Check Your Understanding 1.2, page 11

1. AHIMA’s certification that addresses data acquisition and management is ________________.
   a. CHDA
   b. RHIA
   c. RHIT
   d. CCS
   Correct answer is a. CHDA.

Check Your Understanding 3.1, page 45

7. Which of the following is not an example of any of the three aspects of “Triple Aim”?
   a. ABC Hospital increased its profit margin by 7%
   b. XYZ Hospital was able to decrease the radiology wait time by 20% by improving training of scheduling staff
   c. ABC Hospital decreased its nosocomial infection rates by installing hand sanitizers at elevators and stairways
   d. XYZ Hospital showed a 5% decrease in Type II diabetic patients after coordinating menu plans with local grocery stores

   **Rational:** A major reason why healthcare professionals need quality data and information is to evaluate and improve performance or personnel and institutions. The “Triple Aim” concept was developed by the Institute for Healthcare Improvement (IHI) to achieve this goal. The three aspects of Triple Aim are

   - Improve the patient experience of care
   - Improve the health of the population
   - Reduce the per capita cost of healthcare
8. In order to better prepare for hurricane season, Sunshine Hospital uses a variety of statistical models to help them figure out how to streamline the admissions process for emergency patients, determine what type of backup generators would meet their needs during a blackout, and determine which additional clinical staff will be needed during future disasters. This type of analytics is referred to as
a. simplistic
b. descriptive
c. predictive
d. **prescriptive**
**Rational:** Prescriptive analytics uses information generated from descriptive and predictive analytics and modelling to determine a strategy for the best outcome and/or to suggest a course of action to solve a problem. Once the COVID-19 pandemic slows or ends, prescriptive analytics will be used to improve the preparation and mitigation efforts that government and healthcare organizations must do to lessen the impact of the next pandemic.

9. Edward is responsible for evaluating the content of the new COVID-19 database. The number of cases in the database do not match up with the initial numbers from the Infection Control Department. He is reviewing all entries to determine if there are any duplicate or repeat entries, if all data fields are entered correctly, and to identify any missing data points. The process he is performing is called:
   a. data mining
   b. **data scrubbing**
   c. data modeling
d. data stewardship
**Rational:** Data scrubbing or cleansing involves the detection, removal, and correction of incorrect, incomplete, or poorly formatted data in health information technology systems. It deals with the detection and elimination of duplicate or redundant information, mistakes during data entry, invalid values, or non-populated values within each information system.

10. Amanda is an HIIM professional with 10 years’ experience in a variety of healthcare settings. When she discusses her role in a healthcare organization she talks about managing personnel and processes that protect patient information, meets all federal, state, and accrediting rules and regulations, for acquiring, storing, and releasing information to authorized requestors. These activities are also known as:
   a. data mining
b. data scrubbing

c. data modeling

d. data stewardship

**Rational:** Data stewardship is carried out by a network of designated employees who are responsible for managing, collecting, viewing, storing, sharing, disclosing, and otherwise making use of personal health information. Health data stewardship is the management and responsibilities of an activity according to its established goals and objectives, regulatory and accreditation conditions, and other organizational obligations to guarantee that health information is used appropriately.

11. Part of Jackson’s job as the privacy officer is to examine who, when, and where patient data was put into the EHR. Where would Jackson find this information?

a. metadata
b. data repository
c. data mining
d. data warehouse

**Rational:** “data about data,” but this definition oversimplifies the concept. A better definition is “structured information used to increase the effective use of data” (Johns 2020, 83). It includes the electronic time stamp of when data was created, accessed, or manipulated.

Check Your Understanding 8.1, page 180

1. Sarah, the Scanner Technician, is preparing documents to scan into the EHR system. In order to differentiate between the various documents, she must place a page that has a specialized barcode on it that contains identifying information about the following document in between each document. Pages that tell the scanner information about the page(s) that follow are called ____________.

a. Target sheets
b. Automatic forms processing
c. Barcodes
d. Indexing
Rational: Target sheets are pages that contain only a barcode that tells the scanner and, ultimately, the computer the content of the pages that follow.

2. For each set of patient documents, Sarah must also create a record of the names, dates, contents, and types of documents therein contained to help catalog this information. The process that Sarah is performing of getting and listing specific information about a document so that it can be retrieved easily from a DMS is referred to as
   a. Scanning
   b. Target sheets
   c. Indexing
   d. Routing

Rational: An index is an organized (usually alphabetical) list of specific data that serves to guide, indicate, or otherwise facilitate reference to the data. These indexing tools allow the user to locate and retrieve a specific patient’s health record, a specific encounter, and even a specific document through the use of indexing by entering search criteria into one or more of the index fields.

3. It has come to Anne’s (the HIM Assistant Director) attention that a large amount of printer paper is being sent to the Nursing floors. She’s heard that nurses are printing patient documents to make notes on while working with patients. The pages are thrown away after the nurse inputs the appropriate notes into the EHR, a significant violation of HIPAA. What is the best tool Anne would use to help identify who, where, when, and how often this occurs?
   a. Provider authentication
   b. Password protection
   c. Print tracking log
   d. Biometric authentication

Rational: A print tracking log, similar to an audit log, that indicates who requested or submitted the print order, where the printing occurred (which printer was used and in what area of the healthcare organization), date and time of printing, what forms or
reports were printed, and any other pertinent information the healthcare organization deems appropriate.

4. Dr. Randolph, the chief radiologist, has asked that any radiologic or imaging scans being input into the DMS be enlarged to twice the normal size. The older radiology system doesn’t enlarge the images as clearly as the DMS. You instruct Sarah to do which of the following to oblige Dr. Randolph’s request?

______________

a.  **Annotation**  
b.  Abstracting  
c.  Analytics  
d.  Auditing  

**Rational:** Annotation is the ability to add to the image in some way. Because the image may be a legal document, the image itself cannot be altered; however, an overlay to the document will show the annotation.

5. Dr. Smith receives an alert that the antibiotic that she is trying to prescribe for Mr. James is contraindicated since he is allergic to it as noted in his medical history of three years ago. In addition to the alert, the computer system provides a list of different antibiotics that would be more appropriate for his care. It asks which one she would choose to order for the patient. This is an example of:

A.  CDI  
B.  DMS  
C. Value-based healthcare  
D. CDS  

**Rational:** CDS encompasses a variety of tools to enhance decision-making in the clinical workflow. These tools include computerized alerts and reminders to care providers and patients.

Check Your Understanding 11.1, page 255

1. Identify the legislation that provided the economic stimulus money to help the US out of a
recession and provided specific funding for the advancement of HIT.

a. HIPAA
b. HITECH
c. ADA
d. ARRA

The American Recovery and Reinvestment Act (ARRA) was enacted to stimulate the US economy during a recession. A significant portion of ARRA was dedicated to expanding the use of HIT to improve the business efficiency and effectiveness of healthcare organizations while increasing patient safety and positive health outcomes. This part of the ARRA legislation is the Health Information Technology for Economic and Clinical Health (HITECH) Act which dedicated more than $19 billion to developing HIT, implementing workforce education and training, certifying EHR products, establishing standards and vocabularies, and driving electronic security and privacy regulations into the 21st century.

2. Dr. Michaels orders an antibiotic for her patient, Millie, who has been diagnosed with a UTI. The nurse verified which pharmacy Millie uses when she did the initial assessment for the appointment. Millie can now leave the doctor’s office and the antibiotic will be ready for pick up on her way home. This process of a physician ordering medication to a specified licensed pharmacy is termed:
   a. E-prescribe
   b. E-drugs
   c. E-meds
   d. EMAR

Nonetheless, the pharmacy must be able to securely receive a verified prescription from a licensed provider and accurately provide the correct medication and dosage for the specified patient, this is termed e-prescribe.

3. Dr. Willis is a pediatric cardiologist in Atlanta, GA. He has a former colleague, Dr. James, now located in Tallahassee, FL. Dr. James wants a consult regarding heart surgery for his seven-year-old patient. Scans, x-rays, and all diagnostic notes are sent electronically to Dr. Willis. They have several video meetings to discuss the case.

Identify the concept that describes the ability for healthcare providers and their associates, regardless of location, to swap healthcare data seamlessly and meeting all interoperability and national standards to provide patient-centered care.

a. RHIO
b. HIE
c. NHIN
d. ONC

Health information exchange (HIE) allows doctors, nurses, pharmacists, other health care providers and patients to appropriately access and securely share a patient’s vital medical information electronically—improving the speed, quality, safety and cost of patient care.

4. Simone, the EHR Coordinator, is performing part of the annual review of HIE
efficiency. Since there are several new providers in town, she wants to verify the integrity of all authorized health information that is sent and received to various healthcare organizations through the HIE. Identify the principle that Simone is testing that describes the unified and smooth exchange of information among various healthcare providers and information systems and software applications.

a. Privacy  
b. Confidentiality  
c. Infrastructure  
d. Interoperability  
Interoperability is the capability of different information systems and software applications to communicate and exchange data.

5. Peter, the IT Director, has nicknamed the hospital’s EHR system after the president who initiated the push for health information to be completely computerized. President _______________ (and hence the nickname) is responsible for the establishment of the ONC and laying the foundation for HIE.

a. Barack Obama  
b. Bill Clinton  
c. George W. Bush  
d. Donald Trump  
The ONC was established in 2004 as a result of an executive order by President George W. Bush and is a permanent agency within the Department of Health and Human Services.

6. Viola, the HIM Director, is discussing new hardware her department needs in order to accommodate the increased volume of electronic requests for health information. Identify the type of interoperability that Viola is addressing that deals with the functions of actual computers and other hardware used during HIE?

a. Process  
b. Technical  
c. Semantic  
d. Syntactic  
Technical: Based on the hardware and equipment connectivity used in the exchange, this type of interoperability allows any computer or device to exchange data with another computer or device without corrupting the data or creating errors.