Practice Brief: A Checklist to Assess Data Quality Management Efforts

Traditionally, healthcare data quality practices were coordinated by HIM professionals and were department-based, using paper records. These practices have evolved and now utilize data elements, electronic searches, comparative and/or shared databases, data repositories, and performance improvement techniques. Data quality management functions involve continuous quality improvement for data quality throughout the enterprise and may include data application, collection, analysis, and warehousing.

These roles are not new to HIM professionals. As custodians of medical records, HIM professionals have historically performed warehousing functions including purging, indexing, and editing data on all types of media: paper, images, optical disk, computer disk, microfilm, and CD-ROM. In addition, HIM professionals are experts in collecting data using classifications systems such as ICD-9-CM, CPT, severity of illness, and registries. Further, HIM professionals have encouraged and fostered the use of data by ensuring its timely availability, coordinating its collection, and analyzing and reporting collected data.

To support these efforts, the following checklist outlines basic tenets in data quality management for healthcare professionals to follow. Use the checklist to assess overall data quality management efforts within an organization or enterprise or for an application. Ensure that each item

- has been documented clearly
- was implemented effectively
- is appropriate
- is currently in place

Application

*The purpose for which the data are collected*

- The application's purpose, the question to be answered, or the aim for collecting the data is clear
- Boundaries or limitations of data collected are known and communicated
- Complete data are collected for the application
- Value of the data is the same across applications and systems
- The application is of value and is appropriate for the intent
- Timely data are available

Collection

*The process by which data elements are accumulated*

- Education and training is effective and timely
- Communication of data definitions is timely and appropriate
- Data source provides most accurate, most timely, and least costly data
- Data collection is standardized
Updates and changes are communicated appropriately and on a timely basis
Data definitions are clear and concise
Data are collected at the appropriate level of detail or granularity
Acceptable values or value ranges for each data element are defined. Edits are determined
The data collection instrument is validated
Quality (i.e., accuracy) is routinely monitored

Warehousing
Processes and systems used to archive data and data journals

- Appropriate edits are in place
- Data ownership is established
- Guidelines for access to data and/or systems are in place
- Data inventory is maintained
- Relationships of data owners, data collectors, and data end users are managed
- Appropriate conversion tables are in place
- Systems, tables, and databases are updated appropriately
- Current data are available
- Data and application journals (data definitions, data ownership, policies, data sources, etc.) are appropriately archived, purged, and retained
- Data are warehoused at the appropriate level of detail or granularity
- Appropriate retention schedules are established
- Data are available on a timely basis

Analysis
The process of translating data into information that can be utilized in an application

- Algorithms, formulas, and translation systems are valid and accurate
- Complete and current data is available
- Data impacting the application are analyzed in context
- Data are analyzed under reproducible circumstances
- Appropriate data comparisons, relationships, and linkages are displayed
- Data are analyzed at the appropriate level of detail or granularity
- Data are analyzed on a timely basis

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