An Overview of

PrimeSUITE’s Practice Management and Electronic Health Record Software

Learning Outcomes

At the end of this chapter, the student should be able to:

1.1 Describe practice management applications.
1.2 List the advantages and disadvantages of an electronic health record.
1.3 Describe EHR applications.
1.4 Chart the flow of information from registration through processing of the claim.
1.5 Use the help feature in PrimeSUITE.

Key Terms

Administrative information
Application
Care provider
Clearinghouse
Clinical information
Clinical (care) provider
CMS-1500 form
Demographic information
Electronic claims submission
Electronic Health Record (EHR)
Electronic Medical Record (EMR)
ePrescribing
Encounter form

Help
International Classification Disease-9th revision, Clinical Modification (ICD-9-CM)
Interoperability
Master Patient (Person) Index
Patient flow
Patient list
Point of care
Practice management
Registration
Software
Speech recognition technology
Superbill
UB-04 form
The Big Picture

What You Need to Know and Why You Need to Know It

The purpose of this worktext is to introduce students to software used to gather, track, and store the clinical and administrative (including demographic) information of patients seen in the medical facility. This information is used for patient care; to file claims for reimbursement; for reporting practice information to insurance carriers, government, and non-government agencies; and to gather statistics about the types of patients treated at the facility. We will be using Greenway Medical Technologies’ PrimeSUITE practice management (PM) and electronic health record (EHR) software throughout the text. This worktext is not meant to teach all of the functionality of PrimeSUITE; instead it is meant to demonstrate the most common electronic functions carried out in a medical office, hospital, or other healthcare facility.

This first chapter is an introduction and overview. The concepts in this chapter will be further explained throughout the text.

1.1 Practice Management Applications

Typically, software (computer programs that carry out functions or operations) used in a medical office is known as practice management (PM) software. Through the use of PM software, data is gathered on every patient from the time an appointment is made through the time the bill for each visit is paid. Electronic Health (Medical) Record (EHR/EMR) software includes the clinical documentation of patient care.

Greenway Medical Technologies’ PrimeSUITE is both a PM and EHR solution using a single database. The use of this single database to document the administrative and clinical aspects of patient care allows the provider to concentrate on the care of the patient, improve quality of the documentation collected, and share that documentation with other healthcare providers as appropriate, with the result of better coordination of the patient’s overall care.

We will first look at the applications typically found in practice management software, including PrimeSUITE. Practice management is a term used in physicians’ offices. In other healthcare facilities, including hospitals, these functions will also be computerized, but are referred to as Admission, Discharge, Transfer (ADT) and billing systems.

The main applications include:

Entering Each Patient Seen into a Master List

Each patient seen, whether in a physician’s office or a hospital, is only entered once into what is known as the Patient List or Master Patient (Person) Index (listings of all patients seen in an office or hospital). These will be further discussed in Chapter 2.

Scheduling Appointments

To maintain efficiency in an office, it is important that appointments be accurate. Think of it this way—if a patient were told to come to the office for an appointment at a particular date and time, but the appointment book showed another date and time for that patient to
be seen, the end result would be disorganization as well as unhappy patients and staff. Computerizing this function allows sufficient time to be allotted to that patient based on the reason for his or her visit, and also allows for more efficient scheduling of the provider’s time.

Assign ICD-9-CM Diagnosis and CPT Procedure Codes

You may have noticed on your own visits to your physician’s office that you are given a piece of paper when you leave the examining room. This is referred to as a Superbill or Encounter Form. There are many numbers or codes found on this paper. Every diagnosis made by a care provider is written in narrative form on a patient’s chart and then carried over to the Superbill. These narrative diagnoses are converted into numeric form with a coding system known as International Classification of Diseases, 9th revision, Clinical Modification (ICD-9-CM). The same occurs for each procedure performed, but the coding system used is Current Procedural Terminology (CPT). The Superbill and coding functions will be covered in detail in Chapter 6. Most likely, you will have a separate course or courses in billing and coding as well.

Complete a Billing Claim Form for Each Visit

In order to submit bills to health insurance carriers, a claim form must be generated for each visit. This is done by compiling the patient’s identifying information, insurance information, and the ICD-9-CM and CPT codes into a form called the CMS-1500, which is used by physicians’ offices, or the UB-04, which is used to bill hospital claims.

Send the Insurance Claims to Insurance Carriers

Once the claim form is generated, it is submitted to the insurance carrier for payment. Some hard-copy claim forms are still mailed to the insurance carrier, but the majority of forms are sent by electronic claims submission. Filing a claim electronically means that the information is sent by wire to a clearinghouse (service that processes insurance claims) or directly to the insurance carrier. Filing claims electronically cuts down on billing errors and cuts down on processing time, which results in faster payment. A clearinghouse is a service that processes data into a standardized billing format and checks for inconsistencies or other errors in the data.

The information collected as explained above is considered administrative information. The patient’s demographic (identifying) information is collected as part of the administrative information, as well as information needed for the business processes that take place in a healthcare facility, for instance gathering of insurance information, completing a claim form, submitting a claim, and so on.

Administrative information includes the insurance information, authorization to bill the insurance company, correspondence related to billing matters, etc. Demographic information identifies the patient—name, address, phone numbers, etc. The demographic information is specific administrative information that helps differentiate one patient from another with the same name.
1.2 Why Adopt Electronic Health Record Applications?

The widespread acceptance of an electronic health record has been slow compared to other industries such as banking or retail. There are several reasons for this, including security concerns, cost, and the time involved in learning how to implement, maintain, and use an electronic system. These have been seen as disadvantages. It has long been thought that paper records were more secure from tampering, loss, unauthorized access, or theft. Overall, the advantages far outweigh the disadvantages as far as security is concerned. With today’s technology, and with proper policies and procedures in place, although no system (including manual) is 100 percent secure, security need not prevent the use of an electronic record-keeping system. Paper records can more easily be stolen, lost, or tampered with. We will discuss in Chapter 7 the proper use of security measures.

The initial purchase and implementation costs are high. Writing in a chart or dictating into a microphone has been considered easier than pointing, clicking, and navigating within the screens of an electronic record. However, cost is an issue with any system—manual or electronic. Though it is true that the initial costs are high, the savings in supplies, space, archiving, greater staff and provider efficiency, and positive impact on patient care all increase the return on investment of an electronic system.

There is a high learning curve when implementing an electronic system, and it does require time-consuming hands-on training for all users. Care providers have been resistant to adopting an EHR due in part to this reason. But, once learned, the benefits of having all information in one place, quickly and readily retrievable by more than one person at a time, outweigh the disadvantages and will ultimately improve patient care. Informed decision-making regarding patient care or to manage a business can only be done through health information technology.

Interoperability is an advantage that really is not possible in a manual system. Interoperability means that through a single database, many different functions can take place and information can be shared. This is also known as an integrated database. An example is prescribing of medications. With a manual system, a separate piece of paper (the prescription pad) is used to write orders for the pharmacist to dispense a particular medication, at a particular dosage, and with particular instructions to a patient. Many times the writing is barely legible. This piece of paper has to be copied for inclusion in
the patient’s record, and the original is sent with the patient (or it is called in to the pharmacy). Hopefully all of that takes place, and the patient’s record accurately reflects the medication ordered. With functionality called electronic prescribing, or ePrescribing, nothing is separate. The physician types the prescription into the EHR for that patient, it is electronically transmitted to the pharmacy chosen by the patient, a permanent, accurate record is maintained, and the prescription is filled and ready for pickup at the pharmacy.

Assuring regulatory compliance is also made easier and more efficient through use of an electronic health record. Report-writing capabilities available in electronic systems allow for fast, reliable data submission and retrieval.

From a more global perspective, the use of electronic medical records will allow for the collection and use of incredible amounts of clinical data for use in medical research and epidemiology, which will have a profound effect on healthcare worldwide.

Check Your Understanding

1. Is a paper-based system of records more secure than an electronic one? Explain your answer.
2. When transitioning to EHRs, which costs are higher: initial costs or long-term costs? Explain your answer.

1.3 Electronic Health Record Applications

Now, let us take a look at the electronic record using PrimeSUITE.

It is through the EHR functionality that clinical information is collected and includes the patient’s medical history, current condition(s), treatment rendered, results of treatment, prognosis, plan of care, diagnosis, and any instructions given by the provider. PrimeSUITE’s EHR applications (functionality) include:

- Clinical documentation of a patient’s visit (the progress note) by the care provider
- Prescribing medications electronically to the patient’s pharmacy of choice through use of the ePrescribing solution.
- Exchange of clinical information between medical providers or other entities with a need to know, through the PrimeEXCHANGE solution.
- The ability to access clinical trials, evidence-based medicine, and pharmaceutical research to improve patient care, and access to clinical and financial benchmarking services to enhance financial management by using the PrimeRESEARCH solution.
- Mobile EHR applications available on personal digital assistants (PDAs) or SmartPhones to allow providers instant access anytime and anywhere through PrimeMOBILE.
1. What does PrimeSUITE’s PrimeEXCHANGE function do?
2. What is PrimeSPEECH?
3. Take a look at all of the functionality of PrimeSUITE. Open your Internet browser and access the following link, and then answer the following questions:
   http://www.greenwaymedical.com/specialties/family-practice/
   a. Where would you look to determine if a patient has had a polio vaccine?
   b. Where would you go to write a letter to a specialist to whom a patient is being referred?
   c. Where would you go to send tasks or make requests of physicians or other practice staff?
4. Take a look at the functionality and a demonstration of Greenway Medical Technologies’ PrimeSUITE. Pay particular attention to the Web demonstration of PrimeSUITE applications to become familiar with it. Then answer the following questions:
   http://www.greenwaymedical.com/web-demo/
   a. PrimeSUITE uses a _____ database, allowing for interoperability.
   b. The electronic Superbill is automatically generated from the _____.
   c. The Superbill includes charges, diagnosis, and _____ for the patient.
   d. PrimeSUITE is _____ in meaningful use standards.

1.4 The Flow of Information from Registration through Processing of the Claim

If you think about your past experiences visiting a physician’s office, you will recognize many of these steps and how similar they are to your experience. Of course, not every step is exactly the same in every office, but the basic premise is the same.

Step one (Figure 1.1) is that an appointment is made. Of course, if you are going to an urgent care center or an emergency room, this step would be skipped. Once the appointment is made, you go to the

- **Point of care** dictation of progress notes by the provider through PrimeSPEECH, which is a form of **speech recognition** technology. Speech recognition technology allows documentation to occur on the computer screen as the care provider dictates his notes. Point of care refers to the dictation occurring at the very time the patient is being seen.
office on the day and time of the appointment and you are “checked in.” This is known as registration, i.e., the patient’s administrative information is taken either on the phone or when the patient appears for the appointment. It is during this time that any demographic information that is incorrect or that has not been collected is done. Also, if new authorization forms or other administrative forms need to be signed, that is done at this point.

After you are checked in, you wait to be seen by the care providers (Figure 1.2). First, you are called back to the exam room by a healthcare provider (Figure 1.3), your height, weight, and vital signs (temperature, pulse, blood pressure) are taken, and you are asked questions about why you are being seen today as well as questions about your medical history. Once those are complete, the care provider steps in for the actual exam (Figure 1.4).

Once the care provider has completed the exam, assessed the patient’s condition, and given the patient a plan of care including instructions, the business functions begin (Figure 1.5 and Figure 1.6). These include the check-out and billing procedures. Some of these procedures are repeated or continue for several weeks or months until the claim is paid and the patient’s account is at a zero balance.

In cases where the care provider ordered diagnostic procedures such as x-rays or laboratory tests, then the clinical documentation steps would be repeated (Figure 1.7).
Figure 1.5  Check-out desk flowchart

Figure 1.6  Business office/billing flowchart

Figure 1.7  Clinical staff/care provider flowchart
1.5 Use of the Help Feature

The use of help text or of a help function is standard in most software applications. You have no doubt used it from time to time when preparing word processing or spreadsheet applications. PrimeSUITE is no different.

PrimeSUITE help text can be accessed through any screen, as you see in Figure 1.8.

By clicking on Help, you will gain access to the entire user’s guide (Figure 1.9). The guide can be searched by topic, or by using the index or glossary. For instance, if you wanted to know more about vocabulary reconciliation, clicking on index allows the user to access a keyword search, where the system begins to...
The important thing about Help is that it is there for just that—to help you learn PrimeSUITE, assist you when you are unsure of the steps you need to complete, and to help you keep up to date with changes or new functionality added to the software.

**Check Your Understanding**

1. How do you access the Help feature in PrimeSUITE?
2. How many ways are there to locate information?
3. Using the Help feature, describe how to add a new allergy to a patient’s chart.
# Chapter 1 Summary

<table>
<thead>
<tr>
<th>LEARNING OUTCOME</th>
<th>CONCEPTS FOR REVIEW</th>
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| **1.1** Describe practice management applications. Pages 2–4 | - What is practice management?  
- Practice management applications  
  - Master Patient Index/Patient List  
  - Scheduling appointments  
  - Assign ICD-9-CM and CPT codes  
  - Complete billing claim form  
  - Send insurance claims to carriers |
| **1.2** List the advantages and disadvantages of an electronic health record. Pages 4–5 | - Disadvantages  
  - Increased security functions  
  - High cost of implementation  
  - Training requirements  
- Advantages  
  - Possibly more secure than paper records  
  - Return on investment is high  
  - All information in one place  
  - Interoperability  
  - Assures regulatory compliance  
  - Exchange of information with those who have a need to know |
| **1.3** Describe EHR Applications. Pages 5–6 | - Clinical documentation  
- Electronic prescribing  
- Exchange of clinical information  
- Research evidence-based medicine, pharmaceutical research, clinical and financial benchmarking studies  
- Speech recognition |
| **1.4** Chart the flow of information from registration through processing of the claim. Pages 6–10 | - Appointment scheduling  
- Front desk check-in  
  - Verify demographic information  
  - Sign authorization/administrative forms, if necessary  
- Patient taken to examining room  
  - Height, weight, vital signs are taken  
  - Patient states the reason for today’s visit (chief complaint) |
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| – Care provider meets with the patient | • Provider verifies reason for visit; updates history  
|                               | • Provider examines of patient  
|                               | • Provider makes referrals, if necessary  
|                               | • Prescriptions are electronically sent to pharmacy, if necessary  
|                               | • Provider completes the chart, which then starts the coding and claims process  
|                               | • Provider completes the visit and provides patient with a Superbill or encounter form  
| – Patient stops at the check-out desk | • Superbill is given to staff member at the check-out desk  
|                               | • Patient pays co-pay, if not done during check-in process  
|                               | • Patient leaves the office  
| – Business Office/Billing | • Insurance claim form is completed electronically  
|                               | • Insurance claim is submitted electronically  
|                               | • Insurance payment (or notice of denial) is received  
|                               | • Payment is entered in the system  
|                               | • Patient’s account is updated  
|                               | • Statement is sent, if necessary  
| – Follow-up | • Results of diagnostic tests received, if applicable  
|                               | • Record is updated with results  
|                               | • Provider reviews results  
|                               | • Patient is contacted, if necessary |

1.5 Use the help feature in PrimeSUITE.
Pages 10–11

– Use of Help from menu bar
– Other means of accessing help feature
– User’s Guide
MATCHING QUESTIONS
Match the terms on the left with the definitions on the right.

1. [LO 1.2] interoperability
   - a form generated at the completion of an office visit, a portion of which details the patient’s diagnosis, procedures and services performed, and charge for each procedure/service

2. [LO 1.5] User Guide
   - filing of a healthcare claim using a computer rather than paper

3. [LO 1.3] care provider
   - technology that digitally transcribes spoken words

4. [LO 1.4] check-in
   - specialized computer software that performs administrative and billing procedures in medical offices

5. [LO 1.1] electronic submission
   - documented patient information such as age, sex, and race

6. [LO 1.1] encounter form
   - procedures that take place at the time of care, rather than at a remote location or at a point in time after care is complete

7. [LO 1.3] point of care
   - person, usually a physician, who performs healthcare services requiring specialized education and training

8. [LO 1.1] practice management software
   - is included in the Help feature of PrimeSUITE and allows office staff to search for assistance in using the software

9. [LO 1.3] speech recognition
   - a single database to sync multiple unrelated functions or systems

10. [LO 1.1] demographics
    - the first face-to-face step in the patient encounter

MULTIPLE-CHOICE QUESTIONS
Select the letter that best completes the statement or answers the question:

1. [LO 1.1] EHR/EMR software is more comprehensive than practice management software because it:
   - a. is computerized.
   - b. contains more menu options.
   - c. includes clinical documentation.
   - d. submits insurance claims.

2. [LO 1.3] PrimeSUITE:
   - a. allows for ePrescribing.
   - b. has mobile applications.
   - c. assists in information exchange.
   - d. all of the above
3. [LO 1.1] A patient is entered into the patient list:
   a. once.
   b. twice.
   c. after a procedure.
   d. each time he or she is seen.

4. [LO 1.2] In the long term, costs will _____ when transitioning to an electronic health record system.
   a. increase
   b. decrease
   c. stay the same
   d. disappear

5. [LO 1.4] The process of moving a patient from appointment making through check-out is called:
   a. patient cycle.
   b. patient process.
   c. patient flow.
   d. patient records.

6. [LO 1.3] Clinical documentation of a patient’s visit is known as the:
   a. Superbill.
   b. progress note.
   c. medical claim.
   d. point of care.

7. [LO 1.1] An encounter form is also known as a/an:
   a. EHR.
   b. history.
   c. claim form.
   d. Superbill.

8. [LO 1.1] The _____ is a form used to bill inpatient claims.
   a. CMS-1500
   b. ICD-9
   c. CPT
   d. UB-04

9. [LO 1.2] One factor that might contribute to slow acceptance of EHRs is:
   a. security fears.
   b. laziness.
   c. fear of change.
   d. space concerns.
10. **[LO 1.5]** PrimeSUITE’s User Guide is accessed through the _____ feature.
   a. Help  
   b. Information  
   c. Lookup  
   d. Query

11. **[LO 1.3]** The _____ is an example of clinical information that is collected through an EHR.
   a. insurance policy  
   b. plan of care  
   c. research effects  
   d. regulatory guidelines

12. **[LO 1.2]** _____ is not easily attained when using a manual record system.
   a. Communication  
   b. Data capture  
   c. Interoperability  
   d. Maintenance

**SHORT ANSWER QUESTIONS**

1. **[LO 1.4]** List the steps included in patient flow of information.

2. **[LO 1.2]** Discuss three advantages to electronic health records as discussed in the text.

3. **[LO 1.1]** What is practice management software?

4. **[LO 1.3]** What feature of PrimeSUITE allows practitioners to access clinical trials and other research?

5. **[LO 1.5]** If you needed to use PrimeSUITE’s Help feature to look up how to register a patient, how would you do it?

6. **[LO 1.4]** What is the first step in the patient flow of information?

7. **[LO 1.1]** What is the CMS-1500 form?

8. **[LO 1.3]** Mobile EHR applications are currently available on what mobile devices?

9. **[LO 1.2]** Define interoperability and give an example of how it might be used in the healthcare field.

10. **[LO 1.2]** List three advantages of ePrescribing.

11. **[LO 1.1]** What is electronic claims submission? Why is this the preferred method of claims submission?

12. **[LO 1.1]** List at least three main applications found in a typical practice management program.

13. **[LO 1.4]** What is the final step in the Front Desk/Check-In process?
APPLYING YOUR KNOWLEDGE

1. **[LO 1.2]** Your medical office is preparing to transition from a paper-based office to an electronic one; you are really excited about this change. One day you receive an email from one of your colleagues negatively discussing the change and wondering why things cannot stay how they are now. Your colleague is looking to you and asking your opinion. What would you say to convince the person that this transition is a good thing?

2. **[LOs 1.1, 1.3, 1.5]** Which of PrimeSUITE’s many EHR applications do you feel is the most beneficial or useful? Explain your answer.

3. **[LO 1.4]** Denisse Cruz arrives at your office for her annual check-up appointment with Dr. Smith. Discuss what will happen with Denisse as she moves through each step of patient flow.

4. **[LOs 1.2, 1.3]** A patient is admitted to the hospital with a constant, severe migraine headache. After numerous tests, no cause for the headache can be determined. Discuss how EHRs might help diagnose this patient.

5. **[LOs 1.1, 1.2, 1.3]** Contrast a typical day in a paper-based office with a day at an office that uses practice management software.

6. **[LOs 1.1, 1.2, 1.3, 1.4, 1.5]** The medical office you work in recently transitioned into an electronic office and is implementing practice management software. You are excited about this change and are learning all you can about the new technology. However, some of your coworkers are having trouble grasping the basics, and are now saying they don’t want to use the software at all. What steps could you take to assist your struggling coworkers?