



Clinical Practice and Workflows

Foundational Curriculum:

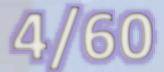
Cluster 2: Clinical Process

Module 2: Clinical Practice and Documentation

Unit 1: Clinical Practice and Workflows

FC-C2M2U1

Curriculum Developers: Angelique Blake, Rachelle Blake, Pauliina Hulkkonen, Sonja Huotari, Milla Jauhiainen, Johanna Tolonen, and Alpo Värri





Unit Objectives



- Describe clinical practice
- Describe the workflows related to various roles, and understand how electronic health records affect these workflows
- Identify common outpatient workflows, including the processes of scheduling, registering, visit management including SOAP, and following up of patients
- Identify common inpatient workflows, including the processes of admission, acuity determination, transfer, treatment and discharge of patients
- Describe the workflows related to physically tracking, triaging, and managing acuity of patients throughout the continuum of care
- Describe the role of patient and data management systems in processes and workflow
- Describe how electronic health records facilitate structured workflows and how this benefits patients, care providers in their clinical practice, the allied health team, and healthcare facilities



What is Clinical Practice?



- As you have learned, a clinician is a skilled staff member of the allied health team, usually professionally educated, trained, licensed and/or credentialed, who provides direct patient care
 - Clinicians include doctors, nurses, pharmacists, patient care assistants, therapists and others who provide care to patients
- Clinical practice is the combined activities undertaken by medical staff at the different areas of expertise and specialization (such as surgery, podiatry, pediatrics, etc.) within all of the settings and domains of health-related organizations





What is Clinical Practice? (cont'd)



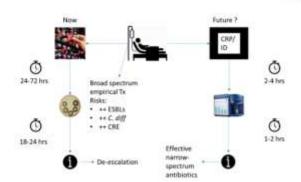
- The practice of medicine by health practitioners involves the assessment/diagnosis, treatment, and management of patients' health status and conditions
 - It also includes determining the patient's acuity
 (the level of severity of an illness one of the parameters in patient classification systems that serve as a guideline for allocation of nursing staff)



What are Provider Workflows?



- Workflow is the process of formulation and execution of an automatic system of rules and procedures. Tasks, information and/or documents are passed from one worker to another for a standardized set of action.
- Some workflows in healthcare settings are administrative or business related. These are called business processes or workflows.
- When the processes in healthcare involve clinical practice or direct patient care components, they are called clinical workflows. When these clinical workflows include providers of care, the workflows are sometimes called provider workflows.





What are Provider Workflows? (cont'd)



- Provider workflows include physician and nursing workflows, as well as those of other providers
 - There are other workflows involved in other healthcare settings that may not be clinical in nature, including administrative, business and financial workflows
 - These business workflows will be covered in later units
- Workflows of providers and other staff as well as
 patient workflows (workflows that patients follow, such
 as scheduling visits or completing forms) are very
 important to integrating, implementing, deploying and
 optimizing information systems and technology in
 healthcare organizations



What are Provider Workflows? (cont'd)



 Electronic health records can both simplify and intensify complex manual workflows; therefore, it is essential that workflows must be carefully engineered to maximize ease of clinical practice and patient care with systems and technology being employed as tools



What Questions Are Needed to Determine a Workflow?



- When mapping a work flow, you should ask the following questions about a work process or procedure. These questions refer to activities such as registering a patient, drawing blood, administering a medication or performing a surgery:
 - Who is involved? Who is performing the task, and who is the recipient, if anyone? Are others involved?
 - What happens from the perspective of the patient?
 - What happens from the perspective of the care provider?
 - When do the events occur, in which sequence or order?
 - Where is the location of the task?
 - Which equipment or devices are used in the task?
 - What are the safety, security or quality requirements?
 - What is the expected outcome?
 - Is anything dependent upon the workflow? Does it trigger another event, such as a worklist, order or referral?
 - What are the critical components of the task? Can specific components be prioritized in order of importance?



Example of Basic Outpatient Clinical Workflow (Manual Processes)





New patient calls clinic (Day 1)



Receptionist returns call; schedules first office visit (Day 3)



Patient comes to clinical appointment (Day 10)



Patient is given registration paperwork (Day 10 – 20 minutes)



Patient is roomed; weight, height and vital signs taken by nurse and charted (Day 10 – 20 minutes)



Patient is notified of lab work, radiology exam is scheduled; patient awaits orthopedist's office to call her back for appointment (Day 20)



Doctor (on paper) orders lab work, radiology exam and consultation with orthopedist (Day 10 – 50 minutes)



Doctor performs **SOAP** (Day 10 – 40 minutes) (critical event)



Doctor reviews patient forms and nurse notes (Day 10 – 30 minutes)



Example of Basic Inpatient Clinical Workflow (Manual Processes)

Yes

No





Patient is admitted to the hospital (Day 1)



Patient has several laboratory and diagnostic tests; interim diagnosis of acute diverticulitis with perforation is made (Day 3)



Surgery is recommended; will surgery be performed? (Day 5)



Surgery is performed; patient is transferred to the Recovery Room (Day 7)



Intensive Care

Patient is unstable; patient is transferred to the Intensive

Care Unit

(Day 7) (Critical Event)



Patient is given a prescription for outpatient medications and a discharge letter for his physician; patient leaves hospital (Day 9/18 17.00 hours)



Patient is ready for discharge; discharge and interdisciplinary care planning takes place (Day 9/18 11.00 hours)



Patient is treated with antibiotics and pain medications; condition improves
(Day 6/11)



Patient's acuity continues to be assessed; patient stabilizes; patient is transferred to medicalsurgical unit (Day 9)

The Emergency Room: An Example of Triaging, Tracking, and Managing Acuity of Patients



Patient is triaged by clinical staff; trauma and acute patients are bedded/moved immediately to appropriate treatment area (2-5 min)

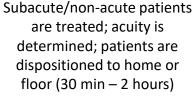


Resuscitation/treatment is delivered to trauma and acute patients; acuity is determined; appropriate patients sent to CCU/ICU or surgery (0 min – 2 hours)



Patienter

Patient arrives to the Emergency Department; initial acuity (assessment of level of illness or injury) is determined (0 min) Patient is registered by administrative staff; subacute/non-acute patients wait in waiting room (10 min – 2 hours)





Subacute patients needing admission are admitted to floor (2 – 23 hours)





Important Components of Clinical Workflow



- Process begins (there is a beginning and an end to every process)
 - Process events: Who -> does -> what? (each process has a subject, the "who", an action, the "does", and an object, the "what")
 - Decision points: "Yes / No" (are there any key points in the process where something must happen in order for the process to continue?) (these are indicated by a diamond shape on workflow maps)
 - <u>Key processes:</u> (are there any priority events that take place in the process?)
- Process ends



The Role of Patient and Data Management Systems in Processes and Workflow



- We have seen several examples of manual clinical workflows
- The role of patient and data management systems are to make these processes and systems more safe, efficient, and effective
- For example, when a paper registration process is made electronic, it saves time, human and physical resources, and infuses quality into the process (such as avoiding handwriting and increasing accuracy and validation of information)
- We will see examples of "clinical transformation", or changing manual processes to electronic processes, in a future unit

How Electronic Health Records Facilitate Structured Workflows and Benefit Staff and Patients

- Electronic health records use structured data elements such as problem lists, medications, and allergies, instead of narrative text
- This facilitates structured, organized and efficient workflows, which saves time and energy, and minimizes or avoids errors
- Patient and staff satisfaction can increase when patient and data management systems are carefully integrated into clinical workflows



Unit Review Checklist



Described clinical practice (EN05)
Described the workflows related to various roles, and understand how electronic health records affect these workflows (DB03)
Identified common outpatient workflows, including the processes of scheduling, registering, visit management including SOAP, and following up of patients
Identified common inpatient workflows, including the processes of admission, acuity determination, transfer, treatment and discharge of patients
Described the workflows related to physically tracking, triaging, and managing acuity of patients throughout the continuum of care
Described the role of patient and data management systems in processes and workflow (DB02)
Described how electronic health records facilitate structured workflows and how this benefits patients, care providers in their clinical practice, the allied health team, and healthcare facilities (DL01)



Unit Review Exercise



- 1. Produce a short workflow mapping of the following process (use pages 8-10 of this unit as an example):
 - 1. The process begins
 - 2. The patient arrives to the medical-surgical unit
 - 3. Physician orders medication for patient
 - 4. Nurse gets a worklist notifying him that patient needs medication
 - Nurse asks patient's name and birthdate to validate the patient is correct
 - 6. Nurse asks patient if she has allergies
 - 7. <u>Important: If yes, he does not administer medication</u>
 - a. The allergy is noted in the chart
 - b. A new medication is requested
 - 8. If no, he administers the medication
 - a. The process is complete
- 2. Is there a critical step in the above mapping exercise?



Unit Exam



- 1. Which of the following statements defines "clinical process"?
 - a. Deploying and optimizing information systems and technology
 - b. Magnifying complex manual workflows
 - c. Mapping nursing and physician work flows
 - d. The combined activities undertaken by medical staff at the different areas of expertise and specialization
- 2. Which of the following statements about provider workflows is false?
 - a. EHRs always make complex workflows easier
 - b. Clinical practice involves many specific ways in which work flows
 - c. Patient workflows are very important to integrating EHRs
 - d. Electronic health records can both simplify and intensify complex manual workflows



Unit Exam (cont'd)



- 3. Which of the following questions would help determine a workflow for medication administration?
 - a. In which city is the organization located?
 - b. Who is the patient's next of kin?
 - c. When will the patient's barcode armband be scanned for medication cross-checking?
 - d. What mode of payment did the patient select at registration?
- 4. Which of the following activities are <u>not</u> part of an ambulatory workflow?
 - a. Registering a patient
 - b. Admitting a patient
 - c. Scheduling a patient
 - d. Rooming a patient (putting the patient in a room)



Unit Exam (cont'd)



- 5. Which of the following activities are usually part of an emergency department workflow?
 - a. Performing surgery
 - b. Interdisciplinary care planning and discharge summary
 - c. Transfer from the ICU to the medicine-surgical unit
 - d. Determining acuity and triaging the patient