**Chapter 6**

**Data Management**

*Danika Brinda, PhD, RHIA, CHPS, HCISPP*

**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**? Principle of Accountability to implement information governance program that aligns with goals and strategies.**

2. Why would an interdisciplinary team be selected? **To provide a range of views and needs of info across the organization.**

3. What skills would the eHIM manager need**? Able to bring parties together for a common goal also to outline needs of all parties and enforce by laws and goals as needed**.

**Real-World Case 6.2**

Inciple of

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

 **Faster competition less steps less need for visits to the him by physicians cut time in half, less involment by him staff**

2. Differentiate between the 10 curtharacteristics of data quality found in the AHIMA data quality model**. Accuracy accessibility comprehensiveness consistency currency definition granularity precision relevancy and timeliness**

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

# More training set time deadlines intact by laws to set time guidelines

# 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. Credentialing Specialist

**Full Description:**

Responsible for implementing credentialing activities according to expectations defined by the Medical Staff Bylaws, Rules and Regulations, and regulatory agencies. Responsible for managing, gathering, researching, screening, and updating physician credentials for appointment and reappointment. Prepares summary evaluations of practitioner credentials for Committee review, including proctoring and quality review results.

**Job Responsibilities:**

Complete the processes to credential physicians; Enroll clients with participating insurances and contracts; Notify clients of any expired documentation; Input information to credentialing software in order to have most current data; Maintain filing of all necessary credentialing documentation; Follow up with clients and insurances in accordance with establishing guidelines for all credentialing and enrollment applications; Communicate client issues with management at an early stage; Be able to clearly and effectively communicate with physician, physician staff, billing managers and insurance companies

**Skills Required:**

Time management; Ability to organize and manage multiple priorities; Strong team player; Excellent interpersonal and communication skills; Commitment to company values; Computer proficiency (Windows, Word, Outlook, Excel, Internet)

**Alternate Title:**

Medical Staff Specialist

**Related Jobs:**

Health Information Technician
Health Information Management (HIM) Clerk

2. Your instructor will provide some unstructured data to review. Identify any gaps that exist based on the AHIMA Data Quality Management Model.

3. 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: [.ht https://www.cms.gov/Medicare/Coding/ICD10/2016-ICD-10-CM-and-GEMs ml](https://www.cms.gov/Medicare/Coding/ICD10/2016-ICD-10-CM-and-GEMs.html).

-10-CM and GEMs

[**ICD-10**](https://www.cms.gov/Medicare/Coding/ICD10/index.html)

* [Latest News](https://www.cms.gov/Medicare/Coding/ICD10/Latest_News.html)
* [ICD-10 Ombudsman and ICD-10 Coordination Center (ICC)](https://www.cms.gov/Medicare/Coding/ICD10/ICD10OmbudsmanandICD10CoordinationCenterICC.html)
* [CMS ICD-10 Industry Email Updates](https://www.cms.gov/Medicare/Coding/ICD10/CMS_ICD-10_Industry_Email_Updates.html)
* [CMS Regional Offices](https://www.cms.gov/Medicare/Coding/ICD10/CMS-Regional-Offices.html)
* [Provider Resources](https://www.cms.gov/Medicare/Coding/ICD10/ProviderResources.html)
* [Medicare Fee-For-Service Provider Resources](https://www.cms.gov/Medicare/Coding/ICD10/Medicare-Fee-For-Service-Provider-Resources.html)
* [State Medicaid ICD-10 Readiness](https://www.cms.gov/Medicare/Coding/ICD10/State-Medicaid-ICD-10-Readiness.html)
* [Payer Resources](https://www.cms.gov/Medicare/Coding/ICD10/Payer_Resources.html)
* [Vendor Resources](https://www.cms.gov/Medicare/Coding/ICD10/Vendor_Resources.html)
* [Statute and Regulations](https://www.cms.gov/Medicare/Coding/ICD10/Statute_Regulations.html)
* [ICD-10-CM/PCS Frequently Asked Questions](https://www.cms.gov/Medicare/Coding/ICD10/Frequently-Asked-Questions.html)
* [2017 ICD-10-CM and GEMs](https://www.cms.gov/Medicare/Coding/ICD10/2017-ICD-10-CM-and-GEMs.html)
* [2017 ICD-10 PCS and GEMs](https://www.cms.gov/Medicare/Coding/ICD10/2017-ICD-10-PCS-and-GEMs.html)
* 2016 ICD-10-CM and GEMs
* [2016 ICD-10 PCS and GEMs](https://www.cms.gov/Medicare/Coding/ICD10/2016-ICD-10-PCS-and-GEMs.html)
* [2015 ICD-10-CM and GEMs](https://www.cms.gov/Medicare/Coding/ICD10/2015-ICD-10-CM-and-GEMs.html)
* [2015 ICD-10 PCS and GEMs](https://www.cms.gov/Medicare/Coding/ICD10/2015-ICD-10-PCS-and-GEMs.html)
* [2014 ICD-10-CM and GEMs](https://www.cms.gov/Medicare/Coding/ICD10/2014-ICD-10-CM-and-GEMs.html)
* [ICD-10 Coordination and Maintenance Committee Meetings](https://www.cms.gov/Medicare/Coding/ICD10/ICD-10-Coordination-and-Maintenance-Committee-Meetings.html)
* [ICD-10 MS-DRG Conversion Project](https://www.cms.gov/Medicare/Coding/ICD10/ICD-10-MS-DRG-Conversion-Project.html)
* [CMS Sponsored ICD-10 Teleconferences](https://www.cms.gov/Medicare/Coding/ICD10/CMS-Sponsored-ICD-10-Teleconferences.html)

**2016 ICD-10-CM and GEMs**

The 2016 ICD-10-CM files below contain information on the new diagnosis coding system, ICD-10-CM, that is a replacement for ICD-9-CM, Volumes 1 and 2. These 2016 ICD-10-CM codes are to be used for services provided from October 1, 2015 through September 30, 2016.

**Downloads**

* [2016 Code Descriptions in Tabular Order [ZIP, 2MB]](https://www.cms.gov/Medicare/Coding/ICD10/Downloads/2016-Code-Descriptions-in-Tabular-Order.zip)
* [2016 Code Tables and Index [ZIP, 16MB]](https://www.cms.gov/Medicare/Coding/ICD10/Downloads/2016-CM-Code-Tables-and-Index.zip)
* [2016 ICD-10-CM Duplicate Code Numbers [ZIP, 64KB]](https://www.cms.gov/Medicare/Coding/ICD10/Downloads/2016-ICD10-CM-duplicate-Code-Numbers.zip)
* [2016 Addendum [PDF, 79KB]](https://www.cms.gov/Medicare/Coding/ICD10/Downloads/2016-Addendum-.pdf)
* [2016 General Equivalence Mappings (GEMs) – Diagnosis Codes and Guide [ZIP, 1MB]](https://www.cms.gov/Medicare/Coding/ICD10/Downloads/2016-General-Equivalence-Mappings.zip)
* [FY 2016 Present On Admission (POA) Exempt List (Updated 8/20/2015) [ZIP, 1MB]](https://www.cms.gov/Medicare/Coding/ICD10/Downloads/2016-POA-Exempt-List.zip)
* [2016 ICD-10-CM Guidelines [PDF, 1MB]](https://www.cms.gov/Medicare/Coding/ICD10/Downloads/2016-ICD-10-CM-Guidelines.pdf)
* [2016 Reimbursement Mappings – Diagnosis Codes and Guides [ZIP, 449KB]](https://www.cms.gov/Medicare/Coding/ICD10/Downloads/Reimbursement_Mapping_dx_2016.zip)

The ICD-10-CM codes are:

A18.**01 tuberculosis of spine**

D57.811 **sickle cell disorder with acute chest syndrome**

E06.5 **chronic thyroidbitis**

H35.341 **Macular cyst, hole, or pseudohole, right eye**

H40.1332 **Pigmentary glaucoma, bilateral, moderate stage**

L13.0 **Dermatitis herpetiformis**

O36.8122 **Decreased fetal movements, second trimester, fetus 2**

S62.**014G Nondisplaced fracture of distal pole of navicular [scaphoid] bone of right wrist, subsequ**

T20.511A **Corrosion of first degree of right ear [any part, except ear drum], initial encounter**

**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

**. Mapping c**

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**