

Certified Health Data Analyst (CHDA) Examination Content

Outline

Number of Questions on Exam: 154

Exam Time: 3 hours and 45 minutes

DOMAIN I. DATA MANAGEMENT (32%)

TASK 1. Assist in the development and maintenance of the data architecture and model to provide a foundation for database design that supports the business' needs.

Knowledge of:

- Relationship between the data and the organization's strategic goals and priorities
- Data models (conceptual, logical, and physical)
- Basic knowledge of various architecture platforms (e.g., Oracle, SQL server)
- Relational database structure (primary key, secondary key)
- Electronic Health Record (EHR) systems
- Database language (SQL, XML, etc.)

TASK 2. Establish uniform definitions of data captured in source systems to create a reference tool (data dictionary).

Knowledge of:

- Applicable data standards (e.g., ASTM, CDISC, HL7)
- Reference classification/terminology systems and industry data sets requirements (e.g., ICD-9-CM, CPT, UB-04, SNOMED, LOINC)

TASK 3. Formulate validation strategies and methods (i.e., system edits, reports, and audits) to ensure accurate and reliable data.

Knowledge of:

- Systems testing (integration, load, interface, user acceptance)
- Industry standards (regulatory requirements)
- Best practices for auditing (audit guidelines, system audit trails, and audit logs)

TASK 4. Evaluate existing data structures using data tables and field mapping to develop specifications that produce accurate and properly reported data.

Knowledge of:

- Standard administrative healthcare data (e.g., UB-04, CMS form 1500)
- Classification systems data (e.g., ICD-9-CM, CPT, SNOMED, LOINC)

TASK 5. Integrate data from internal or external sources in order to provide data for analysis and/or reporting.

Knowledge of:

- Source systems (HIS systems, pharmacy, radiology, financial, etc.)
- Reference classification/terminology systems and industry data sets requirements (e.g., ICD-9-CM, CPT, UB-04, SNOMED, LOINC)
- Relational database structure (primary key, secondary key)
- Software applications (e.g., word processing, spreadsheet, presentation, and databases)

TASK 6. Facilitate the update and maintenance of tables for organization's information systems in order to ensure the quality and accuracy of the data.

Knowledge of:

- Applicable data standards (e.g., ASTM, CDISC, HL7)
- Source systems (HIS systems, pharmacy, radiology, financial, etc.)
- Reference classification/terminology systems and industry data sets requirements (ICD-9-CM, CPT, UB-04, revenue codes, etc.)
- Classification systems and their history (e.g., retirement of codes and their allowed reuse with new descriptors)
- Structure of the data tables
- Scheduled updates of source system content
- Industry standard maps between classification systems

DOMAIN II. DATA ANALYTICS (37%)

TASK 1. Analyze health data using appropriate testing methods to generate findings for interpretation.

Knowledge of:

- Basic principles of clinical, financial, and operational data
- Basic understanding of database query syntax (such as SQL)
- Basic understanding of SAS, or SPSS procedures
- Appropriate use of data mining techniques

TASK 2. Interpret analytical findings by formulating recommendations for clinical, financial, and operational processes.

Knowledge of:

- Quality standards, processes, and outcome measures
- Risk adjustment techniques
- Business processes (e.g., workflow, system limitations, regulatory and payor guidelines)
- Medical terminology
- Healthcare reimbursement methodologies
- Classification systems
- Industry-standard terms of clinical, financial, and operational data

TASK 3. Validate results through qualitative and quantitative analyses to confirm findings.

Knowledge of:

- Source data content and field attributes
- Qualitative and quantitative analysis techniques
- Healthcare operations to improve clinical and financial outcomes

DOMAIN III. DATA REPORTING (31%)

TASK 1. Design metrics and criteria to meet the end users' needs through the collection and interpretation of data.

Knowledge of:

- Standard healthcare data sets
- Classification systems and clinical vocabularies and nomenclature (ICD, CPT, HCPC, LOINC, SNOMED-CT, NDC, etc.)
- Basic principles of clinical, financial, and operational data
- Quality standards and outcome measures

TASK 2. Generate routine and ad-hoc reports using internal and external data sources to complete data requests.

Knowledge of:

- Database programs such as Access or SQL Server
- Basic understanding of database query syntax (such as SQL)
- Basic understanding of SAS, or SPSS procedures

TASK 3. Present information in a concise, user-friendly format by determining target audience needs to support decision processes.

Knowledge of:

- Stakeholders within healthcare delivery system
- Software applications (Microsoft Word, Excel, PowerPoint, Access)
- Appropriate modes of presentation (Web conferencing, teleconferencing, AV, etc.)

TASK 4. Provide recommendations based on analytical results to improve business processes or outcomes.

Knowledge of:

- Healthcare industry
- Stakeholders within healthcare delivery system