Answer Key

For Foundational Curriculum

Unit Activities, Exercises and Quizzes:

Clusters 3-4/Modules 4, 5, 6 and 7

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Unit 12 - Review Exercise/Activity

- Regard the following sample email. Jo Blanc would like to communicate with his boss. Please rewrite his email, including subject, etc.

Date: Monday, Jan 29, 2018
From: jo@foundcurrhealth.com
To: maria.h@foundcurrhealth.com
SUBJECT: RE: Question you asked

Patient Jane Doe's weight is still an issue. I can't enter it into the EHR. But I can't talk about that right now. I don't know when the documentation is going live for FC Health Industries. I am too busy to reply right now. Srry! Maybe I'll get back to you Friday.

Best regards,

Jo Blanc, FC Health Industries

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Unit 12 - Review Exercise/Activity Key

Date: Monday, Jan 29, 2018
From : jo@foundcurrhealth.com
To: maria.h@foundcurrhealth.com
SUBJECT: RE: Question you asked

Dear Maria,

Due to patient confidentiality, I cannot discuss patients in emails. Also, I do not know when the documentation is going live for FC Health Industries. I will respond back to you on Friday.

Best regards,

Jo Blanc,
FC Health Industries

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Unit Exam

1. Which of the following is not an approved use of the internet at work?
   a. Social media posts on behalf of your organization
   b. Searching for medical information
   c. Communication with a patient
   d. Research of medical procedures on questionable sites
2. Which of these policies come first and foremost?
   a. Use advice from friends and colleagues exclusively for correct usage of the internet, desktop settings and web-based tools
   b. Use your best judgement, regardless of directions from colleagues or your organization for correct usage of the internet, desktop settings and web-based tools
   c. Always consult your organization's policies and procedures for approved usage of the internet, desktop settings and web-based tools
   d. Use advise from the internet itself regarding correct usage of the internet, desktop settings and web-based tools

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Unit Exam (cont'd)

3. **Fill in the blank**. Material that is referenced in presentations, publications or reports, including graphics, should be *cited*.
4. True or False. Is it imperative to ensure others know your password on a shared work computer?
   a. True
   b. False

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Unit Exam (Cont'd)

5. Which of the following is an approved use of printing electronic documentation from your organization?
   a. Private copies to backup Protected Health Information at home
   b. Printing multiple copies to ensure redundancies are made
   c. Printing Electronic Health records regarding the transfer of a patient to a facility that does not have online records
   d. None of the above

6. Which of the following programs does not aid in the process of spreadsheet development?
   a. Microsoft® Excel
   b. OpenOffice™ Calc
   c. Google Docs
   d. Microsoft ® PowerPoint

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Unit 13 Review Exercise/Activity

1. Name three of the landscapes in which IT operates within healthcare:
   - *patient care areas*
   - *provider offices*
   - *networked areas including the infrastructure of the facility*
   - *equipment areas such as radiology*
   - *operating theaters*
   - *business offices*
   - *data warehouses*
   - *IT support centers*
   - *off-site areas, where redundant backup servers and other devices ensure continuity and security of data*
2. Why is a simple audit trail not the same thing as data provenance?
   Because data provenance provides the ability to trace and verify the creation of that clinical information, how it has been used or moved among different databases and systems, as well as how it is altered throughout its lifecycle, a simple audit trail within an organization does not constitute data provenance

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Unit 13 Review Exercise/Activity (cont'd)

2. Name three system design tools:
   - *Research: The first step of the design process. It includes the study of potential users, their behavior, goals, motivation, and needs. It includes formal Needs Assessments.*
   - *Requirements/Functional Analysis: This second tool in the Systems Design kit includes performing an analysis of the requirements of the system and the functionality that is planned for the system and users. It includes requirements for inputs, outputs, storage, processing, system control, and backup or recovery.*
   - *Information Architecture (IA) and Development: This is the third tool in the design process. It is the heart of the design process. This is the structural design and architecture of the system and shared information environments. This tool results in development of a system that is functional, deployable and usable.*
   - *Physical Design: This is the tool where three types of design, user interface design, data design and process design take place. Also, graphic/visual design occurs, including use of imagery, color, shapes, typography, and form to enhance usability and improve the user experience, particularly as it relates to healthcare.*
   - *Piloting/Prototyping: The result of this stage is a draft version of the system that will then be tested by a set of potential or other end users through a series of test use cases.*
   - *Testing (or Usability Testing): This is a core part of the overall UX design process. It is a technique used in user-centered interaction design to evaluate a product by testing it on users.*

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Unit Exam

1. Which of the following is an example of an external IT system?
   a. clinical decision support system within the hospital's EMR
   b. community pharmacy information system in a neighboring village
   c. laboratory information system within the hospital's EMR
   d. hospital's emergency room tracking module

2. Which of the following statements about data provenance is false?
   a. It captures information about data as it moves through health systems
   b. It plays no role in data privacy and security
   c. Data may be captured differently in one organization from another organization
   d. Sometimes clinical information may be changed, modified or altered

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Unit Exam (cont'd)

3. "A diagram of all the requirements components that have been compiled from various workflow diagrams, business process (re)designs, and clinical workflow process improvement initiatives" describes which of the following system design tools:
   a. *Requirements Traceability Matrix (RTM)*
   b. Information Architecture (IA)
   c. Piloting
   d. Usability Testing

4. _____ and _____ are two processes that can be used to analyze or develop data as a basis for technical or managerial decision making:
   a. Fault and performance management
   b. Business analysis and process management
   c. *Modeling and simulation*
   d. Enterprise management and financial engineering

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Unit Exam (cont'd)

5. Which process extends Failure-Mode Effects Analysis and highlights failure modes with a relatively high probability and severity of consequences:
   a. Root Cause Analysis (RCA)
   b. Fault-Tree Analysis (FTA)
   c. Failure-Mode Effects Analysis (FMEA)
   d. Failure mode, effects, and criticality analysis (FMECA)

6. Which of the following is not a systems control tool?
   a. a measures that assesses the system status
   b. a control that prevents or eliminates problems or issues within the system
   c. a method for implementing a process
   d. a control that initiates immediate response to demands that are placed on the system

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Unit Exam (cont'd)

7. Testing that "helps to identify the maximum operating capacity of an application as well as any bottlenecks" describes:
   a. volume testing
   b. bottleneck testing
   c. functional testing
   d. load testing

8. Testing that "attempts to discover the specific point where failure occurs" describes:
   a. reliability testing
   b. regression testing
   c. recovery testing
   d. requirements testing

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Unit Review Exercise/Activity

Find examples on the Internet of these types of data structures used in healthcare. Use the definitions supplied in this unit for reference.

- A healthcare data set
- Two or more examples of a record within that data set
- Two or more examples of a data field within that data set

Answers may vary:

- *See https://www.europeandataportal.eu/en/homepage for ideas in Europe*

and

- *https://www.healthdata.gov/search/type/dataset in the United States for ideas*

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Unit Exam

1. Which of these are an example of first generation computer programming language?
   a. *Binary Code*
   b. An assembly language that uses words to represent instructions, translated into machine code for application
   c. High Level General Purpose Language
   d. None of the above

2. Which of these are an example of second generation computer programming language?
   a. *Assembly Language*
   b. Numerical Machine Code
   c. Languages such as Java, or HL7
   d. None of the above

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Unit Exam (cont'd)

3. Which of these are an example of third generation computer programming language?
   a. 01100001
   b. *Languages such as Fortran, C, or C++*
   c. "if" "or" "end" "start"
   d. All of the above

4. Which of the following is not an accurate definition of hardware and software?
   a. Hardware is the material you can touch and software is abstract
   b. *Hardware is made of software and software is a specific set of programs*
   c. Hardware is made up of physical devices like tablets and software only exists in the digital world
   d. Hardware includes printers, cables, and screens while software includes files and applications

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Unit Exam (cont'd)

5. Which is the order of general operations for a computer?
   a. Storage, input, processing, output
   b. Input, storage, processing, output
   c. Input, processing, output, storage
   d. Input, processing, storage, output

6. **Fill in the Blank**: Computer *coding* is using a system of signals (most basically, *binary* code, or zeros and ones,) which is used to represent letters or numbers in transmitting a message.

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Unit Exam

7. What does GUI stand for and what is its significance in clinical systems?
   a. General user input; the input entered into programs to be standardized by programmers
   b. General user input; the input processed into output by all users in C++
   c. Graphical user interface; to integrate new users graphics
   d. Graphical user interface; to improve the usability of clinical information systems

8. What is this an example of? *Select a date: __.__.__ to __.__.__ (09.09.1980 to 09.10.1980)*
   a. A data field
   b. A date field
   c. Both A. and B.
   d. None of the above

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Unit Review Exercise/Activity

1. Name three examples of secondary data

   Secondary data includes include birth, cancer, or cardiac registries. Secondary data includes original primary data that has been taken from an EHR, research project, drug study, or other primary source, that is now used to:

   - *Protect and enhance public health*
   - *Develop security and confidentiality algorithms and test de-identification routines*
   - *Conduct additional research (re-use of data)*
   - *Develop and apply decision support for health care providers*
   - *Improve patient safety and quality*
   - *Educate and credential healthcare providers and assess training activities, etc.*

2. Describe the patients rights in personal health data *The patient can view and use all of their data and they can choose whether the data can be shared or not. The patient has a right to know who has accessed their data.*

3. Explain the single sign-on (SSO) process *Single sign-on means a common user ID and password for several systems, which are related but technically independent.*

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Unit Exam

1. Primary data can be best defined as:
   a) data collected during a SOAP review at a patient's first appointment
   b) data collected from Patient Mary B. as part of a new diabetic drug study
   c) The data of Patient Mary B., which may be given to registries, researchers, and others, to be used by for a different purpose than the original use
   d) data used for other purposes than those originally given to the original researcher
2. Secondary data can be best defined as:
   a) data collected from a family member in an emergency
   b) data collected from Patient Johannes B. during a sleep study
   c) de-identified data collected from Patients Mary B. and Johannes B. and aggregated into a new collection of data regarding populations in Europe
   d) data contained within Patient Mary B.'s and Patient Johannes B.'s electronic health records

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Unit Exam (cont'd)

3. Which of the following statements is true?
   a. *Privacy of health records helps organizations determine which data can be collected on a patient*
   b. Privacy of health records relates to the technical and mechanical measures required to keep a record safe
   c. Confidentiality statements are rarely required for eHealth workers
   d. Security measures include open dissemination of identified primary patient data to third parties with or without consent
4. Which of the following events occur during a single-sign on to a hospital's enterprise system?
   a. A single computer application is opened
   b. A username and six-digit password are always required
   c. Each application is accessed after a sequenced but separate logon
   d. *You are simultaneously logged on to independent but linked software programs*

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Unit Exam (cont'd)

5. A software-based security system that uses rules to control incoming and outgoing network traffic describes which of the following terms?
   a. user authentication
   b. audit trail
   c. *firewall*
   d. encryption

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Unit Review Exercise/Activity

1. Use HITComp to find the definition, role type and level for each of the following HIM roles:
   a) Head of Information Management and Technology/HIM Director *HIM Director: The Health Information Management Director oversees operations and provides leadership to the health information management (HIM) department. Coordinates health information systems and processes to assure cost effective and quality conscious operations. Collaborates with other healthcare professionals to ensure appropriate measures are in place to maintain and safeguard the privacy, confidentiality, and security of patient health information. Role Type: Supervisory/Managerial. Level: Expert.*
   b) Manager of Health Information Services/HIM Manager HIM Manager: The main duty of health information managers is managing and securing *patient records. They spend a lot of time working with computers and software to comply with federal mandates for electronic storage of patient information. Health information managers must make sure that these records are accurate and complete since they may be used for research or quality management. They also must make sure that databases are secure and may only be accessed by authorized personnel. Role Type: Supervisory/Managerial. Level: Advanced*
   c) Health Records Assistant/Health Information Clerk *Health Information Clerk: Health Information Specialists and Health Records clerks work in tandem with Coding specialists and Health Information Technicians in handling medical data. Professionals in this field typically work in hospitals, doctors' offices, hospices, and ambulatory facilities. Duties include data entry and retrieval, in addition to claims processing and data modeling. Health information specialists also assist in maintaining administrative data and maintaining the integrity of records. They also frequently liaise between patients/consumers and health professionals in gathering data necessary to the release, storage, copying and transferring of health information in electronic health records, patient portals, etc. Role type: Operational/Technical. Level: Intermediate*

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Unit Review Exercise/Activity (cont'd)

2. What is ROI? *ROI, or Release of Information, is the rules, regulations and guidelines within an organization that pertain to the distribution of health information to individuals, entities or others*
3. What is the importance of confidentiality to HIM? *Confidentiality in health care refers to the obligation of professionals who have access to patient records or communication to hold that information in confidence. This professional obligation to keep health information confidential is core to the HIM profession and is supported in professional association codes of ethics.*

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Unit Exam

1. Which of the following is one of the roles of Health Information Management?
   a) Manage patients
   b) Manage the IT department
   c) Release information to patients
   d) Inform providers on medication processes
2. Which of the following is not true about the benefits of electronic health records?
   a) Scanning easily converts paper records to structured documents
   b) It is easier to send electronic data for consultations than paper data
   c) Electronic health data can be stored on a server and accessed anywhere with proper authentication
   d) Unless copies are made, a paper chart stays inside the organization, and does not move with a mobile patient

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Unit Exam (cont'd)

3. HIM professionals include all of the following, except:
   a) Coding professionals
   b) Registered Health Information Technicians
   c) Health Information Managers
   d) Radiological Technicians
4. What is "the set of multi-disciplinary structures, policies, procedures, processes and controls implemented to manage information at an enterprise level"?
   a) Health Information Management
   b) Medical Classification Systems
   c) Information Governance
   d) Release of Information

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Unit Review Exercise/Activity

Match the term on the left with its definition on the right

1. Bundled Payments *(h)*
2. Capitation *(f)*
3. Charge Capture *(a)*
4. Chargemaster *(d)*
5. Fee-for-Service *(j)*
6. Medical Billing Cycle *(b)*
7. Revenue Cycle Management *(i)*
8. Remittance Processing *(g)*
9. Utilization Review *(c)*
10. Value-Based Services *(e)*

a. compiling all relevant charges so that providers get paid for their services
b. the entire process of billing and payment for health care services and treatment
c. evaluating the appropriateness and medical necessity of health care services
d. an item master that contains all the medical supplies, equipment and other tools used in a hospital
e. where payment is dependent on the quality of care, rather than the quantity of care
f. where the provider is paid a set amount for each enrolled person assigned to them
g. the processing and clearing of payments where ultimately a payment is accepted or rejected
h. reimbursing providers for episodes of care, such as DRGs
i. utilizing the EHR as well as medical billing software to track the financial aspects of patient care episodes
j. a payment model where healthcare services are unbundled and paid for separately

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Unit Exam

1. Which of the following best describes Revenue Cycle Management?
   a) It can be divided into eight distinct steps
   b) It describes all the financial processes involved in healthcare
   c) It utilizes quality of care measures versus quantity of services
   d) It describes all the medical supplies, equipment and other tools that are used in medical care
2. Which of the following is true about the Medical Billing Cycle?
   a) Four steps involve types of care processes
   b) Two steps involve bill creation
   c) Two steps involve patient collections
   d) Four steps involve registration

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Unit Exam (cont'd)

3. In the context of medical billing, a health payer could describe all of the following, except which?
   a) an insurance company
   b) a government entity
   c) a provider
   d) a patient
4. "A process that captures information on medical-surgical products, and stores the information in item masters" best describes which of the following?
   a) Supply chain management
   b) Revenue cycle management
   c) Medical cycle billing
   d) Pay for performance

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Unit Exam (cont'd)

5. Which payment model provides payments or incentives for meeting certain performance measures?
   a) capitation
   b) DRG-based bundled payments
   c) fee-for-services
   d) pay-for-performance
6. Which of the following payment models would most likely pay for all charges associated with an appendectomy?
   a) capitation
   b) DRG-based bundled payments
   c) fee-for-services
   d) pay-for-performance

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Unit Review Exercise/Activity

1. What are the five steps of Risk Management? *Identify, Analyze, Rank, Respond and Review*
2. A computer virus has been discovered on a physician's work laptop by the IT department. No further information is known, but a Help Desk ticket has been opened. This is thought to be a potential risk to the organization. At which step in risk management is this discovery? *Identify*
3. A new employee compliance training program has been developed to teach staff about internet security policies and procedures. At which step in risk management is this action? *Review*

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Unit Review Exercise/Activity (cont'd)

4. What are the four ethical principles?

   a. *justice: a concern for fairness, peace, and genuine respect for people*

   b. *autonomy: freedom from external control or influence; independence*

   c. *nonmaleficence: involves an ethical and legal duty to avoid harming others*

   d. *beneficence: actions done as a benefit or to improve the situation of others*

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Unit Exam

1. The legal health record is all of the following, except which?
   a. The documentation of services provided as legal testimony regarding the patient's illness or injury, response to treatment, and caregiver decisions
   b. Health documentation that may physically exist in separate and multiple paper-based or electronic systems
   c. Data that supports decisions made in a patient's care
   d. All revenue and business data of a health organization
2. Which of the following statements about PHI is false?
   a. PHI is covered under both HIPAA in the US and GDPR in the European Union
   b. NPP must be given to patients for de-identified secondary health information in the United States
   c. European patients have a right to health care in other European states
   d. In Europe, everyone has the right of access to protected health data which has been collected concerning him or her, and the right to have it rectified

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Unit Exam (cont'd)

3. "The goals, efforts, and steps an organization takes to abide by relevant laws, policies, and regulations" best describes which of the following:
   a. *compliance*
   b. risk assessment
   c. standards
   d. risk management
4. A decision is made to determine whether the risk is acceptable or whether it is serious enough to warrant intervention is part of which step in the risk management process:
   a. Identify
   b. Analyse
   c. *Rank*
   d. Respond

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Unit Exam (cont'd)

5. "The ethical principle of the quality of being honest and having strong moral principles" best describes which of the following:
   a. morality
   b. data integrity
   c. integrity
   d. accountability
6. Which of the following would not be part of the reflective equilibrium cycle?
   a. justice, autonomy, nonmaleficence and beneficence
   b. morality
   c. regulations such as HIPAA or GDPR
   d. CE and NPP

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Unit 19 Review Exercise/Activity

1. Name three types of medical coding/classification systems

   ICD-10, ICD-11 (International Classification of Diseases)

   - *Procedural codes*
     - *Numbers or alphanumeric codes used to identify specific health interventions taken by medical professionals*
     - *Examples:* ***ICPM (International Classification of Procedures in Medicine), ICHI (International Classification of Health Interventions), CPT (Current Procedural Terminology)*** *(US)*
   - *Nomenclatures*
     - *Used to define terminologies*
     - *Separate listing and code for every clinical concept*
     - *Examples:* ***SNOMED (Systematized Nomenclature of Medicine)*** *and* ***LOINC (Logical Observation Identifiers Names and Codes) (US)***

2. An 82-year-old woman presents to her physician with complaints of left shoulder, foot and ankle pain. Her doctor diagnoses her with left shoulder gout and foot and ankle arthritis. Which of the ICD-10 codes on slide 13 would likely apply?

   M1A.3120, M06.072

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Unit Review Exercise/Activity (cont'd)

3. A 10-year-old presents to his doctor with fever and right ear pain. Examination reveals acute right middle ear infection with slight tearing of the eardrum. No drainage is found. The patient's parents are smokers, and the patient is often exposed to cigarette smoke in the home. The doctor makes diagnoses. Which of the ICD-10 codes on slide 11 would likely apply? *H65.01, Z77.22, H72.01*
4. Bonus: What is the ICPM code for the routine procedure to view the ear? *1-240*

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19 - Unit Exam

1. Which of the following is not one of the routine uses of medical coding?
   a) Processing medical claims
   b) Statistical analysis
   c) Diagnosing diseases
   d) De-identifying a patient's health information
2. Which of the following is true regarding ICD-10?
   a) It was first developed in 1983
   b) It was developed by the World Health Organization
   c) It has been used in the United States since 1979
   d) It is primarily a procedural coding classification system

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Unit Exam (cont'd)

3. Which of the following classification systems is used for medical terminology?
   a) ICD
   b) SNOMED
   c) CPT
   d) ICPM
4. Which of the following classification systems is used to code illnesses and diseases?
   a) ICD
   b) SNOMED
   c) CPT
   d) ICPM

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Unit 20 Review Exercise/Activity

Match the informatics term on the left with its definition on the right

1. biomedical informatics *(e)*
2. clinical informatics *(b)*
3. nursing informatics *(h)*
4. population health informatics *(d)*
5. dental informatics *(a)*
6. public health informatics *(g)*
7. medical informatics *(j)*
8. translational bioinformatics *(c)*
9. clinical research informatics *(f)*
10. computational health informatics *(i)*

a. the intersection of health informatics and dentistry as a whole
b. blends information technology into clinical care processes, usually within a health system
c. the evolution of clinical informatics methodology to encompass biological observations
d. the intersection of public health informatics and consumer informatics
e. the interdisciplinary field that studies the effective uses of biomedical data and knowledge for scientific inquiry
f. applies the core foundations, principles, and technologies of health informatics to clinical research
g. the systematic application of knowledge about systems that capture, manage, analyze and use information to improve population health
h. integrates nursing science with information management and analytical sciences to enhance data and knowledge
i. study of the underlying principles of computer science that allow for medically related algorithms and systems to be developed
j. the interdisciplinary study of the design, development, adoption and application of IT-based innovations in healthcare services

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Unit 20 Exam

1. Informatics is the intersection of which of the following?
   a. Science and process improvement
   b. Technology and change management
   c. Processes, information and people
   d. Tools, research and technology
2. Health informatics comprises which two main sub-disciplines?
   a. clinical informatics and biomedical informatics
   b. clinical informatics and population health informatics
   c. medical informatics and nursing informatics
   d. biomedical informatics and population health informatics

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Unit Exam (cont'd)

3. "The scientific field that focuses on medication-related data and knowledge within the continuum of healthcare systems " best describes which of the following:
   a. *pharmacy informatics*
   b. dental informatics
   c. medical informatics
   d. clinical research informatics
4. What can be used to observe the ways in which humans interact with computers and technology in the healthcare setting?
   a. Information Architecture
   b. Graphical User Interfaces
   c. Population health informatics
   d. *Human-Computer Interaction*

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Unit Exam (cont'd)

5. "New technologies are constantly introduced to healthcare, but it may be difficult for the users to understand everything" describes which of the following key health informatics models:
   a. Diffusion of Innovation
   b. Technology Acceptance
   c. Disruptive Innovation
   d. Sociotechnical Theory

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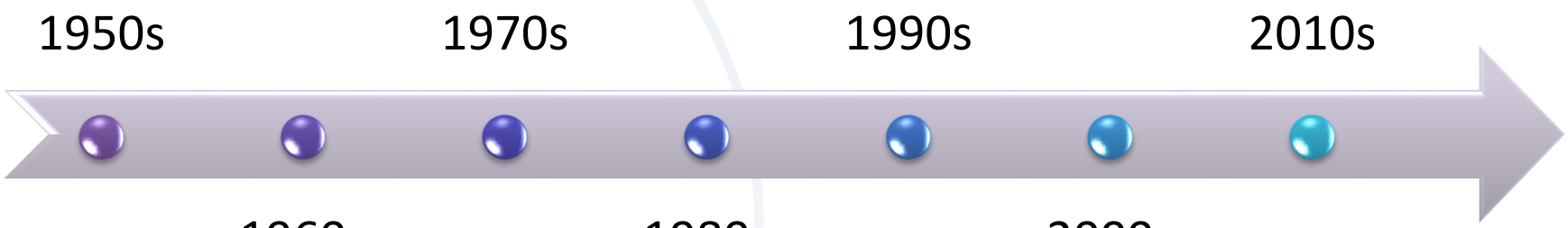
Unit 21 Review Exercise/Activity

On the timeline below, list a major event in the evolution of health informatics for each of the decades given:



1950s: Worldwide use of computer technology in healthcare began with the rise of the computers
1960s: Specialized university departments and informatics training programs began in France, Germany, Belgium and The Netherlands
1970s: Medical informatics research units began to appear in Poland and in the U.S.
1980s: The word "Information" was added to Health Management Systems Society, to become HIMSS; since then, the development of high-quality health informatics research, education and infrastructure has been a goal of the U.S. and the European Union
1990s: Data and information was written on a computer instead of a typewriter
Internet could be used for searching information
New ways of collecting data: images, imaging, sensors
Data could be faxed or scanned
Data is stored electronically
2000s: Personal Health Records have begun to be developed
One of the key foci in healthcare continuing into the 2000s was the concern with quality of care. The use of clinical guidelines and standardized protocols of care increased during this period. This is a major reason for an increased use of information technology.
*The 2000s saw an increase in using technology for remote monitoring of patients in their homes, or what has been called **telehealth.***
*Whereas **telemedicine** (the use of telecommunication and information technology to provide clinical health care from a distance) has tended to focus on treating acutely sick patients, telehealth can include monitoring patients with chronic conditions, or even working with patients through computer access, to keep them healthy.*
2010s: Data is stored online for other doctors AND the patient to see
Databases for symptoms, statistics and recommendations
Active participation from other clinicians and the patient, other than just by calling to the doctor
Social media, smart phones, internet applications and cloud storage are used for health information, education, communication and exchange

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Unit Exam

1. *True or False:*

   AMIA was started in 1967 T *F*

2. *True or False:*

   The earliest use of computers in health informatics was in dental projects during late 50s in the US

   T F

3. *True or False:*

   There were over 40 members at the first HMSS convention in the 1960s *T* F

4. *True or False:*

   The use of clinical guidelines and standardized protocols of care increased significantly during the 1970s

   T *F*

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Unit Exam (cont'd)

5. Which of the following is a challenge of health informatics?
   a. Modern statistics and datasets used to compare symptoms, diagnoses and treatments
   b. Information is easily available in a digital format for healthcare professionals, the patient and possibly by family members as well (with proper authentication and credentials)
   c. *Protection and security of data and information is not only dependent on the systems and devices, but also on the professional's actions*
   d. Electronic systems decrease the time required for scheduling, storing data and sending information

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Unit Exam (cont'd)

6. Which of the following is an HIM principle of health informatics?
   a. Contribute to the selection and utilization of appropriate information technologies to meet business requirements
   b. Contribute to ongoing evaluation of the functionality of systems so that they can evolve to support best practice in clinical care
   c. Demonstrate knowledge of analysis, design, development and implementation of health information systems and applications
   d. Demonstrate an understanding of architectural relationships between key health information technology components

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Unit 22 Review Exercise/Activity

Match the life cycle process an informaticist follows on the left with its correct feature on the right

1. Research & Advise *(a)*
2. Analyse & Model *(d)*
3. Design & Develop *(i)*
4. Test & Train *(c)*
5. Implement & Activate *(h)*
6. Maintain & Support *(e)*
7. Assess & Evaluate *(a)*
8. Improve & Optimize *(f)*
9. Reassess & Plan *(b)*

a. composing and executing usability, satisfaction, device, needs and readiness assessments
b. planning of new staff needs and workflows due to system and/or technology implementations
c. creating and carrying out a set of instructions to be performed on the system in a test environment, forming the foundation for training materials
d. taking longitudinal data, learning from it, and folding that knowledge back into the EHRs and other information systems technology tools
e. providing arm-chair training, back-fill staffing for clinicians in training, and other help and assistance immediately after go-lives
f. utilizing data obtained from systems to support quality improvement initiatives
g. providing evidence that helps inform policies and procedures, and guides innovation and design of health care technologies
h. helping ensure go-live planning incorporates topics such as change management, user engagement and organizational readiness
i. assessing and integrating into the design all aspects of technology, including device needs, system usage and ergonomics

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Unit Exam

1. Health informatics is the intersection of:
   a. people, places and technology
   b. people, process and technology
   c. places, process and technology
   d. people, process and places
2. Which of the following is a true statement about the health informatics discipline?
   a. Great technology can substitute for workforce and best practices in processes
   b. New technologies should be applied before improving processes when necessary
   c. People are the focus of the processes and technology
   d. Skills and education of people have little effect on process and technology

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Unit Exam (cont'd)

3. The health informatics life cycle includes which of the following steps:
   a. teach & train
   b. test & aggregate
   c. program & stabilize
   d. maintain & support
4. "Engaging clinical champions to lead the process of putting the system into effect" describes which step in the health informatics life cycle?
   a. implementation & activation
   b. maintenance & support
   c. assessment & evaluation
   d. reassessment & planning

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Unit Exam (cont'd)

5. "Enhancing individual and population health outcomes, improving patient care, and strengthening the clinician-patient relationship" describes which step in the health informatics life cycle?
   a. implementation & activation
   b. maintenance & support
   c. assessment & evaluation
   d. reassessment & planning
6. "Issue documenting and resolution, and modifications to the system or technology" are all part of which step in the health informatics life cycle?
   a. implementation & activation
   b. maintenance & support
   c. assessment & evaluation
   d. reassessment & planning

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