

# HIM-2550: DATABASE ANALYTICS, QUALITY AND TRACKING

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## Cuyahoga Community College

**Viewing: HIM-2550 : Database Analytics, Quality and Tracking**

**Board of Trustees:**

2016-06-23

**Academic Term:**

2016-08-24

**Subject Code**

HIM - Health Information Management

**Course Number:**

2550

**Title:**

Database Analytics, Quality and Tracking

**Catalog Description:**

Policies and procedures for Cancer Program Standards including the patient follow-up process. Managing follow-up files, data quality, and database management. Gathering, manipulating, storing, retrieving and classifying recorded information. Monitoring statistics and epidemiology factors.

**Credit Hour(s):**

3

**Lecture Hour(s):**

3

## Requisites

**Prerequisite and Corequisite**

HIM-2500 Introduction to Cancer Registry and Disease Management.

## Outcomes

**Course Outcome(s):**

Demonstrate methods of monitoring patient outcome and follow-up.

**Objective(s):**

1. Determine between types of follow-up for cancer patients: Active Follow-up or Passive Follow-up
2. Demonstrate and display monitoring statistics and epidemiology factors
3. List core data items needed for successful follow-up
4. Identify different methodological issues associated with performing cancer outcomes follow-up
5. Identify time frame requirements for patient follow-up and how often to perform these activities
6. Identify different costs associated with maintaining follow-up
7. Identify the different types of follow-up letters that can be developed and give examples of the content of these letters.
8. Demonstrate gathering, manipulating, storing, retrieving and classifying recorded cancer information

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**Course Outcome(s):**

Effectively describe data Linkage and record consolidation rules.

**Objective(s):**

1. Identify different sources of electronic data used for linkage of data
  2. Explain why record consolidation is necessary and give examples of the type of record consolidations
  3. Define record consolidation rules and explain the difference between consolidation accuracy and specificity.
  4. Demonstrate how high-quality text information is critical for accurate record consolidation
  5. Describe what it means to "link" data from different resources
  6. Describe Electronic Patient Matching and provide examples
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**Course Outcome(s):**

Define and explain the quality control methods, categories, characteristics, and control programs related to the cancer registry.

**Objective(s):**

1. Define Quality and list categories within quality.
  2. Describe a quality control program for a cancer registry and the determinates of quality.
  3. Define the five characteristics of data quality: accuracy, case incidence completeness, data completeness, timeliness, and consistency
  4. Identify quality control methods in cancer registry
  5. Compare and contrast Benchmarking, Total Quality Management, and Six Sigma
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**Methods of Evaluation:**

1. Discussions in online forums or in the classroom
2. Written and oral assignments
3. Glossary assignments
4. Cancer and diagnostic activities utilizing the internet
5. Quizzes, tests, and a final exam.

**Course Content Outline:**

1. Database Analytics
  - a. Data Quality
  - b. Data Tracking
2. Policies and procedures for Cancer Program Standards including the patient follow-up process
3. Managing follow-up files
4. Data quality and database management
  - a. Gathering recorded information
  - b. Manipulating recorded information
  - c. Storing recorded information
  - d. Retrieving recorded information
  - e. Classifying recorded information.
5. Monitoring statistics and epidemiology factors
6. Requirements of the Commission on Cancer for Monitoring Patient Outcome
  - a. Follow-up
7. Types and methods of the follow-up process
  - a. Cases & Frequency
  - b. Method
  - c. Data Set
  - d. Follow-up sources & other contacts
  - e. Initiation of follow-up
  - f. Follow-up responses
8. Data linkage and record consolidation
  - a. Electronic record matching
  - b. Sources of electronic data used for linkage
  - c. Types of record consolidation
  - d. Rules for determining the number of primary tumors
9. Cancer registry quality control plan
  - a. Physician review-requirements of the Commission on Cancer
10. Basic Methods, Requirements & composition for quality control
  - a. Industrial quality control
  - b. Benchmarking
  - c. Total quality management
  - d. Six Sigma
11. Characteristics of data quality
  - a. Accuracy
  - b. Data completeness
  - c. Timelines
  - d. Consistency
12. Strategies to quality control cancer registry data

- a. Visual Editing
- b. Computerized Edit Checks
- c. Recoding Audits
- d. Reabstracting Studies
- e. Statistical Analysis
  - i. Acceptance Sampling
  - ii. Process Control
  - iii. Designed Studies

## Resources

National Cancer Registrars Association. *Cancer Registry Management: Principles and Practice*. Third. Dubuque: Kendall Hunt, 2011.

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AJCC. *The American Joint Committee on Cancer TNM Cancer Staging System*. Bethesda: AJCC, 2014.

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National Cancer Institute (NCI.gov). *MP/H Multiple-Primary Histology Coding Rules*. Bethesda: National Cancer Institute, 2012.

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National Cancer Registrar Association. *Collaborative Staging Data Collection System Coding Instructions*. (part 1 and part 2). Bethesda: NCRA, 2011.

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National Institute of Health (NIH). *SEER Staging Coding Manual*. Bethesda: NIH, 2014.

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World Health Organization. *ICD-0-3 Classification of Diseases-Oncology*. 3rd Edition. World Health Organization, 2010.

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## Resources Other

Research using various cancer registry websites and articles or blogs found on the internet

National Comprehensive Cancer Network Clinical Practice Guidelines: [www.nccn.com](http://www.nccn.com)

SEER Training website: [www.training.seer.cancer.gov](http://www.training.seer.cancer.gov)

PDF files containing cancer treatments and outcomes.

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