**Chapter 6**

**Data Management**

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**Real-World Case 6.1**

A large urban healthcare system was experiencing the rapid implementation and use of the EHR as well as many mergers and partnerships to support clinics and create better business opportunity. In one year, the healthcare systems purchased three new clinics and became affiliates with two others. The affiliate structure allows for the clinics to use their EHR and have a clear referral process if a patient needed additional attention. While integrating the new clinics into the system, data and documents were being entered into the EHR with no common naming structure and with no common places to enter the information; the data was hard to find and inconsistent throughout the entire health record.

With the need to fix the issue as soon as possible, the eHIM manager was tasked with creating a process for the enterprise record management system. The objectives of the project were to define the organization’s official health record, detail the record retention schedule for the organization, and create databases. A team consisting of members from across the organization strived to meet the goals of the project and help create information governance within the organization.

The project was a success and the organization now has processes, policies, procedures, and decisions documented to help manage and support health records throughout the entire organization. In addition, there will be efficient integration of records into the current enterprise record management process as new mergers occur. Better oversight of the records has not solved all the issues with the management of patient records, but it has created a foundation for success and a place to expand and build on information governance.

*Source:* Lundgren, K. 2015 (May 1). Minnesota Health Information Management Association Annual Meeting Presentation: Enterprise Record Management.

# Real-World Case Discussion Questions

1. As new clinics came onto the health system, they had issues with documentation identification as the same documents were often called different names. What principle of information governance can be applied when documenting the decisions to standardize the naming of documents across the healthcare system? Why?

The Principle of Transparency would help with document identification. When a document is created, there must be a clear proces. This process must support the organization’s operation, decisions, activities and performance. Without clear names for documents, too many documents are created and there becomes a lot of confusion.

What users should be involved?

Users that should be involved include: The board of directors, they ensure the vision of the orgainzation is being met with the documents. Physicians and medical staff would need to colaborate and note the different documents they need and what should be included on them. Medicare/Medicaid requirements need to be gathered to ensure the documents are acceptable. The HIM department is also involved to ensure documents are set up properly, user friendly, able to be clear and not too much unnessicary information is included.

Users should be *experts* in what areas?

2. What skills would the eHIM manager need? Name four and why needed

Skills the eHIM manager would need include:

The ability to create databases. One of his/her objectives is to create a database and if they were not familiar with different ones, they’d be unable to achieve that goal.

The ability to read and comprehend information to organize and separate information. The manager has a lot of information that needs to be collaborated and organized. He/she needs to determine what information is important and what information isn’t. If they are unable to collect and understand the information they read, then they are useless.

Trustworthy: The manager receives a lot of private information about people. The can’t be discussing personal information about people they read about with friends, families, and even sometimes coworkers. It is against the law and unethical. Leaked information isn’t beneficial to the individuals and the company.

Knowledgable about medical terms: The manager is reading medical paperwork. They need to be able to read the terms medical staff are writing and know what to do with it. Medical terminiology is a large role.

**Real-World Case 6.2**

A medium-sized hospital had been using an EHR for 12 months. They were having great success with getting the providers to document within a timely fashion; however, many of the notes did not provide enough information to code the record or key components to adequately code were missing. They had a process for physician query, as follows:

● Electronically flag the record for physician query

● Create a paper query form for the provider

● Send the electronic query to the HIM operations department to put in a physician completion folder

● HIM operations would add a deficiency to the patient chart to flag the provider that a coding query needed to be complete

● The provider would come in to the HIM department to complete the query

● The deficiency was removed, and the query was scanned into the chart

● HIM operations then notified the coder through an e-mail that the query was answered

● Chart is coded and sent to billing

While it was a strong process and the providers did answer the questions, it caused a spike in the time to get the charts coded and to billing, as providers usually came into the department once every 20 to 25 days. In some cases, providers would leave the coding queries unanswered for up to 60 days. The average turnaround time for a coding query was 28 days. The organization needed to change the process to help accelerate the query process and reduce the physicians’ frustrations of having to come into the HIM department.

New functionality exists within the EHR to send an electronic query, which would automatically assign the deficiency and send a note to the provider’s inbox within the EHR alerting him or her that a coding query exists. The new process had less steps and involved less people; however, the physicians were concerned about the new process. With careful training and education, the new process was implemented and reduced the steps, making the physician query process easier for coding, HIM operations, and the providers. The new processes steps were:

● Electronically flag the record for physician query

● Create the electronic physician query through predesigned templates and assign the correct physician (this would automatically assign the deficiency and send the coding query to the inbox)

● Physician electronically completes the coding query through the EHR

● The electronic deficiency is automatically removed and the coding query is electronically submitted to the physician and retained and the chart then automatically flagged to complete coding

● Chart is coded and sent to billing

With the change in the process, the HIM operations department has little involvement unless it is supporting the physician in completing the query. The turnaround time for completion of coding queries was reduced from 28 days to 15 days within the first 60 days of completion. The process was a success and the organization has significantly reduced the time it takes to code and bill all patient encounters.

# Real-World Case Discussion Questions

1. List 5 benefits of an electronic-based query and discuss the positive impacts made on the organization.

An electronic based query benefits include: Faster closing of query so billing can be resolved. Less time wasted for the physician, so the physician can continue to provide excellent services to patients. Formats for quieries can include radio buttons and drop down menus to eliminate confusion. Since you can set up a flag to be removed when the deficiency is removed, there is no forgetting to remove a flag. There is less room for error. And lastly, the predesigned template can be designed specifically for the issue. This way there is a clear template to choose from to get the best information possible.

1. What are the positive impacts made on the organization?

Positive impacts made on the organization include an E HR! The physicians are documenting faster and responding to queries much faster.

1. Differentiate between the 10 characteristics of data quality found in the AHIMA data quality model.

Accuracy: Ensuring the data is free from errors. It’s important to ensure you receive proper diagnosis.

Accessibility: It is important to ensure the data is available when it is needed. There also must be safety measures taken to ensure the data is readily available for whoever needs it.

Comprehensiveness: All data should be collected throughout the health record and documented.

Consistency: All of the data should be the same within the entire health record. For example a diagnosis should be the same throughout the whole record.

Currency: All of the data must be up to date and current. Ensure there isn’t any outdated data.

Definition: Data elements should be clear and properly defined to guarantee that all individuals using and gathering data is easily understood.

Granularity: Data collected for the patient must be at the appropriate level of detail.

Precision: Data should be precise and collected in its exact form within the course of patien care.

Relevancy: Data revelancy is ensure the data elements that are collected are useful for the purpose they are collected.

Timeliness: Patient documentation must be entered promptly to ensure the information is up to date and available within a specific time frame.

1. Give similarities and differences of the 10 characteristics ie comprehensiveness, granularity, precision, differences, etc.

Similarities: Timeliness and currency have to do with ensuring data is up to date.

Precision and granularity are similar because it has to do with the form the data is collected. The data must be recorded accurately.

Differences: Currency is ensuring the information is up to date while timeliness is ensuring data received is entered promptly.

Relevancy is ensuring the data that’s collected is useful while accuracy doesn’t care if it’s useful information, but entered correctly.

1. What else could the facility do to improve the query process?

The facility could try to find a way to ensure the original information entered into the health record is already correct. Making sure the templates for the physician when they meet with the patient reduces confusion is ideal. They should try to make sure the initial notes cover enough information so coding is able to be done.

# Application Exercises

*Instructions:* Answer the following questions.

1. Review the AHIMA career map at <http://hicareers.com/careermap/>. Find a job that focuses on some aspect of data management. Identify 3-4 job-specific duties that interact with data management and develop a job description for the specific job. Include the following:
   * Position title: Data Quality Manager
   * Immediate Supervisor: Director of HIM
   * Position Overview: This position leads the Data Quality Management department. They oversee, assess, and develop ways to ensure the health record is ideal for our company. They work with physicians and other members of the medical care team to ensure the company’s organizational goals and requirements are achieved. This position develops department goals and strategies related to the health record.
   * Responsibilities: Lead the quality data management department. Assist in developing, overseeing and managing the health record data and information. Coordinate and delegate activities by working with physicians and members of a multidiscinplinary team to achieve the organizational goals of the medical staff. Assist with creating new goals and coming up with strategies to achieve those goals.
   * Qualifications: B.A. in business administration, HIM, or realated health care field.
   * Skills and experience: Leadership, critical thinking, creative problem solving, knowledge of financial markets, proficient in technicial tools. Able to be a leader.
   * Licensure/Certification Requirements: 8-10 year experience in data information. Knowledge of SQL.
   * Additional Requirements: Knowledge of MS visio.

2. Using the the ICD-10-CM codes below, use the data map located at the CMS website to determine the ICD-9-CM equivalent codes. The website is: <https://www.cms.gov/Medicare/Coding/ICD10/2016-ICD-10-CM-and-GEMs.html>.

The ICD-10-CM codes are:

A18.01 015.00

D57.811 284.12

E06.5 24.53

H35.341 362.54

H40.1332 365.13

L13.0 694.0

O36.8122 655.71

S62.014G V54.12

T20.511A 941.11

**Review Quiz**

*Instructions:* For each item, complete the statement correctly or choose the most appropriate answer.

1. Which of the following is an example of an electronic data source in healthcare?

a. Radiology Information System

b. Patient consent for treatment

c. Dictation system

d. Patient’s driver’s license

2. Which of the following datasets was created to collect uniform data across the United States for inpatient patient stays?

a. Uniform Ambulatory Care Data Set (UACDS)

b. Outcomes and Assessment Information Set (OASIS)

c. Data Elements for Emergency Department Systems (DEEDS)

d. Uniform Hospital Discharge Data Set (UHDDS)

3. Which of the following is a collection of data that is organized in a manner to be accessed, managed, reported, and updated electronically?

a. Dataset

b. Database

c. Data map

d. Data index

4. Which of the following is the process of execution, implementation, and management of databases within healthcare?

a. Database management

b. Database elements

c. Database life cycle

d. Database operations cycle

5. A/n \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a list that provides guidance, indication, or other references of information contained in a database?

a. Map

b. Mining

c. Element

d. Index

6. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_ characteristic of quality data is the data being completely free from any errors?

a. Accuracy

b. Precision

c. Comprehensiveness

d. Consistency

7. This concept includes the process of data governance, patient identification, authorization validation, amendments and record corrections, and audit validation.

a. Data reliability

b. Data accuracy

c. Data integrity

d. Data completeness

8. Which of the following describes the capability for two or more electronic systems to communicate and exchange information electronically?

a. Sharing

b. Interchange

c. Mapping

d. Interoperability

9. The evaluation of data collected based on business needs and strategy is part of \_\_\_\_\_\_\_.

a. Data ownership

b. Data stewardship

c. Data quality

b. Data modeling

10. The process that focuses on the improving the quality and integrity of patient data while supporting timely coding and reimbursement is known as \_\_\_\_\_\_\_\_.

a. Data collection and accuracy process

b. Data quality management

c. Clinical documentation improvement

d. Clinical quality enhancement

11. What does a healthcare organization create when it has a unique numbering system to identify all forms used within the organization?

a. Forms standardization system

b. Forms distribution system

c. Forms quality management system

d. Form tracking system

12. What data quality characteristic is met when documenting the specific height of a patient within the health record?

a. Comprehensiveness

b. Precision

c. Definition

d. Relevancy

13. A/n \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a communication tool that during clinical documentation improvement is used to communicate between a clinical documentation improvement professional and the provider?

a. Query

b. Outcomes and Assessment Information Set (OASIS)

c. Data Elements for Emergency Department Systems (DEEDS)

d. Uniform Ambulatory Care Data Set (UACDS)

14. This document defines how records and documentation are assembled and authenticated within the hospital.

a. Ancillary staff bylaws

b. Provider contracts

c. Hospital bylaws

d. Medical staff bylaws

15. What concept refers to the process of creating management and oversight of data assets to support the organization’s mission, vision, and values?

a. Enterprise information management

b. Outcomes and Assessment Information Set (OASIS)

c. Information governance

d. Data governance

16. Which of the following is one of the principles of data stewardship as defined by the National Committee on Vital and Health Statistics (NCVHS)?

a. Individual’s rights

b. Accuracy of patient information

c. Individual’s responsibilities

d. Completeness of patient information

17. The process of completing an inventory of all electronic systems that create, transmit, and store health information is known as what?

a. System management

b. Data mapping

c. Data Mapping

d. System characterization

18. True or false. Information is single elements that define a specific characteristic about a patient.

a. True

b. False

19. True or false. The master patient index is maintained by the healthcare organization and contains patient demographic information such as name, date of birth, and health record number.

a. True

b. False

20. True or false. Data modeling is the process of creating documentation to document any business decisions made on data collection and storage systems for data.

a. True

b. False

21. True or false. Organization information management is the processes and functions created by an organization to help plan, organize, and coordinate people, processes, technology, and content to manage information systems.

a. True

b. False

22. True or false. The term that refers to an individual’s ability to analyze, assess, and reconstruct a situation to provide a solution is critical thinking.

a. True

b. False

23. True or false. Structured data is data that is entered into a specific format that is capable of being read and analyzed without human intervention.

a. True

b. False

24. True or false. The process of creating paper forms to serve a business need is referred to as form creation.

a. True

b. False

25. True or false. The oversight of the definition of structure of data elements as well as the creation, storage, and transmission of data elements is referred to as data management.

a. True

b. False