

The Office of the National Coordinator for
Health Information Technology



Component 11: Configuring Electronic Health Records

Component Guide

Health IT Workforce Curriculum Version 4.0/Spring 2016

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Component Number: 11

Component Title:

Configuring Electronic Health Records

Component Description:

This component provides experience with a laboratory (using the VistA for Education program) that will address approaches to assessing, selecting, and configuring Electronic Health Records (EHRs) to meet the specific needs of customers and end-users.

Component Objectives:

At the completion of this component, the student will be able to:

1. Describe the process of initial planning, including identification of stakeholders, champions, management and implementation teams, and determining appropriate members for a steering committee.
2. Develop a timeline for choosing and implementing an electronic health record, including defining the scope of implementation, budget estimates, and additional critical steps to build a basic strategic plan for implementation.
3. Develop functional requirements, including a workflow analysis and a gap analysis, and recognize when to bring in expertise.
4. Develop and apply criteria for selecting an appropriate vendor for the electronic health record.
5. Negotiate a contract.
6. Develop a training plan.
7. Enter a progress note as a Physician in a VistA simulation EHR environment.
8. Enter nursing notes and implement physician orders as a Registered Nurse in a VistA simulation EHR environment.
9. Understand the importance of clinical workflows in the functioning of EHRs.
10. Define and discuss clinical decision support.
11. Describe, view, and create alerts/notifications in a VistA simulation EHR environment.
12. Describe, view, and create order checks in a VistA simulation EHR environment.
13. Describe, view, and resolve reminders in a VistA EHR simulation environment.
14. Discuss the value of these EHR functions as clinical decision support tools.
15. Define and describe an order set.
16. Describe the benefits and costs associated with order sets.
17. Describe two types of order sets.
18. Explain two ways data is captured by an electronic health record.

19. Describe how the effective use of data entry templates supports quality care, patient safety, and efficiency.
20. Define the attributes of quality information.
21. List the 16 dimensions of information quality.
22. Describe how quality reporting functions in an EHR supports quality care, patient safety, and efficiency.
23. Describe two methods for creating a report using the health summary reporting function.
24. Explain the role of Clinical Reminder reports in the VistA simulation EHR environment.
25. Describe the implementation of meaningful use (MU) of electronic health records in the context of the Health Information Technology for Economic and Clinical Health (HITECH) Act.
26. Demonstrate examples of meaningful use using the VistA Electronic Health Record (EHR) system.

Component Files

Each unit within the component includes the following files:

- Lectures (voiceover PowerPoint in .mp4 format); PowerPoint slides (Microsoft PowerPoint format), lecture transcripts (Microsoft Word format); and audio files (.mp3 format) for each lecture.
- Application activities (discussion questions, assignments, or projects) with answer keys.
- Self-assessment questions with answer keys based on identified learning objectives.
- Some units may also include additional materials as noted in this document.

Component Units with Objectives and Topics

Unit 1: Migration to an Electronic Health Record System

Description:

This unit focuses upon the process of migrating to an Electronic Health Record System and the Electronic Health Record life cycle.

Objectives:

1. Describe the process of initial planning, including identification of stakeholders, champions, management and implementation teams, and determining appropriate members for a steering committee.
2. Develop a timeline for choosing and implementing an electronic health record, including defining the scope of implementation, budget estimates, and additional critical steps to build a basic strategic plan for implementation.
3. Develop functional requirements, including a workflow analysis and a gap analysis, and recognize when to bring in expertise.
4. Develop and apply criteria for selecting an appropriate vendor for the electronic health record.
5. Negotiate a contract.
6. Develop a training plan.

Lectures:

- a. Initial Planning and Project Development (26:28)
- b. Vendor Selection Process (21:23)

Unit 2: Patient Care Clinical Workflow and Multiple Perspectives of Patient Care

Description:

This unit introduces the student to patient care clinical workflows from multiple perspectives. A brief lecture introduces the concept of workflows and their relevance to EHR implementation. The lab exercises in this unit focus on the patient, and demonstrate the use of EHRs through the workflows of clinicians and ancillary care providers in the outpatient, inpatient, and emergency department settings. The lectures in this unit compare workflows from a paper and EHR perspective.

Objectives:

1. Enter a progress note as a Physician in a VistA simulation EHR environment.
2. Enter nursing notes and implement physician orders as a Registered Nurse in a VistA simulation EHR environment.

3. Understand the importance of clinical workflows in the functioning of EHRs.

Lectures and Lab Exercises:

- a. Clinical Workflows and the EHR (21:39)
- b. Lab Exercises: The Use of EHRs by Clinician and Ancillary Care Providers

Unit 3: Implementing Clinical Decision Support**Description:**

This unit discusses implementing clinical decision support, which broadly refers to providing clinicians or patients with computer-generated clinical knowledge and patient-related information, intelligently filtered and presented at appropriate times, to enhance patient care. A short lecture is followed by a series of lab exercises through which students will learn how to configure and use three tools for decision support implemented in the EHR: Alerts or Notifications, Order Checks, and Clinical Reminders.

Objectives:

1. Define and discuss clinical decision support.
2. Describe, view, and create alerts/notifications in a VistA simulation EHR environment.
3. Describe, view, and create order checks in a VistA simulation EHR environment.
4. Describe, view, and resolve reminders in a VistA EHR simulation environment.
5. Discuss the value of these EHR functions as clinical decision support tools.

Lectures and Lab Exercises:

- a. Implementing Clinical Decision Support (25:30)
- b. Lab Exercises: Alerts and Reminders

Unit 4: Building Order Sets**Description:**

This unit identifies the value of order sets as a quality control/quality improvement mechanism and an efficiency tool in clinical settings. Typically, order sets are created by clinicians with expertise in treatment plans. Through a series of lab exercises, students will learn how to take those treatment plans and implement them into specific order sets within the VistA simulation EHR system.

Objectives:

1. Define and describe an order set.
2. Describe the benefits and costs associated with order sets.

3. Describe two types of order sets.

Lectures and Lab Exercises:

- a. Costs, Benefits, and Types of Order Sets (05:53)
- b. Lab Exercises: Building Order Sets

Unit 5: Creating Data Entry Templates**Description:**

Templates are important tools in the collection of data that is manually entered into Electronic Health Record systems. When implemented appropriately, templates can help standardize the data entered into the system, provide controls that ensure the quality of the data captured, and provide data capture efficiencies through effective design and use. This unit provides a brief lecture followed by lab exercises to show the student the experience of creating and using data entry templates.

Objectives:

1. Explain two ways data is captured by an electronic health record.
2. Describe how the effective use of data entry templates supports quality care, patient safety, and efficiency.

Lectures and Lab Exercises:

- a. Data Capture and Data Entry Templates (07:56)
- b. Lab Exercises: Creating Data Entry Templates

Unit 6: Health Summary and Clinical Reminder Reports**Description:**

The ability to quickly retrieve information from the EHR is a key function. Two reporting tools commonly implemented in EHR systems to support information retrieval are [1] the ability to generate standard reports that provide widely used information and [2] the ability to quickly create ad hoc reports to access information to meet more specific needs. In this unit, the student will learn the attributes of quality information and engage in lab exercises showing Health Summary and Clinical Reminder reports – two basic types reports found in the EHR.

Objectives:

1. Define the attributes of quality information.
2. List the 16 dimensions of information quality.

3. Describe how quality reporting functions in an EHR supports quality care, patient safety, and efficiency.
4. Describe two methods for creating a report using the health summary reporting function.
5. Explain the role of Clinical Reminder reports in the VistA simulation EHR environment.

Lectures and Lab Exercises:

- a. Measuring Information Quality (13:19)
- b. Lab Exercises: Health Summary and Clinical Reminder Reports

Unit 7: Meaningful Use and Implementation

Description:

This unit describes the meaningful use program of the Health Information Technology for Economic and Clinical Health (HITECH) Act of the American Recovery and Reinvestment Act (ARRA) from the vantage point of the VistA simulation electronic health record (EHR). It discusses eligibility for meaningful use incentive payments and the criteria for achieving those payments in Stage 1 of the program. It shows examples of some of the criteria from within screens of the VistA simulation EHR environment.

Objectives:

1. Describe the implementation of meaningful use (MU) of electronic health records in the context of the Health Information Technology for Economic and Clinical Health (HITECH) Act.
2. Demonstrate examples of meaningful use using the VistA Electronic Health Record (EHR) system.

Lectures:

- a. Meaningful Use Program of the HITECH Act (14:16)
- b. Meaningful Use and Implementation (20:51)

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