
Exam : CPHIMS

Title : HIMSS Certified
Professional in Healthcare
Information and
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1. Which of the following is MOST important to ensure successful data integration between two systems?

- A. Data entry process.
- B. Secure data transmission.
- C. Verification of data calculations.
- D. Common data dictionary.

Answer: D

Explanation:

Successful data integration depends first on shared meaning of the data being exchanged. A common data dictionary provides the agreed-upon definitions, formats, permissible values, units of measure, and identifiers for data elements (for example: patient identifiers, encounter numbers, provider IDs, lab test codes, medication codes, and timestamps). Without this shared semantic foundation, two systems may exchange data correctly from a technical standpoint yet still fail operationally because the receiving system interprets data differently (e.g., mismatched code sets, different units such as mg vs. mcg, inconsistent field lengths, or different meanings for “discharge date” vs. “discharge time”).

While secure transmission is essential for protecting PHI (e.g., encryption in transit, authentication), it does not ensure that integrated data is accurate, comparable, or usable. The data entry process affects upstream data quality but does not resolve mapping and semantic alignment across systems.

Verification of calculations is important for analytics and reporting validation, but it occurs after the underlying data elements have been defined and mapped consistently.

In healthcare information systems management, integration success is measured by correctness and usability across workflows—achieved by standardizing data definitions and mappings through a common data dictionary (often aligned with standards and code sets) before interface build and testing.

2. Which of the following systems provide physicians with patient safety checks such as maximum dose limit?

- A. Drug vocabulary.
- B. Data warehouse.
- C. Clinical decision support.
- D. Clinical repository.

Answer: C

Explanation:

Clinical decision support (CDS) is the system capability that provides physicians with patient safety checks such as maximum dose limits, dose-range checking, allergy and drug–drug interaction alerts, duplicate therapy warnings, contraindication notifications, and guideline-based recommendations. These checks are triggered within the clinical workflow—often during computerized provider order entry (CPOE)—so that when a clinician selects a medication, dose, route, or frequency, the CDS engine evaluates the order against medication knowledge bases and patient-specific factors (age, weight, renal function, allergies, current meds). If the intended dose exceeds safe thresholds or conflicts with patient parameters, CDS generates warnings or “hard stops,” helping prevent adverse drug events before the order is finalized.

A drug vocabulary (or medication terminology/knowledge base) supplies standardized medication identifiers and reference information, but by itself it does not deliver active, workflow-based safety checking; CDS uses that vocabulary as an input. A data warehouse supports analytics and reporting, typically retrospective, rather than real-time prescribing checks. A clinical repository stores clinical data

for access and exchange; it does not inherently apply rules to interrupt unsafe ordering in real time. Therefore, the correct answer is Clinical decision support.

3. Which of the following management activities is used to increase revenue, reduce days in accounts receivable, and reduce denied claims?

- A. Revenue cycle management.
- B. Revenue optimization.
- C. Revenue accounting.
- D. Expense management.

Answer: A

Explanation:

Revenue cycle management (RCM) is the end-to-end set of administrative and financial processes that manage patient service revenue from pre-registration and eligibility through coding, billing, claims submission, payment posting, denial management, and collections. Because RCM spans the full lifecycle, it directly targets the three outcomes named in the question. First, it increases revenue by improving charge capture, ensuring accurate clinical documentation and coding, and preventing underbilling. Second, it reduces days in accounts receivable (A/R) by streamlining claim submission, improving first-pass claim acceptance, accelerating payment posting, and prioritizing follow-up on unpaid claims. Third, it reduces denied claims by strengthening front-end verification (coverage, authorization), enforcing coding and medical necessity rules, and implementing denial analytics and appeal workflows to fix root causes.

“Revenue optimization” is a broader, less standardized term that may describe strategic improvement efforts but does not specifically represent the operational discipline that controls A/R and denials across the full cycle. “Revenue accounting” focuses on financial reporting and recognition rather than operational claim performance. “Expense management” targets cost reduction, not revenue realization. Therefore, RCM is the management activity that best fits all elements of the prompt.

4. Which of the following is a set of semantic standards for exchanging data between healthcare information systems?

- A. WHO.
- B. HL7.
- C. ASTM.
- D. ISO.

Answer: B

Explanation:

HL7 (Health Level Seven) is a globally recognized standards development organization that creates frameworks and specifications for the exchange, integration, sharing, and retrieval of electronic health information. HL7 standards define both the structure and meaning (semantics) of health data exchanged between systems such as EHRs, laboratory systems, pharmacy systems, billing systems, and health information exchanges (HIEs). Examples include HL7 Version 2 messaging standards, HL7 Version 3, CDA (Clinical Document Architecture), and FHIR (Fast Healthcare Interoperability Resources). These standards enable disparate systems to interpret shared data consistently, supporting interoperability across organizational and vendor boundaries.

Option A, WHO (World Health Organization), is a global public health agency and does not create

messaging standards for system interoperability.

Option C, ASTM International, develops technical standards in many industries, including healthcare, but it is not primarily known for comprehensive health data exchange messaging standards.

Option D, ISO (International Organization for Standardization), develops broad international standards across industries, including health informatics, but it does not specifically define the widely adopted healthcare messaging framework used for clinical system interoperability.

Therefore, HL7 is the correct answer as the established set of semantic and messaging standards used for healthcare information exchange.

5. During which stage in a cloud computing adoption model would a SWOT analysis be used?

- A. Action.
- B. Planning.
- C. Evaluation.
- D. Follow-up.

Answer: B

Explanation:

A SWOT analysis is best used during the Planning stage of a cloud computing adoption model because it is a strategic tool intended to shape decisions before execution begins. In healthcare technology environments, moving to cloud services (IaaS, PaaS, SaaS) requires early alignment of business goals, clinical priorities, risk tolerance, regulatory obligations, and technical readiness. SWOT supports that planning work by identifying internal strengths (e.g., strong governance, mature security program, skilled infrastructure team), internal weaknesses (e.g., legacy integrations, limited identity management maturity, bandwidth constraints), external opportunities (e.g., scalability for analytics, improved disaster recovery, vendor-managed security capabilities, faster deployment), and external threats (e.g., cybersecurity exposure, compliance risks, vendor lock-in, outages, data residency concerns).

These insights help leaders decide what to migrate first, what to keep on-premise, what controls must be strengthened, and how to structure vendor contracts and service-level expectations. In contrast, the Evaluation stage typically focuses on comparing solutions and validating requirements through assessments, proofs-of-concept, and cost/risk analysis. Action is the implementation and migration execution. Follow-up is optimization, monitoring, and continuous improvement after go-live. Because SWOT informs strategic direction and readiness planning, Planning is the correct stage.