton established the Agency for Healthcare Research and Quality (AHRQ) to research techniques to accomplish this. President George W. Bush (2001–2009) established the **Office of the National Coordinator for Health Information Technology (ONC)** and pushed for the adoption of technology that would reduce medical errors, improve health care quality, and reduce expenditures. President Barack Obama (2009–2017) identified EHR as a priority for his administration and approved legislation to promote the widespread adoption of EHR. Future presidents undoubtedly will continue these efforts.

HITECH Act Funding Incentives

In 2009, Congress passed legislation that made funding available for EHR implementation for the first time. The **Health Information Technology for Economic and Clinical Health (HITECH) Act**, which is part of the American Recovery and Reinvestment Act of 2009 (ARRA), includes financial incentives for providers who adopt EHR and demonstrate its use in ways that can improve quality, safety, and effectiveness of care. The goal of the funding is to encourage providers to adopt EHR sooner than they otherwise would, because Congress believes EHR can help improve quality of care and reduce costs. The ONC, Centers for Medicare and Medicaid Services (CMS), and other agencies within the Department of Health and Human Services (HHS) are working together to establish the criteria for the funding of EHRs. Under the

incentive program, eligible Medicare providers can receive as much as \$44,000 over a five-year period; eligible Medicaid providers can receive as much as \$63,750 over six years.

Meaningful Use

Meaningful use refers to a set of criteria for how EHRs are used that providers must meet to receive incentive payments. The criteria are being phased in over three stages, from 2011 onward. Medicaid providers receive the first year of incentive payment when they adopt, implement, or upgrade **certified EHR technology**. Stage I (2011–2012) focused on data capture and sharing. Stage II (2014) focused on advanced clinical processes. Stage III (2016) focused on improved outcomes. To qualify for payments, providers must demonstrate meaningful use of certified EHR in ways that can be measured. Meaningful use criteria are grouped into five patient-centered areas that relate to health care priorities.

- Improve quality, safety, and efficiency
- Engage patients and families
- Improve care coordination
- Improve public and population health
- Ensure privacy and security for personal health information

Examples of meaningful use criteria include:

- E-prescribing
- Electronic exchange of health information to improve quality of health care
- Submission of information on clinical quality measures

Certified EHR Technology

Certified EHR technology gives assurance to purchasers that a specific EHR system provides the features necessary to meet the meaningful use criteria. Certification also helps providers and patients be confident that the electronic health information technology (IT) products and systems they use are secure, can maintain data confidentially, and can work with other systems to share information. A certified EHR meets the following criteria:

- Includes patient demographic and clinical health information, such as medical history and problem list
- Provides clinical decision support
- Supports physician order entry
- Captures and queries information relevant to health care quality
- Exchanges electronic health information with, and integrates such information from, other sources

Projected Savings

The purpose of the incentive payments is to accelerate adoption of EHRs. The Congressional Budget Office (CBO) anticipates that approximately 90 percent of doctors and 70 percent of hospitals will be using comprehensive electronic health records by 2019. It estimates that the accelerated adoption will eliminate redundant services and tests, thus saving Medicare \$4.4 billion from 2011 to 2019. CBO estimates that, during the same time period, the HITECH Act will save the government approximately \$12 billion on direct spending in the Medicare, Medicaid, and Federal Employee Health Benefits programs.

Differences Between Electronic and Paper-Based Records

Although EHRs contain the same information as paper-based medical records, they do not look like paper records or function in the same way. Medical assistants should be aware of differences in documentation formats, medical record components, and retention and storage requirements. Medical assistants need to be flexible and willing to learn new procedures and processes, because technology is always improving and EHR systems must be updated or replaced periodically.

Different Documentation Formats

EHRs provide a more flexible documentation format than paper-based records. Paper-based medical records are organized according to a chosen documentation format that is generally used consistently for all records and all encounters. Examples of documentation formats are the chronological format, SOAP (Subjective, Objective, Assessment, Plan), POMR (problem-oriented medical record), and source-oriented medical record. In contrast, documentation formats in the EHR can often use different documentation formats, making use of the best system for the particular task. Depending on the system, users may have a choice of documentation formats. The most common method for documenting progress notes is SOAP charting, but data can easily be sorted or retrieved based on problems or chronology (date order). This flexibility makes the documentation process relatively easy and adds functionality, because information can be accessed in a number of ways. Such flexibility is possible because of the underlying database that identifies and indexes data elements.

Different Medical Record Organization

EHRs store various types of information, just as paper-based records do, such as physical examination notes, lab results, operative reports, and consultation reports. In a paper-based

record, the file folder is divided into sections that are labeled for each type of report. In an EHR, each type of report is accessed with a unique menu selection. The advantage of EHRs is that information is linked and cross-referenced. For example, when a progress note documents that the physician ordered a laboratory test, an EHR can provide a link that allows the user to view the results of the lab test without needing to exit the screen and navigate to a different part of the program.

Collating EHRs

The time-consuming task of collating paper-based medical records is eliminated when using an EHR. Test results and reports are delivered to the office electronically. A queue provides a computerized list of all new reports, which the physician must review and approve. When this is accomplished, the reports are electronically filed in the patient's EHR. Depending on the system, this may be accomplished automatically or a staff member may need to designate which patient record each report belongs to.

It is not necessary to pull and organize medical records for patients scheduled for the next day, because all the information is already in the EHR. Each staff member who works with the patient can click on the appointment screen or select the patient from a list and instantly access a patient's record.

Coherence Between EHR and Practice Management Software

An EHR is different than a practice management system (PMS), which was discussed in the chapter titled "Computers in the Medical Office". An EHR system manages medical records of individual patients and, when fully implemented, networks with offices of other health care providers to share information regarding specific patients. A PMS manages administrative and business functions of a medical practice, including appointment scheduling, patient registration, and insurance billing. A PMS also can generate

a variety of business reports related to these areas. A PMS does not store clinical information, aside from that used for billing, such as diagnostic and procedure codes.

BENEFITS OF EHR SYSTEMS

One of the key features of an EHR is that it can be created, managed, and consulted by authorized providers and staff across multiple health care organizations. A single EHR can bring together information from current and past doctors, emergency facilities, school and workplace clinics, pharmacies, laboratories, and medical imaging facilities. This interactivity offered by EHR provides benefits not possible from paper-based records. For example, EHRs enable providers to do the following:

- Review medications prescribed by other providers to avoid duplication or medication interactions.
- Access a patient's medical history to more quickly identify a problem or risk factor.
- View imaging studies electronically to better understand the progression of a patient's condition.

Physicians and their staffs must retrieve paper files from separate and often large rooms, in contrast to electronic records that are easily accessible on a computer. In large offices where patients might see multiple providers, EHRs allow physicians to easily locate patients' laboratory results, consultations, X-rays, and examination findings from other providers. Benefits of EHRs include improved diagnostics and patient outcomes, improved patient participation, and improved efficiencies, resulting in cost savings.

Most electronic health records systems can be configured to work according to an office's specific needs. Some offices implement more features than others. With the incentives for EHR implementation under the HITECH Act, an increasing number of offices have added EHR functionality. Box 13-1 lists the functions many of these systems provide.

BOX 13-1 | Functions of an EHR

The following can be documented in an EHR:

- Progress notes
- Timestamps on documentation entries
- Prescriptions electronically transmitted to the pharmacy
- Patient education information given to the patient
- Digital photos of the patient and the patient's condition
- Automatic recording of vital signs and diagnostic tests
- Electronically reported lab results, imaging studies, and other medical tests, as well as graphs of such data
- Graphs of height, weight, and blood pressure data
- Letters to or about patients
- Consultation reports
- Electronic data transmission to other health care providers
- Telephone calls with patients
- Capability to search electronically for patients with a certain condition or of a certain age or geographic location

Improved Diagnostics and Patient Outcomes

EHRs can improve the ability to diagnose diseases and reduce—even prevent—medical errors, improving patient outcomes. Because providers have reliable access to a patient's complete health information, they see a comprehensive picture of the patient's status, which helps diagnose patients' problems sooner.

The medical office can perform many tests in the office and have the results appear immediately in the EHR. This can be done with a number of laboratory tests on blood and urine samples, digital X-rays, Holter monitors, and spirometers. In some cases, thermometers and blood pressure cuffs can be linked to the EHR to allow automatic recording of vital signs (Figure 13-1).

Improved Documentation

EHRs help providers to complete documentation more quickly, more consistently, and in more detail than occurs with paper-based documentation. Most EHR programs have drop-down menus or selection lists that allow the user to choose information or symptoms from a preprogrammed list (Figure 13-2). For example, when the user inserts a diagnosis of "diabetes," the software may display a list of symptoms common to the condition, such as excessive thirst or frequent urination. The physician selects the symptoms reported by each specific patient. Many EHR programs also



FIGURE 13-1 A blood pressure cuff can be linked to the electronic health record software to allow automatic recording of pressure readings.

include lists of possible diagnoses for the physician to choose from based on the symptoms the patient lists. For example, if the patient complains of excessive thirst and frequent urination, the program might offer "diabetes" as a possible diagnosis for the physician to consider.

Improved Care Coordination

EHR systems can decrease the fragmentation of care by improving care coordination. Better care coordination can lead to better quality of care and improved patient outcomes.

Medicine Student Edition - Kerry Baker - 05/4/12 10:15 (10 minute visit)

Selected: Enter Options Forms Notes Graph Help

Exit Browse Meds Search Prompt Listsize Lists Forms E&M NursePhys Goal Outcome

Back Print Chief Negs ROS History Show Sheet Grid Details Cite Order Rx

Sx Hx Px Tx Dx Rx Browse Edit

Templates (Symptoms)

- ☐ feeling tired or poorly
- ☐ fever
- ☐ chills
- ☐ headache
- ☐ sinus pain
- ☐ swollen glands in the neck
- ☐ earache
- ☐ discharge from the ears
- ☐ (784.99) Nasal discharge
- ☒ (478.19H) Nasal passage blockage
- ☐ sore throat
- ☐ difficulty breathing (dyspnea)
- ☐ cough
- ☐ coughing up sputum
- ☐ coughing up blood (hemoptysis)
- ☐ muscle aches

Note View Outline View

Student: Terry Jones
Patient: Kerry Baker F: 5/08/1976: 5/04/2012 10:15AM
Chief complaint:
The Chief Complaint is: Patient reported cold or flu.
History of present illness
Kerry Baker is a 35 year old female.
She reported: Sinus pain.
Nasal discharge and nasal passage blockage.
Physical findings

Vital Signs:

| Vital Signs/Measurements | Value | Normal Range |
|--------------------------|----------------|---------------|
| Oral temperature | 99 F | 97.6 - 99.6 |
| RR | 16 breaths/min | 12 - 20 |
| PR | 78 bpm | 50 - 100 |
| Blood pressure | 120/80 mmHg | 100-120/56-80 |
| Weight | 100 lbs | 98 - 183 |
| Height | 60 in | 60.24 - 68.5 |

Entry Details

Nasal passage blockage Spec

Prefix Modifier Result Status Episode Onset Duration Value Unit

ADT Encounter Forms Manage Nursing

FIGURE 13-2 An example of a selection list used to identify symptoms.

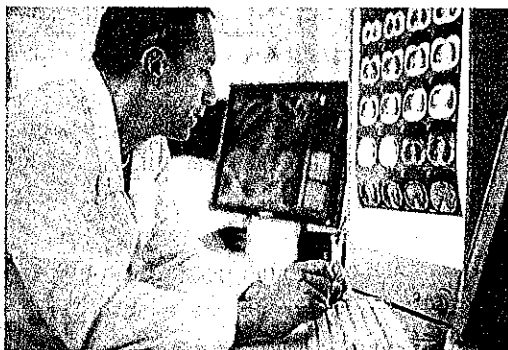


FIGURE 13-3 EHR systems enable providers to view patient records across organizations.

When patients interact with a variety of providers, such as primary care physicians, specialists, nurses, technicians, and other clinicians, it is easy for care and communication to become fragmented. Each member of the health care team has a unique perspective of the patient, based on the area of specialty. Because the EHR enables all providers to see who else is caring for the patient, they can access information they might not see in a paper-based system. This enables providers to consolidate fragmented facts and clusters of symptoms into a cohesive understanding.

Better availability of information can also reduce the chance that one specialist will not know about an unrelated (relevant) condition being managed by another specialist (Figure 13-3). This is especially important with patients who see multiple specialists, transition between care settings, and receive treatment in emergency settings.

Because EHRs contain all of a patient's health information in one place, it is less likely that providers will have to spend time ordering—and reviewing the results of—duplicate tests and medical procedures.

Avoiding Medical Errors

Better availability of patient information can reduce medical errors and unnecessary tests. EHRs can be used to alert health care providers to possible medication reactions. This is especially helpful when treating patients who are being co-treated by several specialists. The software typically has a built-in safeguard mechanism that alerts the prescribing physician to any contraindicated medications that a patient might be taking.

One of the most convincing arguments for converting paper medical records to an electronic format is patient safety. In 1999, the Institute of Medicine published a report called "To Err Is Human: Building a Safer Health System." This report stated, "At least 44,000 people, and perhaps as many as 98,000 people, die in hospitals every year as a result of medical errors that could have been prevented." One of

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Because single-practice EHRs are standalone systems not linked to other providers, information contained in them is not easily shared with providers outside the practice, such as a specialist or hospital. When other providers need to access a patient's chart, information can be converted into a universal text format that can be read by other systems, or it can be printed out and physically delivered.

the institute's recommendations was to move to EHRs. Their conclusions suggested that some medical errors are caused by indecipherable (unreadable) handwriting, a problem that would be eliminated if health care providers made their entries electronically rather than in handwritten form.

Some states have enacted legislation to address the issue of bad handwriting and medical errors in relation to prescriptions. Such laws may require that all prescriptions written by physicians be electronically submitted to pharmacists or be printed rather than written in cursive handwriting.

Improved Patient Participation

Providers and patients who share access to electronic health information can collaborate in informed decision making. Patient participation is especially important in managing and treating chronic conditions such as asthma, diabetes, and obesity. Providers can give patients full and accurate information about all their medical evaluations. They can also provide information after an office visit or a hospital stay, such as self-care instructions, reminders for other follow-up care, and links to web resources.

Providers can manage appointment schedules electronically and exchange e-mail with their patients. Quick and easy communication between patients and providers may help providers identify symptoms earlier. It also can help providers to be more proactive by reaching out to patients.

Online Patient Access

Online patient access allows patients to look up portions of their EHR via the Internet. This is sometimes called a *tethered PHR*, because the personal health information is maintained by the provider, not by the patient. Using a secure, password-protected system, patients can access their laboratory results, dates of immunizations, or medication history. For example, they can view the trend of their lab results over the last year. Having such information available is especially helpful for patients when they travel or need to

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Cultural Considerations



Information technology is at the heart of modern life. It touches different people in different ways. Some are comfortable with new technologies; others may be intimidated, at least at first. EHRs, PHRs, and other health information technology (IT) developments tend to make many patients more active in their own health care. As providers adopt new technologies such as EHRs, it is important to keep the patient's perspective in mind.

seek emergency care with someone other than their primary care providers. The advantage of accessing EHR information online, compared with the PHR, is that the information in the EHR is directly based on official test results and information that providers enter. The disadvantage, compared with PHRs, is that patients usually have limited ability to change or add information. If the patient moves or changes to a different network of providers, she may not be able to include updates to the EHR in the same system.

Health Maintenance

EHRs provide information that can be managed to promote health maintenance among patients. Medical offices send reminder cards or letters to patients regarding the need for upcoming services. These are typically used to remind patients of the need for a colonoscopy, a mammogram, a yearly physical, immunizations, or well-child checkups. The administrative medical assistant can use the software program to print these reminders.

Some medical clinics send informational flyers to patients on a regular basis. An example is a flyer that is sent during flu season that describes the signs and symptoms of the flu

along with prevention tips. The prevention tips are intended, in part, to encourage readers to come into the physician's office for a flu vaccine.

The medical assistant can create a list of patients according to specific parameters. For example, if the office has recently welcomed to the staff a physician who specializes in allergies, the medical assistant can create a list of patients who have been treated for allergies and can use that list to send a letter or an e-mail to patients to let them know of the availability of the new physician.

Improved Efficiency and Cost Savings

Health care providers have found that EHRs help improve medical practice management by increasing practice efficiencies and cost savings. Less time spent charting, as a result of more efficient documentation with EHRs, means that more time can be devoted to patient care. Box 13-2 summarizes cost savings made possible by EHRs.

EHRs allow medical staff to easily transmit patient information to patients' health insurance companies when requested rather than having to photocopy the paper records and send them via the postal service. However, keep in mind that it is just as important to follow Health Insurance Portability and Accountability Act (HIPAA) guidelines for releasing medical records electronically as it is for releasing photocopies of the patient's paper medical record.

Multi-User Accessibility

Unlike a paper-based medical record, a patient's EHR can be accessed and used by more than one staff member at a time. For example, the billing office might have the patient's medical record open on a computer screen while accessing information needed for coding a specific procedure. At the same time, the physician might have the same patient's file

BOX 13-2 | Cost Savings with an EHR System

EHRs can contribute to cost savings in many areas:

- Reduced transcription costs
- Reduced chart pull, storage, and re-filing costs
- Improved and more accurate reimbursement coding with improved documentation for highly compensated codes
- Reduced medical errors through better access to patient data and error prevention alerts
- Improved patient health/quality of care through better disease management and patient education
- Improved medical practice management through integrated scheduling systems that link appointments directly to progress notes, automate coding, and manage claims
- Time savings with easier centralized chart management, condition-specific queries, and other shortcuts
- Enhanced communication with other clinicians, labs, and health plans through:
 - ♦ Easy access to patient information from anywhere
 - ♦ Tracking electronic messages to staff, other clinicians, hospitals, labs, etc.
 - ♦ Automated formulary checks by health plans
 - ♦ Order and receipt of lab tests and diagnostic images
 - ♦ Links to public health systems such as registries and communicable disease databases

open on a separate computer screen to input treatment notes. This increases efficiency because staff members do not need to locate the patient's record, nor do they have to wait until one person is finished with it before another can use it.

Electronic Signatures

Most EHRs provide an **electronic signature** component that is based on the individual's **login** (user name and password). An electronic signature, or e-signature, is an electronic indication of intent to agree to or approve the contents of a document. The United States E-SIGN Act defines an electronic signature as an "electronic sound, symbol, or process, attached to or logically associated with a contract or other record and executed or adopted by a person with the intent to sign the record." E-signatures are legal in business and are accepted in health care and EHRs.

Three types of e-signatures are commonly used in EHRs:

- A **digitized signature** is an electronic image of a hand-written signature. The signature may be obtained in real-time, such as when a patient signs a consent form, or may be a previously saved image file, such as when a physician's written signature is scanned into the computer for use on letters. Such a file must be kept secure with limited access. Digitized signatures are the least secure type of e-signature.
- A **token signature** is a type of e-signature in which the user must click a button, enter a personal identification number (PIN), or complete a biometric scan, such as a fingerprint, to record the electronic signature. This type of signature is more secure than a digitized signature because it requires an action by the signer to implement the signature.
- A **digital signature** is the most secure type because it is an encrypted (scrambled) signature with multiple layers of security that prevent it from being used by unauthorized persons.

After an entry is made in the patient's chart, the staff member or physician clicks "Signature" and the entry is electronically signed. Because the electronic signature is based on the computer login information, it is imperative that user names and passwords are not shared and are changed often.

Staff Communication

EHRs can aid in communication among staff members regarding specific patients. An example is a patient who has an outstanding account balance. The billing staff member may need to see the patient during the next visit with the physician. The billing staff member can post a message alert in the patient's chart that is seen by the receptionist when the patient checks in. The alert allows the billing staff

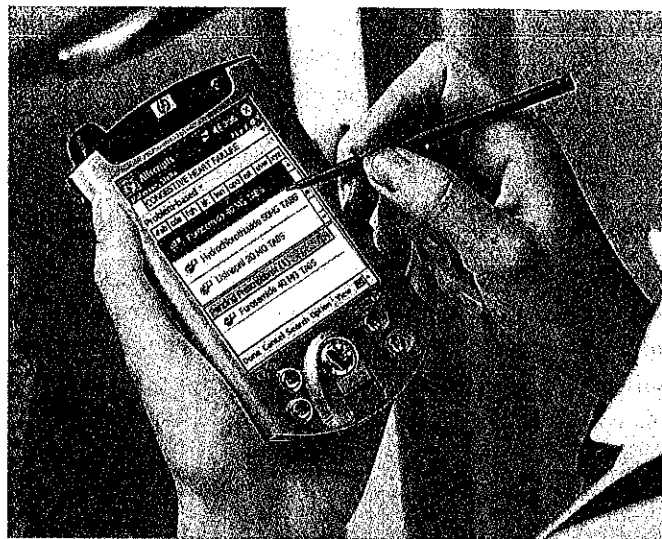


FIGURE 13-4 Medical assistants can quickly pull up a patient record when a phone call is received.

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When it is necessary to communicate with another staff member regarding a patient and to send an alert, keep your communication professional. This means to use proper medical terms and correct grammar, and not to make personal comments about patients or staff members. Unlike a sticky note that may be thrown away after the appropriate staff member reads it and responds, the alert you send in the EHR may become part of the patient's permanent, legal record.

member to have the receptionist direct the patient to the billing office before the visit.

Charting patient information, such as telephone calls, is easily done within the EHR (Figure 13-4). Typically the software contains a section for adding information, such as telephone calls or conversations with the patient and the patient's family that occur in the office and are related to the patient's medical care. When the receptionist documents a telephone call in the EHR, the message can be flagged and sent electronically to the appropriate medical assistant or physician without having to get up, pull the patient's chart, and carry the chart and message to the person.

OWNERSHIP OF THE MEDICAL RECORD

The **medical record** is a legal document, a permanent record, and a tool used by staff members to communicate within their office and with other offices regarding the services

delivered to the patient. It can also be subpoenaed by the courts as evidence. HIPAA established that the patient owns the information in the medical record and has the right to control under what circumstances, and with whom, it is shared.

The Medical Record as a Legal Document

Medical staff must follow meticulous standards regarding what information to document, how to document it, and how to correct errors. Everything that is done during a patient's medical visit, ordered over the telephone, or discussed with a patient by telephone or e-mail must be documented in the medical record. Any activities not documented are considered not to have occurred. This leads to the common saying in health care, "If it wasn't documented, it wasn't done."

Documentation should be factual, based on statements of the patient and the physician's assessment. The patient's statement of the problems, symptoms, reason for the encounter, and questions should be written in quotation marks using the exact words of the patient when possible. Patient statements are recorded under the subjective (S) portion of the progress notes. The physician's findings of the physical examination and test results are recorded under the objective (O) portion of the progress notes. The physician's diagnostic opinion is recorded under the assessment (A) or impression portion of the progress notes. The physician's recommendations and plan for further testing and treatment are recorded under the plan (P) portion of the progress notes.

Entries in paper medical records should be written in black ink. Handwriting should be clear and easy to read by anyone. Sign and date all entries.

Ownership of the Medical Record

Patients own the information in their medical records, but the facility that created the information owns the physical or electronic record. Patients have the right to view their medical records, so medical offices must have a procedure in place to facilitate this. Usually this involves the patient making a request in advance and setting a time when a staff member can review the records with the patient. Before allowing a patient to view the record, make sure either the physician or the office manager has given approval. If the physician determines it could be detrimental for the patient to read the record, as may be the case in a mental health facility or with files related to the treatment of mental health disorders, access to this portion of the record can be denied. These situations are discussed later in this chapter.

A staff member should always be present when a patient reviews the record. This provides someone who can help

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Remember that information in the medical record should be factual. The patient's chart is not the place to document your opinion or internal office problems. Statements such as "Injection was not administered because of lack of staffing," or "Patient very angry with physician" are subjective opinions of staff and do not belong in the medical record. Instead, state the facts, such as "Patient stated, 'I am very upset that the physician did not call me sooner.'"

orient the patient and answer questions about the content. It also serves as a security measure so that a patient does not write in the record, tear pages out, or alter it in any way. Patients may request that changes be made to the medical record. The physician is not obligated to make the change(s), but the nature of the patient's request must be clearly documented within the medical record.

Ownership of Radiology Images

Radiology images can be stored digitally or on film. Regardless of which method is used, the original image is almost always the property of the medical facility that performed the X-ray. Written reports prepared by the radiologist are sent to other physicians at the request of the patient, but the image generally remains in the original office so that it can always be located and accessed for future examination and comparison.

With the increase in digital imaging and electronic health records, many physician offices are electronically linked to large radiology centers or those affiliated with hospitals. This enables physicians to access an image and report electronically, without having to request a physical copy. Radiology facilities are often able to provide patients with a CD or DVD containing the image. Patients may share the image with other physicians or keep it for their own reference.

Professionalism The Workplace



HIPAA established that patients own the information in their medical record because it is a history of their medical care. As a medical assistant, you must be able to explain to patients that the physician owns all the physical files or electronic media that contain this information, although patients have a right to see and have a copy of their medical records.

When physical films are used, physicians can loan their films to referring physicians for further examination. When the review is complete, the film must be returned to the original facility. Because films are a permanent record of the patient at a particular moment, they must be preserved carefully. It is possible, in some locations, for the patient to obtain a copy of a physical film. The patient might have to pay for the copy to be made.

HIPAA and Confidentiality of Records

The HIPAA Privacy Rule applies to health information created or maintained by **covered entities**, which are health care providers, health plans, and electronic claims clearinghouses that engage in certain electronic transactions. The Office for Civil Rights (OCR) is responsible for implementing and enforcing the privacy regulation.

HIPAA requires that covered entities follow privacy and security rules for protected health information (PHI), regardless of whether it is stored on paper or electronically. These include:

- Provide reasonable and appropriate safeguards to protect the integrity and confidentiality of health care information.
- Train personnel to protect confidentiality of health care information.
- Provide policies and procedures on security and confidentiality protective measures within the medical office.

Medical information can be shared by a wide range of people, both inside and outside the health care industry. Generally, access to medical records is obtained when the patient agrees to let others see them. Occasionally, patient medical information is used for health research and (in accordance with HIPAA) may be disclosed to public health agencies such as the Centers for Disease Control and Prevention (CDC). Specific names or other identifying information are not given to researchers.

Transporting Medical Records

Medical records should never be removed from the office or taken home to complete work. The risk of loss of confidential irreplaceable information is too great. In the rare circumstance that information is needed outside the office for a legitimate reason, obtain clearance from the office manager or physician. This can occur when records must be transferred between office locations or have been subpoenaed for legal purposes.

If providing information from a medical record has been approved, select only the information that is absolutely essential and, preferably, make a photocopy for the approved

recipient, leaving the intact original in the office. Medical records, whether originals or copies, must be transported in a locked briefcase or box with no data visible from the outside. The container should be clearly labeled with the recipient's name, address, and phone number. Ideally, a warning label is also attached, stating something similar to:

THIS PACKAGE CONTAINS CONFIDENTIAL INFORMATION THAT IS PROTECTED BY FEDERAL LAW. DO NOT OPEN. IF FOUND, PLEASE CALL 555-555-5555 IMMEDIATELY.

The person who is responsible for transporting the files must keep the files in her personal, physical control at all times. Upon delivering the package, the person who delivers it must have the recipient sign a receipt.

In the unthinkable situation that medical records are lost outside the office, the event must be reported as a HIPAA breach. Loss of medical records is a serious problem, and staff involved must take the required legal and ethical action of reporting it, regardless of any repercussions that may follow. The patient involved and the United States Department of Health and Human Services (HHS) must be notified regarding the nature and extent of the breach. In the event that more than 500 patients are affected, prominent media outlets in the area and certain other authorities also must be notified with the same information. Each medical office has a privacy officer who is responsible for reporting and managing HIPAA breaches.

Releasing Medical Records

Because patients own the information in their medical records, they have the legal right of "privileged communication" and access to their records. All new patients receive the medical office's Notice of Privacy Practices (NPP) on their first encounter and annually thereafter. In so doing, they consent to the use and disclosure of PHI for treatment, payment, and operations as defined by HIPAA. For all other uses, patients must explicitly authorize release of their records in writing. Authorization can be obtained

Professionalism

The Law



In 2013, updated regulations about HIPAA breaches went into effect. The definition of a breach was broadened, and enforcement standards were strengthened. HHS contends that no data breach is too small to be reported, and must be reported any time the security or privacy of PHI is compromised. Recent fines for noncompliance and resolution have ranged from \$50,000 to \$2.25 million.

JUDGMENT CALL

Samantha is the file clerk at Dr. Frasier's clinic. Her older adult neighbor, Mr. Wheeler, has requested a copy of his medical records. The office policy states that all patients are entitled to a copy of their records once per calendar year at no charge. Mr. Wheeler has already received his one set of copies for this year. Samantha knows he was recently diagnosed with lung cancer and referred to a specialist at the local teaching hospital. Mr. Wheeler asks Samantha if she will please not charge him for this set of records because his disability check is all that he has and he knows that his upcoming medical treatments will cost him several thousand dollars out of pocket. What should Samantha do?

using a paper or electronic form. An example of a release form appears in Figure 13-5. Procedure 13-1 outlines how to obtain a patient's authorization to release medical records.

Patients also can request a copy of their medical records. Because some records are large and require excessive duplicating time and expense, the physician may charge a reasonable fee to provide this service. Some states specify the allowable fee that may be charged.

Health care providers have specific procedures for handling and releasing medical records because of the confidential information contained in the records, as well as the

federal and state laws concerning HIV, mental health, and substance abuse information.

Persons Authorized to Release Records

Generally, a patient's medical record can be released only if that patient authorizes it. However, there are some exceptions to the rule. The following persons, in addition to the patient, usually can sign a release:

- Parents of minor children
- Legal guardian
- Agent (someone the patient selects to act on his or her behalf through a health care power of attorney)

Under some circumstances a minor, rather than the parent, must sign the release. Emancipated, married, and mature minors are allowed to sign a consent to release medical information. If you have questions about who can authorize release of patient records, check with your office manager.

Specially Protected Medical Information

Federal law provides special protection for substance abuse treatment records. There is one exception to the HIPAA standard that allows sharing of PHI for treatment purposes. Psychotherapy notes may only be disclosed with *explicit* patient authorization except when they are used by the originator of the notes or for a covered entity's supervised mental health education and training purposes.

Some state laws also provide special protection for HIV/AIDS information and mental health records. Such protections preempt the HIPAA privacy rule because they are more stringent than HIPAA regulations regarding PHI.

The Doctrine of Professional Discretion allows physicians to restrict the release of mental health records to their patients if the doctor believes the patient is not able to handle the information that is presented. These laws are meant to encourage people with these problems to obtain the medical treatment they need without fear. To obtain a copy of the records or have them sent somewhere else, the patient may need to sign a form that identifies the specific information being released.

Disclosure Without Authorization

Although medical records are confidential, at times they can be released without a patient's explicit authorization. In special cases, records may be released to the following:

- Health care workers who have a need for the records to care for a patient
- Qualified people or organizations that perform services, such as data processing, medical record transcription, microfilming, administrative functions, and other related services

| | |
|---|---------------|
| PEARSON PHYSICIANS GROUP Shania McWalter, D.O. 123 Michigan Avenue Parker Heights, IL 60610 (312) 123-1234 | |
| RECORDS RELEASE | Date _____ |
| To _____ Doctor | _____ |
| _____ | Address |
| I hereby authorize and request you to release | |
| to _____ Doctor | _____ |
| _____ | Address |
| all medical records in your possession concerning any examination, diagnosis, and/or treatment rendered to me during the period from _____ to _____ | |
| Signature of patient or closest relative _____ | |
| Relationship _____ | |
| Signature of witness _____ | Address _____ |

FIGURE 13-5 A release form for medical records.

PROCEDURE
13-1

Completing a Request to Release Medical Records

Objective ♦ Obtain a signed patient authorization to release medical records to another person or organization.

EQUIPMENT AND SUPPLIES

Electronic medical records release form and electronic signature pad, or paper medical records release form and black pen; information about the specific records to be released; name and address of the recipient; patient's mailing address, if patient is not physically present

METHOD

1. Gather all supplies and information. Log in to the EHR, and access the medical records request screen.
2. Verify the identity of the patient if you have not already done so.
3. Confirm with the patient the information requested, the intended recipient, and the recipient's address.
4. Fill in the corresponding fields on the form or screen for the patient's name, the information requested, and the name and address of the intended recipient.
5. Ask the patient to sign and date the form in the designated place.
6. Visually verify the signature and date to ensure the form was completed correctly.
7. Inform the patient approximately when the information will be released, according to office policy.
8. If the patient is not present, print out the form and highlight the spaces to be completed. Place the form and return instructions in an envelope, apply postage, and mail.
9. Save the screen in the EHR, and confirm that the request is to be sent to the medical records department. If using a paper form, route the completed form to the medical records department.
10. Thank the patient, and ask if there is anything else you can assist with.
11. Close the patient's electronic health record.
12. Log off the system.

- Qualified people or organizations for approved research and education functions
- Certain government authorities, as permitted or required by law, to investigate or regulate health-related issues such as child abuse, communicable diseases, and prescription drug abuse
- Certain lawyers and parties in a lawsuit if a patient's medical condition is an issue in the suit

Generally, strict rules apply to those who receive medical information. For example, they often are required to maintain procedures to protect the patient's confidentiality and prevent release of medical information and patient identity.

The Role of the Medical Assistant Regarding Medical Records

The medical assistant plays an important role in the management and maintenance of medical records to help ensure an efficiently run medical office. Four standards in the use of medical records must be followed:

- **Accuracy**—Because medical records are legal documents and can be used in a court of law, the physician

must be able to trust the accuracy of the data. Remember never to guess about information and double-check your work to help ensure accuracy.

- **Timeliness**—Do not wait to update records; make it an office habit to update records at the time of service or daily. This includes documenting telephone calls, filing lab reports, and documenting office visits.
- **Accessibility**—Make sure that the files are properly filed and easily accessible. If there is a patient emergency, for example, the medical history will be needed immediately.
- **Legibility**—Pay particular attention to numbers and spelling in both paper and electronic records. Spell out words rather than abbreviate. Handwritten medical records must be easily read by anyone.

Making Corrections in the Medical Record

Medical staff occasionally can make errors when documenting. When this happens, the errors must be corrected as soon as possible. The correction should be made by the individual who made the original entry.

PROCEDURE 13-2

Correcting an Entry in the Electronic Health Record

Objective ♦ *Correct an entry in the electronic health record in an accurate manner following legal protocol.*

EQUIPMENT AND SUPPLIES

Computer with electronic health record software

METHOD

1. Log in with your assigned user identification name and the password you previously created.
2. Identify the correct patient EHR in which the error was made.
3. Locate the error within the record.
4. Review the rules associated with the software you are using for correcting or making an addendum to a patient's record.

5. Make the appropriate correction within the medical record, according to the steps required within the software program.
6. Complete the signature process, according to the steps required within the software program.
7. Verify that the change made is correct and reflects the change you intended.
8. Save the changes.
9. Close the patient's electronic health record.
10. Log off the system.

If you notice a possible error by someone else, bring it to that person's attention in a tactful and professional way. Do not simply hand the person the medical record and say, "You need to fix this" or "You made a mistake in this record." Instead, approach the person in a nonjudgmental manner, such as "I have a question for you. When I was reviewing this record, I noticed that you entered the date January 15. That day was Sunday, so I wonder if you would take a look at this and determine if it is what you intended to write."

Specific procedures must be followed for correcting entries in both paper and electronic records. See Procedure 13-2 for making changes to a medical record.

Correcting Electronic Records

When documenting in an EHR, errors may be corrected before saving the entry by deleting as you would with any other type of computer program. The entry is automatically dated and signed electronically when saved.

When the correction is identified after the record is saved, the steps to make the correction depend on the software. Generally, the user marks the erroneous information for deletion and enters the correct information. The original entry is not truly deleted because, just as with paper records, the original entry must still be viewable. The correction may be viewed on a separate screen or may appear with a line drawn through the entry (Figure 13-6).

Patient complains of ~~right~~ left leg pain.

FIGURE 13-6 Errors in the electronic health record must be corrected as soon as possible. Most often, the user crosses out the error and enters the correct information, as shown in this example.

Correcting Paper Records

In a paper medical record, do not erase or totally obliterate the original error with products such as correcting fluid. Draw a single line through the error so the original entry can still be seen, and enter your initials and the date above the single line with the word "Error." Then write in the correction (Figure 13-7). If an error is made while using a typewriter, it should be corrected as any other typewritten errors are corrected. However, if the error is noted later, then you must draw a line through the error, enter your initials and

| Progress Notes |
|---|
| 5-20-XX 2:30 Patient presents for staple removal |
| S/P hysterectomy on 5-10-XX. Patient states "I'm |
| improving, yet still tire easily." Explained to patient |
| she may feel this way for the next 2 years <small>error 5-20-09 RG</small> |
| months. Rita Gill, RMA |

FIGURE 13-7 An example of a corrected chart notation.

| Progress Notes |
|---|
| 3-13-XX 10 ⁴⁵ AM wt. 135, BP 130/78 Temp 98.2°F |
| patient presents for follow-up visit Re: B.P medication |
| patient states he feels much better. Sam Smithick, CMA (AAMA) |
| 3-14-XX Late entry, to be added to 3-13-XX entry. Fasting |
| lipid profile drawn and sent to HBC lab: Sam Smith CMA (AAMA) |

FIGURE 13-8 An example of a late entry to the medical record.

the date, and write in the correction. Obliterating information is considered to be tampering with a legal document.

When an entry is made to the medical record later than the date on which it should have been made, list the date of entry and also describe the original date of service (Figure 13-8).

PRIVACY AND SECURITY OF EHRs

EHRs must comply with HIPAA requirements for privacy and security. Many people believe that EHRs are more secure than paper medical records because access is more easily controlled. However, if EHRs are accessed by unauthorized or malicious parties, severe damage can result.

Logins

EHRs provide the ability to identify who has entered and accessed patient information, which is not always possible with a paper-based record. Each computer user has a unique login to access the computer system. The login is the combination of a username and password to access the computer network. Additional logins may be required for different applications. Because each person has private login information, the software can track the activity of each user and identify who made the entry, change, or deletion. With paper records, it is not always obvious who last had a record

Professionalism The Life Span



It is important for the medical staff to be respectful of the various levels of comfort patients may have with storing their medical information on a computer. Staff members must take every opportunity to educate those who are not comfortable with the idea. Most individuals in their 40s and younger have grown up with computers and use a computer in their daily lives. However, patients in their 60s and older might not be as comfortable with the idea of using a computer to store their most personal medical information and prefer a paper chart because it is something they can touch and hold.

Professionalism The Workplace



Be aware of the policies in your office regarding access to your own or a family member's medical records. An employee who is also a patient of the practice cannot access their own or a family member's records. If an employee attempts to access either, that employee may be terminated. If you inadvertently access a family member's record, close the record immediately and notify your supervisor you have mistakenly accessed the record. Offices must have the capability to run audits and see which patient's charts have been accessed and by whom.

and who made the latest changes. Box 13-3 provides guidelines for creating and using usernames and passwords.

Each station must be logged off when the user is away from the desk, and computer screens must not be viewable by other patients while private patient information is displayed on the screen.

Laptops and Mobile Devices

Special security requirements are necessary when PHI is accessed with, or stored on, portable or mobile devices. Wi-Fi (wireless networking) allows users on mobile devices such as laptops, notebook computers, touchscreens, tablets, personal digital assistants (PDA), or even smartphones to access data.

Three levels of security must be observed: hardware, data transfers, and data storage. Hardware security refers to the physical device. Users must safeguard their mobile devices so they do not fall into the wrong hands. The device itself should be protected by a password so that it cannot be activated without an access code. All software or "apps" on the device must also provide one or more layers of password authorization to be used, just as they do on a desktop computer or workstation.

Data transfer security refers to the transmission of data. When mobile devices are used to access a central EHR database, the data being transferred is at risk of being intercepted during the transmission process. To protect against this occurring, data transfers must be encrypted, meaning that the data are scrambled in such a way that they cannot be intercepted by an unauthorized user. The process to encrypt and decode data is integrated into the application software used to access the EHR.

Data storage security refers to access to PHI. There may be times when users need to download and store PHI on the mobile device itself. Only PHI that is absolutely necessary should be stored on mobile devices. PHI should be

BOX 13-3 | Password Guidelines

Medical assistants need to create or update their passwords frequently for various computer systems. Each application has its own requirements for the formatting or construction of the username and password. It is important to know how to create a secure password that cannot be guessed by unauthorized parties.

1. When accessing a system for the first time, the system administrator usually provides a temporary login. This is a username and temporary password that you change the first time you access the computer system.
2. The username is often assigned by the system administrator to provide consistency among all staff members and ensure that no username is repeated. Example: The username for Mary R. Jones could be **mary.jones**, **jones.mary**, **mjones**, **mrjones**, or a similar combination of the first and last names.
3. Enter the username in the box provided on the screen when prompted by the software. Pay special attention to capitalization and punctuation, such as a period that may divide the first and last names. Some systems are case-sensitive, meaning that you must use capital letters and lowercase letters as provided by the system administrator. Press the Tab or Enter key as instructed.
4. Enter the temporary password in the box provided on the screen. Pay special attention to key the letters and numbers accurately. For security reasons, you are not able to see the actual characters you type on the screen. Instead you see a dot (.) or star (*) for each character entered.
5. You will be prompted to enter a new, permanent password. You are usually given instructions regarding how many characters in length the password should be, and the type of characters required. An example would be 8 characters long, including at least one letter, one number, and one special character such as ! @ # \$ % ^ & *. Sometimes, you may be required to use at least one uppercase and one lowercase letter. Do not create passwords that would be easy for someone else to guess, such as your name, the name of your child or pet, your birth date, or your phone number.
6. An example of a good password is **brWd84*%** because it contains a capital letter, three lowercase letters, two numbers, and two special characters. To make it easier to remember, you could enter only the consonants or only the vowels from a word you can remember, such as a favorite place.
7. The system prompts you to enter the new password a second time. This ensures that you typed what you intended to type. If you do not enter the exact same characters both times, the system presents an error message stating that the passwords do not match. Reenter the original password, and then enter the duplicate again.
8. Systems with highly sensitive information, such as EHRs, may require you to change your password periodically, such as every 90 days. Systems can keep track of passwords you have used in the past and may prohibit you from reusing a previous password or creating a password that is too similar to your current one. Frequently changing passwords can be a challenge. One way to meet these requirements without forgetting the password is to keep part of the password, such as the letters, the same, and then change the numbers and special characters.

deleted as soon as possible after the need has been fulfilled. The stored data must be encrypted to prevent unauthorized access. If the data were not encrypted and the device fell into the wrong hands, the data could potentially be stolen. Confidential medical details could be revealed, and identity theft could also occur. Either of these incidents would be a HIPAA violation that must be reported to authorities.

Backing Up Electronic Health Records

Medical offices must use data backup systems to safeguard the information contained on office computer systems, including patient medical records. This is typically done on a daily basis and, in most offices, the computer backup system is programmed to execute automatically. By having daily backup files, the medical office is not as likely to lose computer data, even if the entire computer system goes down. Data backup is discussed in the chapter titled "Computers in a Medical Office."

DOCUMENTATION FORMATS

To create an organized medical record that multiple providers can access and use, each office must establish an organizational scheme or documentation format. The documentation format specifies where in the medical record various types of information are stored and provides an outline that providers should follow when documenting an encounter. Each practice uses a format specific to its needs, so everyone in an office should follow the same charting system.

The most common documentation formats are

- Chronological medical record
- Problem-oriented medical record
- SOAP charting
- Source-oriented medical record

See Box 13-4 for a summary list of standard categories and reports that are covered in more detail in this chapter.

- Patient's past medical records
 - History and physical
 - Insurance information
 - Office notes
 - Progress notes
 - Telephone messages
 - Pathology results
 - Nursing notes
- Medications
- Physician orders
- Radiology reports
- Laboratory reports
- Operative reports
- Consultation reports
- ECGs
- Miscellaneous

Chronological Medical Record

The **chronological medical record** follows the patient over a period of time, with each visit consisting of a new entry by date, rather than by symptom or diagnosis. Although this is one of the most common types of medical records, it does make some diagnoses, such as hypertension, more difficult to track through multiple visits. For such diagnoses, a problem-oriented medical record might be more appropriate.

Problem-Oriented Medical Record

The **problem-oriented medical record (POMR)**, developed by Dr. Lawrence Weed in 1970, identifies patient problems and organizes the chart by those problems.

The functional aspect of this type of charting is the patient problem list found at the front of the chart (Figure 13-9). As new problems and diagnoses are identified, they are noted on the problem list, helping the health care provider to identify trends in the patient's medical history or emerging diagnoses. POMR also provides health care providers and physicians who do not already know a specific patient an overview of previous visits and problems at a glance. A POMR has four parts:

- **Database**—Consists of the physical examination, the patient history, and the results of baseline laboratory or diagnostic procedures.
- **Problem list**—List of patient problems that is kept in the front of the chart much like a table of contents would be. The problem list assigns each problem a number with the date. The problem can be further explained by information in the database. Each problem the patient has experienced is titled and numbered in the problem list. Because each patient problem is numbered, that number can be referenced throughout the medical record when needed. Throughout the rest of the history, problems are referred to numerically. If one is resolved, the date of resolution is placed next to the problem listed. If a

new problem arises, it is assigned a number and listed with the date.

- **Plan**—Indicates a written plan for each numbered problem identified on the problem list. The plan may include tests to be ordered, treatment plans, or plans for patient education about specific problems. The treatment plan is a very important part of the medical record because it tells what is intended for the patient. Each treatment plan should have a title and should reference the problem number with which it is associated.
- **Progress notes**—Made up of several sections that follow a specific format; the first letter of each section title (Subjective, Objective, Assessment, and Plan) spells out the word SOAP. Thus, this portion of the POMR is known as SOAP notes. Sometimes E is added to create SOAPE if evaluation is completed. All progress notes should be maintained in chronological order. Each progress note also references the patient problem number.

SOAP Charting

The **subjective, objective, assessment, and plan (SOAP)** charting method, as just discussed, organizes the progress notes within documentation of an encounter into four distinct parts: subjective, objective, assessment, and plan. The subjective information gathered from the patient—the things that the patient believes he is seeing a physician for—is usually the same as a chief complaint (CC). This usually includes statements the patient makes about symptoms the patient has experienced, such as pain or dizziness or anxiety. The objective information is composed of the data gathered during the visit—such as vital signs, weight change, fevers, blood work, physical examination results, and any other observable and measurable data. The assessment is the physician's preliminary diagnosis. The plan section of the chart discusses the strategy for care of this patient (Figure 13-10). The SOAP method of documenting a medical record is described in Table 13-1.

| PROGRESS NOTES | | | | | |
|-------------------------------|----------------|--|---|---|---------|
| Patient's name: Jessica Lopez | | | | | Page: 1 |
| Date | Problem Number | S | O | A | P |
| 3/12/05 | 1 | I'm having dizzy spells and have not been taking my BP med." | | | |
| | | BP 170/110 both arms, lying down, sitting & standing; WT. 202# | | | |
| | | Hypertension | | | |
| | | Rx for Norvasc 5mg daily; to monitor BP and return in 1 week | | | |
| | | for BP check; placed on 1200 calorie diet to lose 20# | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

FIGURE 13-10 An example of SOAP charting.

TABLE 13-1 | SOAP Charting Description and Examples

| | | |
|----------|---|--|
| S | Subjective symptoms provided by the patient or family. The actual patient's words are recorded. | Example: "I'm thirsty and eating all the time, but I'm not gaining any weight. I feel tired all the time." |
| O | Objective findings from vital signs, physical examination, and laboratory and diagnostic tests. | Example: B/P: 158/96; T: 98°F; P: 76; R: 16 Skin turgor (resiliency) poor. Wt. 10# less than 6 weeks ago Urine 4 + sugar, FBS positive |
| A | Assessment, including the physician's diagnosis. | Example: Uncontrolled diabetes |
| P | Plan including recommended treatments, further tests, medications, consultation, surgery, and physical therapy. | Example: Dx: Lab tests for diabetes Tx: Begin diabetic diet and insulin. Instruct on diet and exercise follow-up. |

A—Diet and medication effective

P—Continue medication, monitor blood sugar level daily, adjust insulin levels per instruction, return visit in 2 weeks

Problem No. 2: Hypertension

S—Patient states no complaints related to high blood pressure

O—BP 138/86, down 10 points in past 3 weeks

A—Medication effective

P—Continue with medication and patient monitor of BP weekly; come in for check in 2 weeks

Source-Oriented Medical Record

The **source-oriented medical record (SOMR)** is commonly used in medical clinics. Patient information is organized in sections for various purposes, such as history and physical, insurance, progress notes, medications, laboratory, and consultations. Information in each section is maintained in reverse chronological order with the most recent information seen first. Progress notes are included with each patient encounter, whether it is an office visit, telephone call, or written communication. Each office determines which sections to be used and in what order they are to appear in the

medical chart. With this method, it can be more complicated to identify and locate past medical problems, treatments, and results.

COMPONENTS OF THE MEDICAL RECORD

A standard medical record is one of the most important items in an office setting. It is imperative that you be familiar with all components of it, such as medical forms and reports, to maintain the integrity and accuracy of patient records. Each patient's medical record contains the same categories of material, but information is unique to each patient. For example, all patient charts contain a patient registration form and family medical history, but not every patient has a consultation report from another physician or a surgical report. Medical reports are filed in the medical record with tabs that label the source, such as lab, X-ray,

consultations, and special studies. If information is not properly organized in the patient's medical record, errors can occur. It is very important that you organize the patient's medical record according to facility policy. Procedure 13-4 outlines how to create a patient's medical record. Procedure 13-4 explains how to organize a patient's medical record.

Patient Registration

The patient registration form usually includes demographic information, such as the patient's full name, address, contact information (including home phone, work phone, cell phone, and e-mail address if applicable), date of visit, age, date of birth (DOB), Social Security number, driver's license number (if applicable), medical insurance information, and person responsible for payment. The form should also request the patient's occupation, marital status, number of children (if applicable), and emergency contact information.

PROCEDURE 13-3

Creating a Patient's Medical Record

Objective ♦ Establish a new medical record file for a patient.

EQUIPMENT AND SUPPLIES

EHR software; patient registration form; file folder and forms (for paper records)

METHOD

Electronic Records:

1. Log in to the EHR software using the username and password previously created.
2. Select the menu item to create a new patient or a new chart.
3. Refer to the patient registration form to complete the patient information requested on the screen, such as name, address, birthdate, and so on.
4. Save the information.
5. Visually confirm that the record has been created by the EHR system.
6. Identify the medical record number. Write it on the patient registration form.
7. Scan in or link any existing information, paperwork, documentation, etc. according to procedures for the EHR software.

8. Save the medical record, and sign out of the system.

Paper Records:

1. For paper medical records, identify the medical record number following office procedures and write it on the patient registration form.
2. Insert the patient registration form in the designated location in the front of the file.
3. Create a file folder label with the patient's medical record number or name, following office procedures.
4. If using a preassembled chart, visually check that all the required forms appear in the chart, in their proper locations, according to office policy.
5. If necessary, collect the necessary or missing forms and insert in the designated location in the chart, according to office policy.
6. Insert any existing completed paperwork for the patient in the designated location.
7. File the chart, following the filing protocol outlined in office policy.

PROCEDURE 13-4

Organizing a Patient's Medical Record

Objective ♦ Update the patient's medical record by filling new information in the correct place and correct record.

EQUIPMENT AND SUPPLIES

Patient medical record; assorted documents (paper or electronic) for filling in record

METHOD

Electronic Records:

1. Log in to the EHR with your username and password.
2. Access the record of the desired patient. Confirm the medical record number, patient name, address, and date of birth.
3. Access the menu for importing or linking external documents.
4. Follow the onscreen prompts or menu selections to scan in paper documents or link to existing electronic files. Ensure that each file is associated with the correct purpose, such as laboratory results or consultation reports.
5. When prompted for a date for the record, enter the date the report was issued, not today's current date. The EHR

will automatically sort the records in chronological or reverse chronological order, as designated by the user.

6. Verify that all documents have been scanned or imported. Exit the patient's record.

Paper Records:

1. Verify that you have the correct patient record for the patient documents you have been given. Confirm medical record number, patient name, address, and date of birth.
2. File documents in reverse chronological order with the most recent record at the beginning of the section, in the correct areas of the file, according to your facility policy. For example, file laboratory reports with other laboratory reports within the lab section, and with the most recent report on top.
3. Return the medical record to the correct place in alphabetic or numeric order with other patient files.

Family and Medical History

The patient's family and medical history is listed on a form separate from the registration form. This information should include the patient's current medical problem with details of present illness (CC), as well as family medical history, patient's past medical history, past surgeries, allergies, and current prescription and over-the-counter medications. The family and medical history form should request a list of herbal medications and recreational drugs used by the patient. It also should contain the patient's social and occupational history, including the amount of exercise done by the patient, whether the patient uses tobacco and the type of tobacco product, and alcohol use.

Managed care insurance plans often require that the patient's current chief complaint be entered into the medical record using the patient's own words. When recording the patient's own words, be sure to use quotation marks. Relevant past family and social history is also vital, as well as the patient's medical history. Inventory of body systems also is usually included as part of the patient's history (Figure 13-11).

Physical Examination Results

The comprehensive physical examination screen in an EHR, or form in a paper chart, provides the content and results of the examination, such as the patient's general appearance,

FIGURE 13-11 The patient describes the current problem and medical history form on a separate form.

Professionalism

Cultural Considerations



The medical chart contains all information that pertains to a patient. In addition to storing medical history and demographic and insurance information, the medical chart can record information about a patient's cultural background, such as a patient's spoken language, if it is not English, the need for an interpreter, and preferences regarding written, verbal, and nonverbal communication.

nutrition, and blood pressure (BP), as well as the examination of the head—eyes, ears, nose, and throat (EENT)—mouth, and scalp. Results of examination of the neck and thyroid; thorax; breast; heart and lungs; abdominal, pelvic, genital, and rectal areas; and skin examinations are recorded. Lymphadenopathy (abnormal enlargement of the lymph nodes), as well as overall impression and treatment plan, are also documented. Not all patients receive general physical examinations.

Diagnostic Test Results

All results from diagnostic tests performed on patients in the office, a laboratory, or a hospital must be tracked for easy accessibility, should the physician need to consult them (Figure 13-12). In an EHR, they should be scanned in if they are not already linked. In a paper chart, test results must be filed in the appropriate section of the chart. Reports from various organizations will have a slightly different appearance; for example, laboratory results issued by different labs will be formatted slightly differently. Distinct types of reports also appear differently; for example, a laboratory report looks different than a hospital report. To identify the

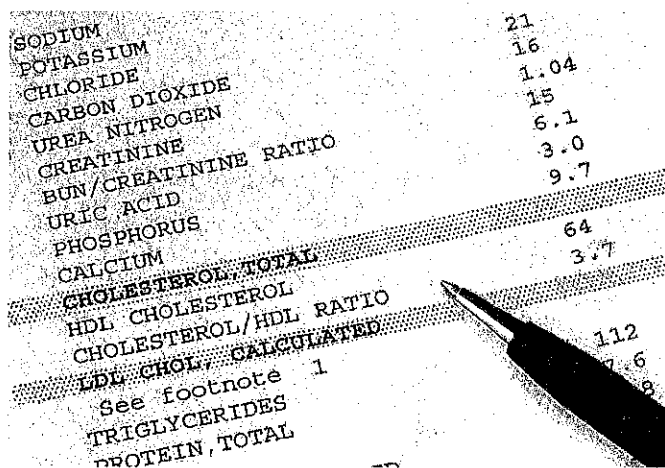


FIGURE 13-12 Laboratory test results.

Professionalism

The Life Span



For patients under the age of 18, it is especially important to document the name of the person responsible for any balances due the office. For children of divorced parents, it is possible that the parent bringing the child to the office for the visit is not the parent responsible for the copays or coinsurance. Depending on what is determined in the divorce decree, it is possible that one parent has primary custody but the child is covered on the other parent's medical insurance. Be sure to communicate this information to the billing department.

type of report, medical assistants must read the name of the report and the organization that issued it.

Informed Consent Forms

A signed informed consent form documents that a patient understands and consents to a treatment offered and has knowledge of the potential outcome and side effects of that treatment, including the expected outcome if the treatment is not performed. The form must contain the patient's signature, the physician's signature, a witness's signature, and the date. Moreover, it is important to note that the patient may withdraw consent if that patient so wishes. Should a patient choose to withdraw consent or refuse a procedure, it must be clearly noted in the patient's chart. Some medical offices require a patient to sign a "Refusal of Treatment" form.

Diagnosis and Treatment Plan

The diagnosis and treatment plan should include the physician's diagnosis (statement of what is wrong with the patient), the plan to care for the problem, and all options and instructions presented to the patient.

Patient Correspondence and Follow-Up Care

Any patient correspondence sent by the medical office, including procedures, follow-up visits, medical office care, and notations involving the patient, should be included in the patient's medical record. The date each piece of correspondence was mailed should be noted in the chart, along with the initials of the individual who completed the action. Documentation of telephone calls—often a separate log—as well as correspondence with or about the patient from all sources, such as laboratories, health care agencies, and referred consultations, are also added to patient records. Any correspondence received from the patient should be scanned in or filed.

Clinical Progress Note

A clinical progress note is the physician's narrative description of updated findings and treatments, such as the SOAP note discussed earlier in this chapter. Progress notes supplement documentation of the comprehensive history and physical. They are commonly used for inpatient stays in which the physician sees the patient each day and does not need to perform a full examination each time, or an outpatient seen frequently for a chronic condition.

Flow Sheet

Flow sheets document findings and treatments through the use of check marks and short notes rather than a longer text-based narrative. They help consolidate a large amount of details, such as vital signs, onto a single page for quick reference.

Consultation Report

In many situations, a physician asks another physician to provide an opinion on a patient's case. Typically, the physician requesting the consultation, also called the attending physician, sends a letter of introduction to the physician who will provide the opinion, also called the consulting physician. The letter of introduction includes a brief synopsis of the tests and results already performed. The consulting physician generally examines the patient and then dictates a report. The report is then sent to the attending physician (the requesting physician). The consultation report typically includes the following:

- Patient's name and medical record number
- Date of consultation
- Medical transcriptionist's initials
- Referring physician
- Reason for the consultation
- Physical and laboratory evaluations
- Consulting physician's impression and recommendations

It is appropriate to close this report, which is supplied in letter format, with a complimentary close, such as "Thank you for allowing me to participate in the care of this patient."

Operative Report

The operative report describes a surgical procedure. The surgeon is expected to dictate this report as soon as possible, preferably immediately after the procedure is completed. The heading of the report lists the surgeon's name, date of procedure, name of the procedure, preoperative diagnosis, and postoperative diagnosis. The body of the report is a

narrative that describes the actual procedure in detail, including the following information:

- Type and amount of anesthetic agent used
- Location and length of incisions
- Layers of skin and tissue that were incised
- Types of instruments used
- Tissues and organs (if any) removed
- Structures visualized
- Gross (naked eye) observations and findings
- Materials that were used in closing the wound
- Estimated amount of blood loss
- Sponge and needle count

The report concludes by stating the condition of the patient at the end of the procedure, such as "Patient tolerated procedure well," "Patient awake and responding," or "Patient taken to recovery room." Any specimens sent to pathology are also identified.

Pathology Report

The pathology report is generated by the pathologist as the result of examining tissue and organs removed during a surgical procedure (such as a biopsy) or an autopsy. A pathology report focuses on microscopic (histology and cytology) findings, as well as gross (naked eye) description of tissues or organs. This report is related to disease findings and not laboratory findings, which are conducted on body fluids. An autopsy report is a pathology report generated after a patient's death to determine the cause of death.

Radiology Report

A radiology report, completed by a radiologist, documents results of diagnostic procedures, such as X-rays, CT (computerized tomography) scans, MRI (magnetic resonance imaging) scans, nuclear medicine procedures (scans of bone, thyroid, and other body parts), and other fluoroscopic examinations.

Discharge Summary

The discharge summary is completed by the attending physician for every hospitalized patient and summarizes the hospitalization. It explains why the patient was admitted, a summary of the patient's history, and a review of what occurred during the hospitalization. A discharge diagnosis is included in this report, and the patient's condition on leaving the hospital is noted.

Charts, Tables, and Graphs

Some medical reports are accompanied with charts, tables, or graphs that summarize trends in the patient's condition

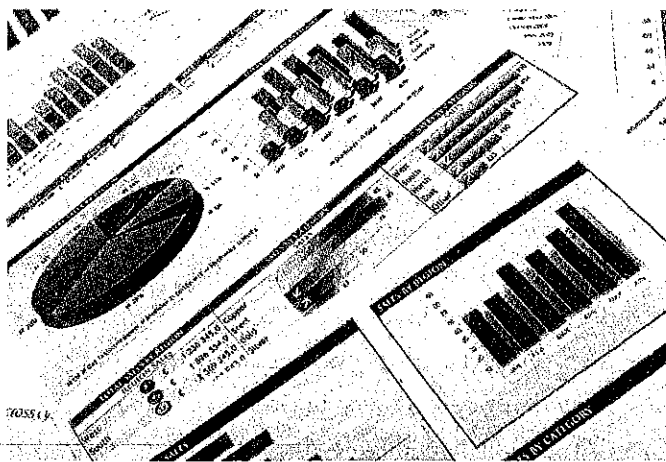


FIGURE 13-13 Charts, graphs, and tables can show trends in a patient's medical condition.

and compare them to averages. For example, laboratory results might show a trend line of a patient's glucose or cholesterol over a period of time with a comparison to the normal values (Figure 13-13).

Additional Reports

Other reports may be required concerning a patient, such as an emergency room report, a psychiatric note, and results of special procedures, such as a cardiac catheterization or an autopsy.

Medical Transcription

Offices using paper charts might use dictation and medical transcription to create the medical record. The physician verbally dictates information regarding a patient encounter, such as a physical examination or operative procedure, which is stored in an electronic audio format, such as a recording tape, CD, electronic chip, or other device. The transcriptionist listens to the audio file and types the exact information into a word processor or dictation program. The resulting document is printed and stored in the patient's medical chart, if physical charts are maintained, or transferred electronically to the EHR, if electronic health records are used.

Medical transcriptionists are medical professionals who have excellent keyboarding and grammar skills, knowledge of medical terminology, and a desire for accuracy and efficiency. The medical transcriptionist must understand words, know where and how to apply them, and use correct English grammar. This includes an understanding of etymology, phonetics, synonyms, acronyms, antonyms, homonyms, and eponyms.

Medical records must be professionally prepared, following appropriate formats. They should be free of errors and correctly filed. Medical records are always subject to possible subpoena by a court of law. The same professional standard

relating to confidentiality is necessary when handling transcription, because patient health information is involved, even though the transcriptionist may never see the patient.

IMPLEMENTING AN EHR SYSTEM

When medical offices decide to implement an EHR system, it is important to have a plan. Although you are not responsible for selecting and implementing an EHR system, you are an important stakeholder who will be affected by changes to it. Other stakeholders are physicians, business office staff, patients, and even suppliers and payers. Medical assistants can provide valuable input into what functions are needed for a smooth patient care process, office efficiency, and security of PHI regulated by HIPAA. They also can advocate for features that make it easy for patients to access their own health information.

The conversion from paper to EHR format typically is done over a period of time. Some clinics are able to use a scanner to scan documents from the patient's paper medical record to the electronic record. Other clinics might need to enter information from the paper chart to the electronic record manually. The process depends on the type of EHR software being used and the preferences of the medical staff.

The United States Department of Health and Human Services recommends six steps to implement an EHR system, as described next.

Step 1. Assess the Practice Readiness

The first step in EHR implementation is to evaluate the goals, needs, and financial and technical readiness of the medical practice. Consider the following areas:

- Are administrative processes organized, efficient, and well documented?
- Are clinical workflows efficient, clearly mapped out, and understood by all staff?
- Are data collection and reporting processes well established and documented?
- Are staff members computer literate and comfortable with information technology?
- Does the practice have access to high-speed Internet connectivity?
- Does the practice have access to the financial capital required to purchase new or additional hardware?
- Are there clinical priorities or needs that should be addressed?
- Does the practice have specialty-specific requirements?

The assessment step helps provide a good understanding of the current strengths of the practice and areas that should be improved before implementing an EHR. Often, these relate to patient quality, patient satisfaction, practice productivity and efficiency, improved quality of work environment, and, most important, the overall goal: improved health care.

Step 2. Create a Plan

Planning draws on the information gathered during the assessment phase to outline the practice's EHR implementation plan. Some of the issues that must be considered are the following:

- Which processes and functions will be implemented first, second, third, and so on?
- Will historical patient records be scanned into the EHR, or will existing records continue to be accessed on paper with only new encounters to be stored in the EHR?
- Will a dual system be used during the transition, meaning that records will be maintained both on paper and in the EHR until staff are sure the EHR system functions as expected?
- Who will provide the training?
- How long will implementation require?
- How much of staff members' time will be required to make the transition?

Step 3. Select or Upgrade to a Certified EHR

There are a number of steps involved in choosing the right EHR system for your practice. Eligible health care professionals and eligible hospitals must use certified EHR technology to achieve meaningful use and qualify for incentive payments. Medical offices may select an EHR system based on the system(s) used by major hospitals in the community. This strategy enables physicians to access patient data from the office or the hospital. They can review patients' medical histories with other providers who also use the same hospital.

Step 4. Conduct Training and Implement an EHR System

EHR implementation involves the installation of the EHR system and associated activities such as training, mock "go-live," and pilot testing. The EHR implementation plan and schedule (developed during the planning phase) should be followed and executed during this phase. Software companies that sell EHR software should provide the medical office with training for the staff to learn to use the

system. This training should be attended by everyone within the office who uses the software, including the physicians. Often, one member of the medical office staff is designated as a mentor or in-house resource person for using the EHR system. This person may receive additional training. In addition, training materials, such as manuals and DVDs, should be supplied for use in training future staff members. Software companies should supply the office with contact information to reach a technical support person in the event a question or concern with the new software arises.

Step 5. Achieve Meaningful Use

To be eligible for financial incentive payments, providers must demonstrate meaningful use of EHRs as defined by the HITECH Act. This is accomplished over a period of several years and involves meeting criteria established by ONC.

Step 6. Continue Quality Improvement

This final phase involves reassessing what you have learned from training and everyday use of the system. It emphasizes continuous evaluation of your practice's goals and needs after the formal EHR implementation period has concluded. The goal is to continue improving workflows that achieve the individual practice's goals and needs while leveraging the functionality of EHRs. Often, what happens during the implementation phase is very different from what was planned. The practice needs to continuously evaluate its processes to ensure that the practice is functioning efficiently to achieve staff and patient satisfaction.

Professionalism The Law



It is possible that the medical office where you work may be the only practice in the area that has converted to an EHR system. Other physicians in the area may have plans to convert to an EHR system but may still be using paper. When another physician forwards information such as a consult notice or laboratory results on a mutual patient, it arrives as a paper document. To convert the information on paper into an electronic format to be used in your office, the paper must be scanned and entered into the EHR and flagged for the physician to review. After the information has been entered into the EHR, the original document may either be stored securely or shredded, according to the office policy. If the policy states that paper documents are to be destroyed, the document should be shredded, either on-site or by the company hired to accomplish this task.

FILING, STORAGE, AND RETENTION OF PAPER MEDICAL RECORDS

Choosing the type of file system for paper-based medical forms and reports, in accord with the file folder coding system used in the office, is an important decision, because all files must be maintained within that system. The three categories of files or records in a medical office are active, inactive, and closed:

- **Active records** are those of patients who have been seen within the past three years and are currently being treated. Each medical practice has its own policy regarding what constitutes an active file, but the range is usually three to five years.
- **Inactive records** are those of patients who have not been seen within the past three years or another time period determined by office policy. These files are still maintained by the office but are generally kept in a separate storage file cabinet, which may be located off-site. These patients have not received a formal notification that the physician has terminated caring for them. They may return when a medical problem develops.
- **Closed records** are those of patients who have actively terminated their contact with the physician. This occurs when they move away or ask to have their records sent to another physician, or death occurs. These files can be placed in storage boxes or converted and saved on a computer disk, CD, microfilm, or other media. These files are referred to as archives because they are no longer needed but must be kept for legal reasons.

Fireproof cabinets are used to file documents such as patient records, tax records, insurance policies, and cancelled checks.

File Storage

Three types of file storage commonly used in a physician's office are vertical, lateral, and movable:

- **Vertical files**—Set up with two to four stacked pull-out drawers holding up to a hundred files per drawer. This type of file storage system is heavy and space consuming.
- **Lateral files**—Set up with shelves that allow files to be easily pulled off them. A color-coded system for visual recognition of files is often used.
- **Movable files**—Set up with electrically powered or manually controlled file units that move on stationary tracks in the floor. This type of open filing system saves space, because the file units can be moved close

together when they are not needed. This system is also useful for books and journals, because the floor can be reinforced when the track is installed.

File Folders and Guides

File folders are designed to meet special needs. The top or side edge contains tabs at spaced intervals. An identification label is attached to the top tab in a vertical file cabinet or to the side edge of the file in a lateral file cabinet. Sometimes these are color-coded for each physician or type of insurance.

Divider guides, made of heavy pressboard, separate files in drawers or on shelves into subsections using a letter (e.g., A, B, C, A-B, Invoices, etc.) or by patient number.

An out-guide is a placard that indicates a file has been removed. It is placed in the file drawer when a folder is removed to indicate where the folder should be returned. You can write on the out-guide who removed the file and when it was removed. This is especially helpful in a large office when trying to locate charts. The out-guide is usually a distinctive color, such as red, to indicate a file is missing (Figure 13-14).

Labels

The main purpose of the label on the file is to identify what is in the file, such as the patient's name or medical record number. However, the label also can include a color-coded stripe that can be used for other purposes, such as identifying the primary care physician.

Offices also use special alert labels on charts to bring attention to patient allergies, required copayments, and year of last visit. These alert labels help the staff find pertinent information at a glance (Figure 13-15). For instance, a patient's allergy to penicillin is quickly identified if a bright sticker that indicates the allergy is visible on the

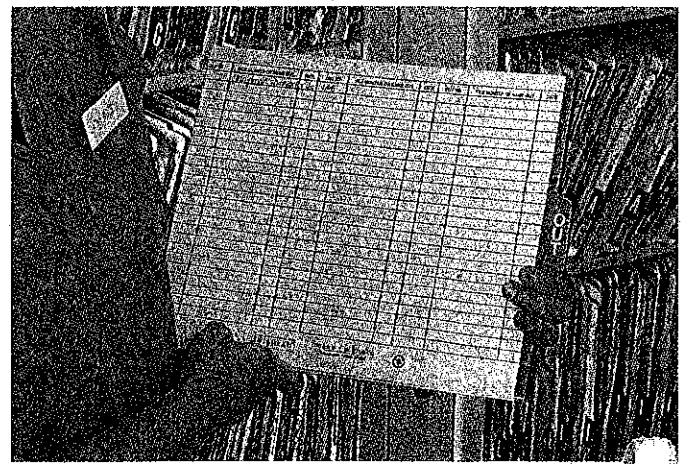


FIGURE 13-14 An example of an out-guide.

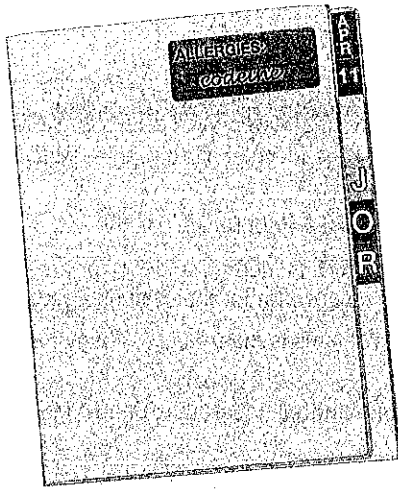


FIGURE 13-15 Using alert labels enables the medical staff to quickly identify important information such as allergies.

outside of the chart. It is important to update the information at every visit.

Color-Coded Label Systems. To decrease the number of misfiled charts and aid in file retrieval, many medical record departments use a system of color-coded file labels (Figure 13-16). This system assigns a unique color for each number from 0 to 9 and for each letter A to Z. Labels are placed on the edge of each file folder that correspond to the several characters of the medical record number or other identifier. Colored bands on each label are visible when the files are shelved. When files are correctly placed, the colored bands all have the same pattern. In this manner, any misfiles are easily seen. Filing records is simplified because the correct color band can be located on the file shelf. Two popular color-coding methods using a numeric system are the Ames Color File System and the Smead Manufacturing Company's method. Other color-coded methods use an alphabetic system.

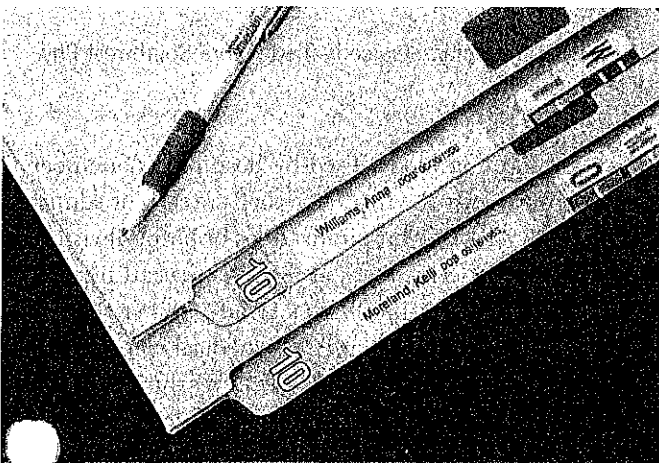


FIGURE 13-16 A color-coded record.

Professionalism



Your work reflects your professionalism. If patient records are strewn about the office, or if your system precludes your being able to quickly pull the file you need, it reflects negatively on your skills as a medical assistant. If your filing system is sloppy, then you are probably sloppy, too. File all records accurately, neatly, and in a timely manner.

Rules for Filing

Three commonly used systems for filing or indexing paper medical records are alphabetic, numeric, and subject filing. Because the numeric system provides the most privacy, it is most commonly used for medical records; however, alphabetizing is a component of all the methods and is explained in detail here. Color coding is used in all three systems to assist in locating files, refiling, and preventing misfiling.

Alphabetic System

Alphabetic filing sequences names in the order of the alphabet. In this system, the name Abbott would be filed before Bacon because A comes before B in the alphabet. If the first letter is the same, then move to the second letter in the name: Abbott is filed before Acker. This requires that medical assistants know the alphabet well and are quickly able to determine which random letter comes before another. There can be confusion when filing Jacob James Jergens Jr. and Jacob James Jergens III, or determining how correspondence from 23rd Avenue Clinic should be filed.

The key to alphabetic filing is to divide the names and titles into units (first, second, and third). The unit is the portion of the name that is used for filing or indexing purposes. For example:

- Unit 1: Last name (Jergens)
- Unit 2: First name (Jacob)
- Unit 3: Middle name (James)

The first letter of each unit is then used to determine where the file is to be placed. When filing a large number of files, use the first letter of the first unit and place all the files from A to Z in order. Then take each group of A files and use the second letter and consecutive letters to place them in order. If the entire first unit is the same, as in Smith, then move on to the second unit and third unit. For example, Smith, Loren comes before Smith, Michael, which comes before Smith, Michelle. Table 13-2 describes basic rules for

TABLE 13-2 | Rules for Alphabetic Filing

| Rules | Example |
|---|--|
| Names are filed: last name, first name, middle name (or middle initial). Each letter in the name is a separate unit. | Krause, Marvin K. is placed before Krause, Marvin L. |
| Initials come before a full name. | Brown, H. is placed before Brown, Henry. |
| Hyphenated names are treated as one unit. This applies to the names of individuals and businesses. | Amy Freeman-Smith is indexed under F for Freeman. It is considered Freemansmith for indexing purposes. |
| Titles (and initials) are disregarded for filing but placed in parentheses after the name. | Dr. Beth Ann Williams is indexed as Williams, Beth Ann (Dr.). |
| Married women are indexed using their legal name. The husband's name can be used for cross-referencing. | Mrs. Mary Jane Smith is indexed as Smith, Mary Jane (Mrs. John). |
| Seniority units, such as Jr. and Sr., are filed in alphabetic order. | Jacob James Jurgens, Jr. comes before Jacob James Jurgens, Sr. |
| Roman numeral designations are filed alphabetically under the letter "I." | Jurgens, Jacob James III is indexed before Jurgens, Jacob James, Jr. |
| Mac and Mc can be filed either alphabetically as they occur or grouped together depending on the preference of the office. Be sure that everyone follows the same rule. | Option 1: File each alphabetically as it occurs: Mabrey, MacBride, Martin, McAuliffe, McBride, McMartin; Option 2: File Mc as though it begins with "Mac": Mabrey, McAuliffe, MacBride, McBride, McMartin, Martin |
| Foreign language names are indexed as one unit. | Mary St. Claire is indexed as Stclair, Mary. Carol van Damms indexed as Vandamm, Carol. |
| If company names are identical, the address—by state, then city, then street—may be used in the index. The ZIP code is not used to index files. | ABC Drugs, 123 Michigan Blvd., Chicago, IL is indexed before ABC Drugs, 1450 N. Ash, Kalispell, MT. |
| If individuals' names are identical, use the birthdate or mother's maiden name. Avoid using an address, because that can change. | Mark Richard Jones is indexed as Jones, Mark Richard (05/12/65) and Jones, Mark Richard (02/12/89). |
| Disregard apostrophes. | Megan O'Connor is indexed as OConnor, Megan. |
| Business organizations are indexed as they are written. | Lincoln Memorial Hospital is correct. |
| Disregard short terms, such as <i>a</i> , <i>and</i> , <i>the</i> , and <i>of</i> . | The Whitefish Drug Store is indexed as Whitefish Drug Store (The). |
| Numeric characters are indexed before alpha characters. | 23rd Avenue Clinic is indexed before the Nineteenth Street Medical Center. A separate file is set up for all numeric files. |
| Names with religious titles, such as Sister Mary Murphy, are to be filed with the last name first, and then with the religious title. | Murphy, Sister Mary. |
| Compound words are filed as they are written. | South West Physician Service is filed before Southwest Physician Service. |

alphabetic filing. Procedure 13-5 lists steps to follow when using the alphabetic filing system.

Numeric Systems

A **numeric filing** system sequences folders in numerical order. A patient identification number is assigned to each patient's medical record. This generally is a six-digit number divided into three sections of two digits each (e.g., 05-72-21).

Identification numbers are assigned using either unit-number or serial number filing. A unit-number filing

system is most commonly used by hospitals. A number is assigned to patients the first time they are seen or admitted to a hospital. All other hospitalizations or hospital visits use the same number. This method requires that all records be kept at the same location. With a serial-number filing system, the patient receives a different medical record number for each hospital visit. The patient acquires multiple records that are stored at different locations. For example, a hospitalization, laboratory work, and a mammogram all receive different numbers and are filed within their own systems.

PROCEDURE 13-5

Filing a Record Alphabetically

Objective ♦ File a patient record in the correct order, using the alphabetic method for filing.

EQUIPMENT AND SUPPLIES

Patient record; alphabetic files

METHOD

1. Locate medical record files or medical record room.
 2. Observe the name on the record to be filed.
 3. Records are filed in alphabetic order by last name first, then first name, then middle name or initial. Each letter in the name is a separate unit. Locate the set of records containing the same last name as the record to be filed.
 4. Within the set of records containing the same last name as the record to be filed, locate the records with the same letter of the first name as the record to be filed.
 5. Using the alphabet as a guide, place the record to be filed after the record that comes before it in the alphabet but before the record that comes after it in the alphabet.
- A name with only an initial first name is filed before a full name. (Brown, H. is filed before Brown, Henry.) The filing rule "Nothing before something" is a useful tool here.
7. Hyphenated names are treated as one unit. (Mary Freeman-Smith is indexed as Freemansmith, Mary.)
 8. Disregard apostrophes. (Megan O'Connor is indexed as Oconnor, Megan.)
 9. Titles and initials are disregarded for filing, but placed in parentheses after the name. (Dr. Beth Ann Williams is indexed as Williams, Beth Ann, [Dr.].)
 10. Married women are indexed using their legal name. The husband's name can be used for cross-referencing.
 11. Seniority units, such as Jr. and Sr., are filed in numeric order from first to last.
 12. Numeric seniority terms are filed before alphabetic terms.
 13. After placing the file between the two records before and after it in the alphabet, check once more to be sure the file is properly placed.
 14. If there is a marker or out-guide in place of the removed record, then take out the marker when replacing the file.

The assigned numbers are kept in an accession record in which numbers in sequential order (1, 2, 3, 4, 5, 6...) have a name placed next to them as each new name is entered. This record can also be maintained on the computer.

There are several types of numeric filing that use identification numbers, including straight numeric filing, terminal-digit filing, middle digit filing.

Straight Numeric Filing. The simplest numeric method is the straight numeric filing system in which each record is filed sequentially based on its assigned number from 0 to 9. The numbers used in this system begin at 01 and continue upward.

| | | | |
|----------|----|-----|-----|
| Example: | 01 | 101 | 886 |
| | 02 | 102 | 887 |
| | 03 | 103 | 888 |
| | 04 | 104 | 889 |

In this type of system, the file space is depleted rapidly as files are added to one section. This requires constant reshifting of files to make room for new files.

Terminal-Digit Filing. Terminal-digit filing sequences folders based on the last two digits of the ID number, from 00 to 99, and evenly distributes the files within the entire filing system. This eliminates the need for frequent reshifting of files, providing enough space was designated when the filing system was set up. Filing using terminal digits requires dividing the files into 100 primary sections, starting with 00 and ending with 99. The three sections of numbers assigned to each file are designated as tertiary, secondary, and primary sections, respectively. To file a record with the number 05-72-21 using this system, find the file section matching the patient's primary digits (21). Within that section, match up the secondary digits (72) and file the record according to the tertiary digits (05).

| | | | |
|----------|----------|-----------|---------|
| Example: | 05 | 72 | 21 |
| | Tertiary | Secondary | Primary |

Middle-Digit Filing. Using the same six-digit numbering system as for the terminal-digit system, the middle-digit filing system places the middle digits as the primary

numbers. In this example, find the section marked 72, within that section find the 05 area, and then file the record according to the tertiary digit, 21.

| | | | |
|----------|-----------|---------|----------|
| Example: | 05 | 72 | 21 |
| | Secondary | Primary | Tertiary |

Subject Matter

Filing by subject matter is used for general files, such as invoices, correspondence, résumés, and personnel records. This method is adequate as long as the files are relatively small. If these files become large, then another method, alphabetic or numeric, must be devised.

Cross-Referencing

Because of the large number of files processed in a busy office and the confusion over surnames—(e.g., how stepchildren's names are filed for easy access), cross-referencing of files is recommended. Cross-referencing places an informational message in the file to alert the health worker that a file can be found under another name. For example, if Mrs. Henry Watts also uses her maiden name, Farideh Rahman, then a file insert into Henry Watts's file could state, "See Rahman, Farideh for Mrs. Henry Watts." Cross-referencing can be a simple but useful tool for finding and avoiding misplaced records.

Locating Missing Files

One of the most time-consuming and frustrating activities relating to medical records is locating a misplaced file, also referred to as a missing file. Ideally, everyone who takes a file from a cabinet should add that file name or number to a master file sheet. In addition, an out-guide should be placed in the file indicating a record was removed.

When a file cannot be easily located, it is important to conduct a thorough search of the office. It is absolutely essential that the missing file be located as soon as possible and returned to its proper location. Not only is the information needed by a staff member, you must ensure that the file is not in a location where it can be viewed by unauthorized persons. To locate missing files, consider these tips:

- Look at the file folders near the location where the missing file "should" appear in the file cabinet. It is possible for one folder to be mistakenly placed inside another folder.
- If the patient was recently in the office, or is scheduled for the current day or next day, look in the normal locations where such files are placed.
- Scan the file racks for folders that may be out of sequence. Use of color-coded file labels greatly simplifies this task.

- Check common areas, such as the copy machine, scanner, and fax machines.
- Check with the receptionist, transcriptionist, coding, and billing departments.
- Ask each staff member, including physicians, to conduct a thorough search of the desktops, inbox, and personal file drawers. Remind people to check inside other recently used files in case one folder was nested inside another.

The ability to locate files quickly is an indicator of quality assurance. When internal or external auditors review medical records for completeness and accuracy, they randomly identify which records to review from a master list of patients. Upon concluding the review of records, they also report to management the number of records that could not be located. A record that cannot be located for an audit represents a record that would not be found if needed to respond to a patient emergency or other request.

If a systematic search takes place, the file can usually be located quickly. However, sometimes a single piece of paper, such as a laboratory report, cannot be found because it has been mistakenly filed in the wrong folder. These are nearly impossible to locate. If it cannot be found, you must get another copy of the paper from the original source (e.g., a laboratory or radiology report).

The best way to avoid losing a file is to handle all records methodically and carefully.

Tickler Files

A tickler file is used to remind medical assistants of an event or action that will take place at a future date. The tickler file contains patients' names and telephone numbers, dates when action or activities should occur, and actions to take. The tickler files should be reviewed daily so that actions are taken on time (e.g., tickler files can be used as reminders to call patients to set appointments, to pay certain invoices, or to send fees for the physician's license renewals).

Collating Paper Records

Collating is the process of gathering and organizing information. All the outside reports must be available in the medical record before the patient's scheduled visit. Medical assistants need to collect all information pertaining to a patient who is scheduled to be seen by the physician—including all records, test results, and other information and reports—and organize it into appropriate sections of the patient's chart.

Pulling charts is usually done the day before the scheduled appointment. Verify that test results or reports have been

filed into the appropriate sections of the chart. It is important that this information be available when the physician sees the patient, especially because sometimes the sole purpose of the patient's visit is to follow up on those results. Automated offices may be able to generate an **exception report**, a computerized report that lists all procedures ordered but with no results on record. This facilitates the follow-up.

If information such as tests or lab results ordered at the last visit has not been received, you need to follow up. Call the appropriate facilities to retrieve the results. In the patient's chart, document the date, time, name of person with whom you spoke, and expected action regarding the requested information. You may take oral results and record them as a verbal report, but request that the hard copy results be faxed to the office as soon as possible. When you are provided with an oral report, document the information on a message pad and flag it for the physician's review, because the physician may request further reports depending on the findings. However, when the original physical copy of the report is received, place that in the patient's record as well. This is done quite often by the clinical medical assistant. In some offices and laboratories, a fax machine can be used to send reports between facilities.

Normally, reports should be organized, reviewed, and filed as they come in, to avoid a backlog or misplaced reports. This way, everything is ready for the patient's next visit and for any consultations that may be needed between visits. Each office should have policies and procedures for handling outside reports.

Long-Term Storage

Medical offices need to provide for long-term storage of medical records. Files must be kept safe from fire, flood, or other damage. This is often a challenge because of the amount of space required. Records may be maintained in their original hard-copy form or transferred to other media such as electronic (scanned images), **microfilm** (miniaturized photographs of records), or **microfiche** (sheets of microfilm). If the office does not have enough space to store the files internally, space can be rented in another office or building. Medical record storage also may be outsourced to a business that specializes in managing and housing medical documents. Investigate the business to ensure that it is reputable and HIPAA-compliant, and that the files will be safe and accessible.

Retention of Electronic Records

Requirements for long-term retention of patient data are the same for both paper-based and computerized records. The

advantage of EHRs is that data are more convenient and less costly to store, and the EHR can be located and accessed more easily.

Because computer data require a small amount of space compared with paper-based records, EHRs do not need to be converted to another format for long-term storage. Usually, a large amount of historical data can be maintained in the main EHR system. Data for patients who have left the practice can be archived so that they do not unnecessarily occupy disk space. Most software has a built-in function that removes unneeded data from the program and saves them in a compressed format that requires less space. In this way, the data can be accessed if needed but do not encumber the software.

Ideally, all medical records should be retained forever. However, this is impractical in many circumstances. Although there are no universal answers, the following can provide you with general guidelines:

- The medical record is critical in a medical liability action and its loss may considerably harm the physician in the defense of a claim. At a minimum, retain records until the statute of limitations expires.
- Each state varies somewhat on the legal time limits (statute of limitations) to keep records and documents. In many cases, the statute of limitations is two years, but the timing does not begin until the point of discovery of damage and the connection between that damage and the treatment. In some circumstances, this could be many years later. Special rules apply when treating a child or an incompetent patient, in which case the time period is longer.
- Most states require that all patient records be retained for two to seven years after the last treatment or seven years after the patient reaches the age of majority (age 18 or 21 in most states), whichever comes last.
- The American Medical Association recommends keeping medical records for ten years.
- In selected circumstances, you might consider saving the more complex records or those records with known serious patient problems for a longer period of time.
- Keep immunization records as long as practical, because patients may need to access them at a future date.

Destruction of Medical Records

If a physician cannot retain patient records indefinitely, consideration must be given to the method of destruction. As with any office policy, a medical record destruction policy

should follow a written procedure. The procedure should achieve the following:

- Outline the length of time records will be kept.
- Define which records will be kept on-site and which off-site.
- Designate a person to be responsible for deciding what to keep and what to purge.
- Produce a log that details which patient records have been destroyed and why, when, and how they have been destroyed.
- Provide a method of disposal (e.g., shred, pulp, or incinerate) that destroys all information in the record. Deleting information from an EHR simply removes it from the software application, but the data remains on the storage device and can be retrieved. If possible, physically destroy the storage medium, such as a disk or tape. Otherwise, you can use a HIPAA-compliant utility program that permanently removes any trace of the data from the storage media. It is best to hire an IT professional familiar with HIPAA standards to ensure the data is completely removed and irretrievable.

Patient confidentiality must not be jeopardized because of an inadequate method of destruction. Many medical offices hire the services of a business that handles the destruction of paper or electronic medical records. That service must agree to abide by HIPAA guidelines.

OFFICE FLOW WITH ELECTRONIC AND PAPER MEDICAL RECORDS

Although the functions of the medical office are the same regardless of whether electronic or paper medical records are used, the work flow is different. Table 13-3 compares the differences in patient flow when using electronic and

paper-based records. Two important differences in work flow are point of care documentation and computerized physician order entry.

Point of Care Documentation

Point of care documentation is the ability of providers to document the patient encounter in the examination room and enter information into the computer while the patient is present. This improves the quality of documentation, because physicians no longer have to remember what occurred during the visit when they document at the end of the day. In addition, the EHR screen prompts physicians to enter all required information and alerts them when an important item is missing. Lastly, the physician can ask the patient about any details necessary to complete the description of symptoms or the course of the illness (Figure 13-17).

Many medical offices have computer terminals in each examination room, which allow medical personnel to add information to the patient's EHR, download test results, or research past medication records while the patient is in the room. In some offices, the physician or medical assistant uses a laptop or portable electronic tablet to enter patient data into the computer system. In some cases it is possible to automatically enter vital signs and diagnostic test results from the equipment directly into the EHR.

Medical assistants also need to become familiar with how to document at the point of care, computerized physician order entry, how to make corrections in the medical record, and file retention and storage.

Computerized Physician Order Entry

Computerized physician order entry (CPOE) is the ability of providers to order tests, prescriptions, lab work, and referrals using the computer, rather than writing them on paper, mailing or faxing them, or placing a telephone call (Figure 13-18). Patients do not need to remember to take the order with them to their encounter because the office transmits it electronically. Not only is the order generated and sent electronically, it also is saved in the patient's EHR. Results are returned to the ordering physician and recorded in the patient's EHR.

Meaningful use criteria require a CPOE for a medical office to receive incentive payments. Only licensed health care professionals, including credentialed medical assistants, are allowed to enter orders into the CPOE system for it to count toward meaningful use. "Credentialed" means to obtain a certification or registration from a national credentialing organization, other than the educational institution and employer.

Professionalism The Life Span



Medical staff should respect the various levels of comfort patients may have with storing their medical information on a computer. Staff members must take every opportunity to educate those who are not comfortable with the idea. Most individuals in their 30s and younger have grown up with computers and use a computer in their daily lives. However, patients in their 60s and older may not be as comfortable with the idea of using a computer to store their most personal medical information and may prefer a paper chart because it is something they can touch and hold.

TABLE 13-3 | Comparison of Paper Medical Records and Electronic Health Records

| Process | Paper-Based Method | EHR Method |
|--|---|--|
| Schedule appointment | <ul style="list-style-type: none"> Determine whether the patient is new or established. Write down information such as patient name, address, telephone numbers, insurance information, and current complaint. Page through a paper scheduling book to find available appointments. | <ul style="list-style-type: none"> Access established patient information on the computer. Create the beginning of an electronic chart for new patients. Confirm and update patient name, telephone numbers, insurance information, and symptoms in the software program. Electronically search for available appointment times. |
| Verify insurance benefits | <ul style="list-style-type: none"> Call the insurance company to verify patient coverage. Write down information on a benefits verification form. | <ul style="list-style-type: none"> Electronically confirm the patient's health insurance coverage using secure Internet site or direct portal. Update coverage information in computer. |
| Send appointment reminder | <ul style="list-style-type: none"> Create and mail appointment reminder notice. Personally call patient to remind of appointment. | <ul style="list-style-type: none"> Software generates printed reminder notice to be mailed. Software calls the patient and leaves a brief message to remind the patient of an appointment. Software may set a reminder for office personnel to make the phone call. |
| Prepare new patient chart | <ul style="list-style-type: none"> Gather paper file folder, color-coded labels, patient registration form, forms needed by medical staff. Create medical record number. File chart in appropriate location until day of patient visit. Maintain separate physical charts for each family member. Create a new separate chart when a patient has workers' compensation or auto insurance claims. | <ul style="list-style-type: none"> Enter patient data into the computer, following prompts for required information. Software generates a new medical record for new patients. Medical record is immediately accessible whenever needed. Electronically link records for family members. Electronically link separate records for the same patient, such as medical and workers' compensation. |
| Prepare established patient chart for visit | <ul style="list-style-type: none"> Locate the patient's paper chart. The chart may be in use by another staff member or physician, or it may be misfiled. Add appropriate forms so it is ready for use the following day. File chart in appropriate location until day of patient visit. | <ul style="list-style-type: none"> Medical record is immediately accessible whenever needed. Multiple staff members may access the chart at the same time. |
| Complete patient paperwork | <ul style="list-style-type: none"> Ask patient to come in early to complete paperwork, or mail forms to patient in advance of visit. Review forms to ensure that all information is complete. File in patient chart. | <ul style="list-style-type: none"> Patient accesses the practice's secure website to enter needed patient information. Software alerts alert staff of any missing information. Complete patient information forms at kiosk in the medical office reception area. When the patient arrives in the office, escort patient to an examination room, where a medical assistant fills out the patient information form on the computer while the patient is present to answer any questions. |
| Room patient/ Take vital signs | <ul style="list-style-type: none"> Clinical medical assistant takes vital signs, such as blood pressure, pulse, and temperature. Write the information in the patient's paper medical chart. | <ul style="list-style-type: none"> Take the patient's vital signs, and enter the information into the electronic health record. Software records vital signs from measurement equipment connected to the computer system. |

(continued)

TABLE 13-3 | Comparison of Paper Medical Records and Electronic Health Records (continued)

| Process | Paper-Based Method | EHR Method |
|---|---|--|
| Perform physical examination | <ul style="list-style-type: none"> Physician reviews the forms the patient and medical assistant have completed. Physician documents encounter during and after the appointment. Physician may dictate findings, which are transcribed by a medical assistant or a transcription service, then added to the patient's paper chart. | <ul style="list-style-type: none"> Physician accesses the patient's EHR in the examination room. Physician documents findings and recommendations while interviewing and examining the patient. Documentation is complete at the end of the encounter. |
| Order tests or prescriptions | <ul style="list-style-type: none"> Write a prescription by hand and give to patient to take to pharmacy. Call pharmacy with the prescription request. Write an order for lab test or X-rays by hand, and give to patient to take to the laboratory or radiology facility of choice. Patient must remember to bring the written order to the appointment. | <ul style="list-style-type: none"> Enter prescription request into the EHR, electronically sending it to the patient's pharmacy and recording it in the patient's chart at the same time. Generate the order for lab tests or X-rays electronically, often with the ability to send the order to the radiology facility or laboratory of the patient's choice. When patient arrives for the lab test or X-ray, the facility accesses the order in the EHR and performs the procedure. |
| Provide health education literature to patient | <ul style="list-style-type: none"> Locate the appropriate brochures to give to patient. | <ul style="list-style-type: none"> Software prints a visit summary with appropriate health education information, based on diagnoses and tests selected by the physician. |
| Make referral | <ul style="list-style-type: none"> Phone the consulting physician to schedule appointment. Copy and send any needed medical records before the appointment. Consulting physician writes a summary report of the visit and mails to the referring physician. | <ul style="list-style-type: none"> Possibly schedule the appointment electronically. Consulting physician accesses EHR to review pertinent medical history. Consulting physician enters findings and summary report into EHR. |
| Receive test results | <ul style="list-style-type: none"> Test results are mailed to the office. File all reports in patient's chart. Pull the patient's paper chart and provide to physician to review the results along with the patient's chart. Monitor any test results not received. Follow up with patient by phone or letter to ensure test was obtained. Follow up with facility by phone or letter to request results. | <ul style="list-style-type: none"> Receive tests results electronically. Results are automatically linked to the patient's EHR. The physician is alerted by the system that results are available, which can be viewed on the computer. Software generates a report of tests ordered but no results received. Contact the facility electronically to request results. Software generates a telephone list or printed reminders to follow up with patient. |
| Contact patient for follow-up | <ul style="list-style-type: none"> Facility that provides the test mails a copy of the results to the patient. Call or write to the patient when follow-up is needed. | <ul style="list-style-type: none"> Send a secure e-mail to the patient regarding test results. Generate a telephone list for patients who need to be called about the results. Patient views the results, and physician comments online through a secure patient access portal. |
| Assign diagnostic and procedure codes | <ul style="list-style-type: none"> Staff pulls the patient's chart and assigns appropriate codes. May need to look in several sections of the chart to obtain all needed information. | <ul style="list-style-type: none"> Staff accesses the patient's EHR and views needed information. Software may generate preliminary codes for staff to verify, update, or change. |
| Bill insurance company | <ul style="list-style-type: none"> Complete paper billing forms or rekey all patient information into a standalone billing program. | <ul style="list-style-type: none"> Link EHR data to billing module, and submit claims electronically to insurance companies. |

Medicine Student Edition - Terry Chun 31 yr 3 mon Female - 05/14/06 09:45 (Initial Chart Entry-Existing Patient)

File Select Enter Options Forms Summary Graph Help

Exit Browse Medicin Search Lists Prompts Listsize LHM

Back Print MEGS ROS Forms Details FS form Flowchart Cite

Review of Systems | Medical History | Physical Examination | Outline View

Constitutional:

Generalized Pain ☐ Y ☐ N

Fatigue Tired Or Poorly ☐ Y ☐ N

Appetite ☐ Y ☐ N

Fever ☐ Y ☐ N

HEENT:

Headache ☐ Y ☐ N

Eyesight Problems ☐ Y ☐ N

Loss Of Hearing ☐ Y ☐ N

Sore Throat ☐ Y ☐ N

Cardiopulmonary:

Chest Pain ☐ Y ☐ N

Palpitations ☐ Y ☐ N

Difficulty Breathing ☐ Y ☐ N

Gastrointestinal:

Abdominal Pain ☐ Y ☐ N

Nausea ☐ Y ☐ N

Vomiting ☐ Y ☐ N

Diarrhea ☐ Y ☐ N

Urinary:

Pain During Urination ☐ Y ☐ N

Changes In Urinary Habits ☐ Y ☐ N

Neurological:

Sleep Disturbances ☐ Y ☐ N

Dizziness ☐ Y ☐ N

Depression ☐ Y ☐ N

Additional Notes (ROS):

Encounter Active Forms Patient Management

FIGURE 13-17 An example of an intake screen in an electronic health record.

Medicine Student Edition - Gary Yamamoto - 05/14/12 10:00 (Pre-visit Workup)

Select Enter Options Forms Summary Graph Help

Exit Browse Medicin Search Lists Prompts Listsize LHM Forms EBM Wave Print Goal Outcome

Back Print Chart MEGS ROS History Flowchart Grid Details Cite Order Rx

Sx Hx Px Tx Dx Rx Browse Edit

Dx: ANGINA PECTORIS (Tests)

- ☐ Comprehensive Metabolic Chem Panel
- ☒ (80051) Ordered an electrolyte panel
- ☐ Lipid Test Panel
- ☐ Total Cholesterol
- ☐ (93000) An ECG was performed
- ☐ Cardiovascular Stress Test
- ☐ Echocardiogram
- ☐ Isotope Perfusion Test - Cardiac
- ☐ Chest X-Ray
- ☐ Chest X-Ray Posterior-Anterior And Lateral Views
- ☐ MRI Cardiac Morph & Funct w/o Contrast W/ Stress In
- ☐ MRI Card Morph & Funct w/o Then W/ Contrast W/ S
- ☐ Serum C-Reactive Protein

Note View Outline View

Personal history

Behavioral: Not a current smoker.

Physical findings

Vital Signs:

| Vital Signs/Measurements | Value | Normal Range |
|--------------------------|----------------|---------------|
| Oral Temperature | 98.5 F | 97.6 - 99.6 |
| RR | 20 breaths/min | 12 - 20 |
| PR | 70 bpm | 50 - 100 |
| Blood pressure | 130/86 mmHg | 100-120/60-80 |
| Weight | 138 lbs | 125 - 225 |
| Height | 65 in | 64.96 - 73.62 |

Tests

Laboratory Studies:

Electrocardiogram:

An ECG was performed.

Plan

- An electrolyte panel

Entry Details

A lipid profile was performed

Prefix Modifier Result Status Episode Onset Duration Value Unit

ADT Encounter Forms Manage Nursing

FIGURE 13-18 An example of an EHR screen used to order a laboratory test.

PROCEDURE
13-6

Sending Automated Orders

Objective ♦ *Send an automated order to the lab using an EHR.*

EQUIPMENT AND SUPPLIES

Computer with electronic health record software; orders from the physician

METHOD

1. Be sure the system is turned on.
2. Log in with your assigned user name and the password you previously created.
3. Identify the correct patient EHR following clinic policies.
4. Ask the patient where she wants the lab order sent. Verify that the facility can accept electronic orders.
5. Locate the order entry screen, according to the steps required within the software program.
6. Select laboratory procedures, type of procedure, and specific type of test based on software.
7. Enter all required parameters for the test selected.
8. Select the laboratory facility that is to receive the order.
9. Complete the signature process, according to the steps required within the software program.
10. Verify that the entry is correct, reflects the test intended, and agrees with the physician order. This may require navigating to a new location within the software such as "order management."
11. Save the order.
12. Activate or send the order according to the steps required within the software program.
13. Close the patient's electronic health record.
14. Log off the system.

Refer to Procedure 13-6 to learn general procedures for sending automated orders.

SUMMARY

An electronic health record (EHR) provides a computerized means of gathering, documenting, and storing information about the patient and the care received in the medical setting. The same information found in a patient's paper chart is found in an electronic chart; however, electronic records are stored and accessed using a computer. A personal health record (PHR) is health information that the patient stores electronically on a computer or on a secure, central Internet site. Benefits of EHRs include improved diagnostics and patient outcomes, improved patient participation, and improved efficiencies, resulting in cost savings.

As medical practices make the transition to EHRs, medical assistants need to know how to transfer their knowledge

of traditional records to a computerized system. In particular, they should be aware of differences in documentation formats, medical record components, and retention and storage requirements. They also need to become familiar with how to make corrections in the medical record, document at the point of care, and follow HIPAA privacy and security requirements. Both electronic and paper medical records must comply with HIPAA legislation for privacy and security.

Medical assistants can provide valuable input into what functions are needed for a smooth patient care process, office efficiency, and security of protected health information (PHI) regulated by HIPAA. They can also advocate for features that make it easy for patients to access their own health information. The conversion from paper to EHR format is typically done over a period of time and requires a great deal of planning and organization.

COMPETENCY REVIEW

1. Define and spell the terms for this chapter.
2. Explain how the use of EHRs can help to avoid medication prescription errors.
3. Why would it be important for all staff members, even those with extensive computer experience, to attend a training session for new electronic health records software?
4. Explain how a medical office might enter a letter from an outside medical facility into a patient's electronic health record.
5. Explain the types of electronic signatures.
6. Discuss the steps in implementing an EHR system.
7. How would using electronic health records save time over using paper medical records?
8. Why should a medical office shred papers that contain patient information once those records have been entered?
9. Describe where you would find Emma Holmes's file. She has not been seen by Dr. Williams for two years, and there has been no communication with her. Is this an active, inactive, or closed file?
10. You are missing a file for Sean Roy. Discuss what process you would use to find it.
11. Mr. Crosby is angry and demanding that you give him his medical chart so that he can take it to another physician. How do you handle Mr. Crosby's anger and his request for his medical file?

PREPARING FOR THE CERTIFICATION EXAM

1. Which of the following can the medical staff typically do using an electronic health record system?
 - a. locate possible contraindications with prescribed medications
 - b. allow two or more staff members to access the same patient file at the same time
 - c. save time looking for charts
 - d. fax medical records to other medical offices
 - e. all of the above
2. Which of the following is a reason patients may want to access their own medical records online?
 - a. view their current medications
 - b. view the date of their vaccination
 - c. read their current lab report
 - d. see when they are due for their annual exam
 - e. all of the above
3. What is point of care documentation?
 - a. the ability of patients to access their medical records online
 - b. the ability to take patients' vital signs using an instrument connected to the computer and have results automatically entered
 - c. the ability of providers to access patient information from remote locations
 - d. the ability of providers to document the patient encounter in the examination room
 - e. the ability of patients to complete their medical histories online, before they arrive for the appointment
4. All of the following are functions of an EHR *except*
 - a. electronic data transmission to other health care providers.
 - b. search for certain types of conditions for a group of patients.
 - c. ease of access by others.
 - d. prescriptions printed.
 - e. electronic graphs of lab results.
5. All of the following are benefits of using an EHR *except*
 - a. communicating between staff members.
 - b. health maintenance.
 - c. advertising purposes.
 - d. putting records online.
 - e. avoiding medical errors.
6. What is the most convincing argument for converting paper medical records to an electronic format?
 - a. easier for staff to use
 - b. patient safety
 - c. saves time
 - d. communication with staff
 - e. health maintenance

7. How frequently should computers containing BHR information be backed up?
 - a. every hour
 - b. every four hours
 - c. every day
 - d. every two days
 - e. every week
8. What is the name of the legislative act that provides financial incentives to providers who implement EHRs and meet meaningful use criteria?
 - a. HIPAA
 - b. CBO
 - c. ONC
 - d. HITECH
 - e. CPOE
9. Which of the following would be last if filed alphabetically?
 - a. Jacob James Jurgens III
 - b. Jacob James Jurgens Jr.
 - c. Jacob James Jurgens Sr.
 - d. Jacob James Jurgens
 - e. Jacob James Jurgens II
10. Travis Williams has been assigned the patient ID number 386492. To search for his file, you look under 64, then 38, then 92. What system are you using?
 - a. unit numbering
 - b. straight numbering
 - c. terminal-digit filing
 - d. middle-digit filing
 - e. service numbering

CRITICAL THINKING

Refer to the case study at the beginning of the chapter and use what you have learned to answer the following questions.

1. While gathering information, Lewis and Tania developed a list of pros and cons for converting to electronic health records. What might have been included on their list?
2. The office has decided to make the conversion to EHRs. Once all records have been converted, what should be done with the original paper charts?
3. The office has recently received in the mail a typed consultation report from a local oncologist regarding a mutual patient, Yun-qi Yeung. What should be done with this report now that the office has converted to EHRs?

ON THE JOB

Dr. Jonas runs a private practice. He admits patients and makes rounds in two local hospitals. He uses one type of EHR software in his private office and two other packages in the two hospitals. Not only must Dr. Jonas learn three software

systems, but he also may at times be unable to move patient information between those systems because of incompatibility. What might Dr. Jonas do to address these issues?

INTERNET ACTIVITY

Search the Internet for the newest legislation in your home state regarding the handling of medical records. Write a summary of the article, and discuss with your class whether the legislation adds to efficiency when dealing with medical records or creates unnecessary obstacles.