California and Florida “In the Know” Webinar Series

Abstraction “101” An Introduction for New Abstractors

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Topics

- The driving forces behind abstraction and public reporting of healthcare quality data
- CMS and quality data reporting
- CMS requirements today
- The building blocks of CMS quality data reporting
  - The Specifications Manual for National Hospital Inpatient Quality Measures
  - The Specifications Manual for Hospital Outpatient Department Quality Measures
  - Electronic data abstraction tools
- General principles for abstraction
- Other abstraction resources
The Driving Forces – In the Beginning

- “To Err is Human: Building a Safer Health System”
  - Report issued by the Institute of Medicine in November 1999
  - Called for a comprehensive effort by healthcare providers, government, consumers, and others to reduce medical errors over the next five years

- “Crossing the Quality Chasm: A New Health System for the 21st Century”
  - Report issued by the Institute of Medicine in March 2001
  - Called for change in healthcare system processes to improve the level of quality
The Driving Forces – Legislation

- Medicare Modernization Act of 2003
  - Required hospitals to report 10 quality measures or lose 0.4% of the Medicare market basket update

- Deficit Reduction Act of 2005
  - Increased the percentage of the Medicare market basket update loss to 2% and authorized the Secretary of the Dept. of Health and Human Services to increase the number of required measures for public reporting
The Driving Forces – Legislation

- HITECH Act, 2009
  - Contains specific incentives designed to accelerate the adoption of electronic health record (EHR) systems among providers

- The Affordable Care Act (health reform bill) of 2010
  - Shifted the emphasis from payment for reporting healthcare data to payment for providing higher quality of care
  - Required the implementation of value-based purchasing (pay-for-performance) for hospitals beginning in FY 2013 (October 1, 2012)
The Driving Forces – Accreditation Agencies and Public Opinion

- The Joint Commission’s Accountability Measures, 2010
  - Quality measures that produce the greatest positive impact on patient outcomes when hospitals demonstrate improvement

- Consumer groups and the public’s demand for transparency of healthcare information
CMS and Quality Data Reporting

- Centers for Medicare & Medicaid Services (CMS), otherwise known as “Medicare,” is the largest single payer source for health care.

- Every year, CMS publishes a “Final Rule” for both inpatient and outpatient prospective payment system (PPS) hospitals.
  - Preceded by a Proposed Rule which allows healthcare providers and the public to comment on proposed changes prior to the Rule being finalized.
  - Inpatient Rule takes effect at the beginning of each fiscal year (October 1, annually).
  - Outpatient Rule takes effect at the beginning of each calendar year (January 1, annually).
CMS and Quality Data Reporting

- The Proposed and Final Rules contain information on the Quality Reporting Program for inpatient and outpatient hospital environments of care.
- In addition to defining those requirements that have been finalized for the upcoming fiscal or calendar year, the Rules also provide a summary of finalized and potential requirements for upcoming payment years.
- The details of the Hospital Inpatient and Outpatient Quality Reporting Programs and the new Hospital Inpatient Value-Based Purchasing Program are contained in these rules.
CMS and Quality Data Reporting

Three critical rules currently affecting hospital payment:

1. FY 2012 IPPS Final Rule (published 8/18/11)

2. CY 2012 OPPS Proposed Rule (Comment period closed 8/30/11, Final Rule expected to be published in November 2011)

3. Hospital Inpatient Value-Based Purchasing Final Rule (published 5/6/11)
Prospective Payment System (PPS) hospitals will lose 2% of their inpatient Annual Payment Update (APU) if they do not report quality data timely and meet other APU requirements…

including abstraction and data validation requirements.
CMS Requirements Today

CY 2012 OPPS Proposed Rule


- Prospective Payment System (PPS) hospitals will lose 2% of their outpatient Annual Payment Update (APU) if they do not report quality data timely and meet other APU requirements…

  including abstraction and data validation requirements.
CMS Requirements Today

Hospital Inpatient Value-Based Purchasing Final Rule


- Beginning with FY 2013 APU, IPPS hospitals will be eligible to receive additional money for providing high quality of care or for significantly improving the quality of care provided to inpatient acute care patients.
CMS Requirements Today

- How do Critical Access Hospitals (CAHs) fit into the Quality Data Reporting Programs?
  - Currently, CAHs are not required to participate in these programs.
  - They can voluntarily participate in both the inpatient and outpatient quality reporting programs through involvement in the Hospital Quality Alliance.

  HOWEVER...

  - Beginning with the 10th Scope of Work, CMS is requiring all Quality Improvement Organizations (QIOs) to work with CAHs and to encourage them to begin reporting both inpatient and outpatient quality data.
CMS Requirements Today

- Critical Access Hospitals (CAHs), cont.
  - The anticipation is that CAHs will be required to participate in mandatory quality data reporting within the next few years.
  - The question isn’t if CAHs will be required to participate in quality reporting and value-based purchasing; the question is when will this become a mandatory requirement?
CMS Requirements Today

- Until such time as EHRs are universally implemented and critical data fields are standardized and shown to be reliable for measuring healthcare quality, manual abstraction of healthcare data will continue to be a necessity.

- If hospitals are to receive the full amount of money available to them from CMS, it is absolutely critical that data abstractors understand the quality reporting programs and how to accurately abstract information from patient records.
The Building Blocks of CMS Quality Data Reporting Programs

1. Specifications Manuals: Uniform guidelines defining the data to be collected and how it is to be reported
   – The Specifications Manual for National Hospital Inpatient Quality Measures
   – The Specifications Manual for Hospital Outpatient Department Quality Measures

2. Electronic abstraction tools for collection of patient-level data:
   – CMS Abstraction and Reporting Tool (CART)
   – Individual vendor abstraction tools
The Specifications Manual for National Hospital Inpatient Quality Measures

- In the late 1990s, CMS and The Joint Commission were independently developing measure sets that hospitals were required to collect data on.
- Since November 2003, the two organizations have worked together to align their common measures so they would be totally identical and reduce the data abstraction burden on hospitals.
The Specifications Manual for National Hospital Inpatient Quality Measures

- Their goal was to minimize data collection efforts for these common measures and to focus efforts on the use of data to improve the healthcare delivery process.

- This alliance resulted in the creation of a common set of measure specifications called the Specifications Manual for National Hospital Inpatient Quality Measures.
The Specifications Manual for National Hospital Inpatient Quality Measures

- Each version of the Specifications Manual covers two discharge quarters (with the exception of Version 3.3b which covers 2\textsuperscript{nd} through 4\textsuperscript{th} quarter 2011 discharges).

- All current and previous versions of the Inpatient Specifications Manuals can be downloaded from QualityNet at https://www.qualitynet.org/dcs/ContentServer?c=Page&pagemane=QnetPublic%2FPage%2FQnetTier2&cid=1141662756099

- Abstractors must be careful to use the version that applies to the discharge quarter they are abstracting, for example:
  - Version 3.3b covers 2\textsuperscript{nd} through 4\textsuperscript{th} quarters of 2011
  - Version 4.0a covers 1\textsuperscript{st} and 2\textsuperscript{nd} quarters of 2012
The Specifications Manual for National Hospital Inpatient Quality Measures

Specifications Manual for National Hospital Inpatient Quality Measures

Over time, it will be necessary to present more than one version of the manual on this Web page so that specific data collection time periods (i.e., based on hospital discharge dates) can be associated with the applicable manual. Find the appropriate data collection period below and select the associated Specifications Manual.

Paper tools for use in abstracting data for each collection (discharge) period are provided with the Specifications Manual, beginning with Version 2.5b.
The Specifications Manual for National Hospital Inpatient Quality Measures

Specifications Manual, Version 4.0a
Discharges 01/01/2012 to 06/30/2012

Download Manual
Specifications Manual for discharges 01/01/2012 - 06/30/2012
- Release Notes, Version 4.0a, PDF - 1 MB
- Release Notes, Version 4.0a, PDF - 1 MB (08/18/11)
- Release Notes, Version 4.0a Supplemental Document
  PDF - 15 KB (08/31/11)

*NOTE: For enhanced accessibility, the formatting of the manual has changed. Some documents contained in this manual are for use by technical staff. Persons using assistive technology may not be able to fully access all documents. If you need assistance in accessing a specific document, contact the QualityNet Help Desk.

Manual By Section
View and/or download individual sections of the Specifications Manual (PDF documents, unless noted), listed below.
Acknowledgement
Table Of Contents (revised 08/18/11)
Introduction
Using the Manual
The Specifications Manual for National Hospital Inpatient Quality Measures
The Specifications Manual for National Hospital Inpatient Quality Measures
The Data Dictionary is a critical resource for abstractors!

- **Introduction to the Data Dictionary**: Critical information necessary for abstractors to ensure that the data are standardized and comparable across hospitals.
Section 1, Data Dictionary

Introduction to the Data Dictionary

- Definition of “episode of care”
- What to do with missing or invalid data
- Medical record documentation
- Late entries
- Suggested data sources
- Inclusions and exclusions
- Physician/Advanced Practice Nurse/Physician Assistant/Pharmacist documentation
- Abstraction of medications
- Abstraction of diagnostic/laboratory tests
- Abstraction of time from grids
Alphabetical Data Dictionary: Provides very detailed abstraction instructions for every data element. Instructions for each specific data element always take precedence over the General Abstraction Guidelines described in the Introduction.
Section 1, Data Dictionary

Alphabetical Data Dictionary

The first few pages list all of the data elements, their page numbers, and the measures for which they are collected.
The Specifications Manual for National Hospital Inpatient Quality Measures

Section 1, Data Dictionary

- Alphabetical Data Dictionary

Use the Bookmarks on the left to quickly go to the section or data element you need to look up.
Alphabetical Data Dictionary: Data Element Name, Collected For, Definition, and Allowable Values
### Alphabetical Data Dictionary: Notes for Abstraction

**Type:** Alphanumeric

**Occurs:** 1

**Allowable Values:**
- Y (Yes) - The patient has documented risk for healthcare associated pneumonia.
- N (No) - The patient has no documented risk for healthcare associated pneumonia or unable to determine from medical record documentation.

**Notes for Abstraction:**
- For purposes of this data element, if there is documentation of a “hospitalization” or “admission”, assume it was an acute care hospitalization unless there is documentation that states otherwise.
- If there is a preprinted form, such as a PN Pathway, with a heading of HCAP, selection of antibiotics alone is not sufficient documentation to select “Yes”. However, if there is a marked checkbox next to the HCAP heading, this will be a “Yes”.
- For the purpose of the Pneumonia Project, chronic dialysis is defined as ESRD (End Stage Renal Disease) with peritoneal dialysis or hemodialysis.
- For the purpose of this data element, an extended care facility is a non-apartment based institutional setting where 24-hour nursing care is provided. This INCLUDES – Nursing Homes, Skilled Nursing Facilities, ECF, ICF, Hospice Facilities, SNF Rehab Units, Sub-acute Care, Transitional Care, Respite Care, Inpatient Rehab Unit or Facility and VA Nursing Facilities. This EXCLUDES –

**Specifications Manual for National Hospital Inpatient Quality Measures**

Discharges 01-01-12 (1Q12) through 06-30-12 (2Q12)
Section 1, Data Dictionary

- Alphabetical Data Dictionary: Suggested Data Sources

Suggested Data Sources:
- Anesthesia record
- Emergency department record
- History and Physical
- ICU flow sheet
- IV flow sheet
- Medication administration record
- Nursing notes
- Operating room record
- PACU/recovery room record
- Perfusion record

Inclusion Guidelines for Abstraction:
None

Exclusion Guidelines for Abstraction:
None
The Specifications Manual for National Hospital Inpatient Quality Measures

Section 1, Data Dictionary

- The “Suggested Data Sources” section describes the data sources most likely to contain the information needed to abstract that data element.
  - These are normally listed in alphabetical order.
  - The abstractor is still responsible for reviewing all additional data sources unless instructed otherwise.

- On occasion, abstractors are limited to “ONLY ACCEPTABLE SOURCES.”
  - When this restriction exists, the abstractor may not utilize documentation from any other data source.
Section 1, Data Dictionary

- Sometimes, the Suggested Data Sources section contains prioritized data sources. One example is the data element, Anesthesia Start Time:
  - “Note: The anesthesia record is the priority data source for this data element. If a valid Anesthesia Start Time is found on the anesthesia record, use that time. If a valid time is not on the anesthesia record, other suggested data sources may be used in no particular order to determine the Anesthesia Start Time.”
  - The “Priority Source” is the Anesthesia Record.
  - “Other Suggested Sources” includes the Intraoperative Record, Circulator Record, etc.
The Specifications Manual for National Hospital Inpatient Quality Measures

Section 1, Data Dictionary

- The Suggested Data Sources section might limit the abstractor to only using documentation entered by a specific person such as a physician, advanced practice nurse, physician assistant, or pharmacist.

- At other times, the Suggested Data Sources section lists sources that the abstractor is not allowed to use.
The Specifications Manual for National Hospital Inpatient Quality Measures

Section 1, Data Dictionary

- **Alphabetical Data Dictionary:** Inclusion Guidelines for Abstraction

Inclusion Guidelines for Abstraction:
- Abscess
- Acute abdomen
- Aspiration pneumonia
- Bloodstream infection
- Bone infection
- Cellulitis
- Crohn's Disease
- Endometritis
- Fecal Contamination
- Free air in abdomen
- Gangrene
- H. pylori
- Necrosis
- Necrotic/ischemic/infarcted bowel
- Osteomyelitis
- Other documented infection
- Perforation of bowel
- Penetrating abdominal trauma
- Pyelonephritis
- Pneumonia or other lung infection
- Sepsis
- Surgical site or wound infection

Specifications Manual for National Hospital Inpatient Quality Measures
Discharges 01-01-12 (1Q12) through 06-30-12 (2Q12)

1-220
The Specifications Manual for National Hospital Inpatient Quality Measures

Section 1, Data Dictionary

- Inclusions are “acceptable terms” that should be abstracted as positive findings (e.g., “Yes”).
- Inclusion lists are limited to those terms that are believed to be most commonly used in medical record documentation.
- The list of inclusions should not be considered all-inclusive, unless otherwise specified in the data element definition.
The Specifications Manual for National Hospital Inpatient Quality Measures

Section 1, Data Dictionary

- **Alphabetical Data Dictionary:** Exclusion Guidelines for Abstraction

Exclusion Guidelines for Abstraction:
- Avascular necrosis
- Bacteria in urine (Bacteriuria)
- "carditis" (such as pericarditis) without mention of an infection
- Colonization or positive screens for MRSA, VRE, or for other bacteria
- Fungal infections
- History of infection, recent infection or recurrent infection not documented as a current or active infection
- Viral infections
Section 1, Data Dictionary

- Exclusion lists are limited to those terms an abstractor may most frequently question whether or not to abstract as a positive finding for a particular element (e.g., “cardiomyopathy” is an unacceptable term for heart failure and should be abstracted as "No").

- The list of exclusions should not be considered all-inclusive, unless otherwise specified in the data element.

- When both an inclusion and exclusion are documented in a medical record, the inclusion takes precedence over the exclusion and would be abstracted as a positive finding (e.g., answer “Yes”), unless otherwise specified in the data element.
The Specifications Manual for National Hospital Inpatient Quality Measures

Section 2, Measurement Information

- Contains separate files for each of the measure sets (AMI, HF, PN, SCIP, etc.) and the Global Initial Patient Population.
Section 2, Measurement Information

- Each measure set file contains:
  - Instructions for identifying the Initial Patient Population for that measure set (all of the cases that are eligible for abstraction for that measure set)
  - Minimum sampling requirements (including monthly and quarterly sampling tables)
  - Measure Information Forms (MIFs), which provide detailed information on each measure within that set
The Specifications Manual for National Hospital Inpatient Quality Measures

Section 2, Measurement Information

- MIFs include:
  - Rationale for each measure
  - Narrative description of the cases that will be included in each measure’s numerator
  - Narrative description of the cases that will be included and excluded for each measure’s denominator
  - Selected references
  - Analytic flowchart for each measure (exact blueprint for calculating measure rates)
  - Miscellaneous measure-specific tables (e.g., the Pneumonia Antibiotic Consensus Recommendations table)
The Specifications Manual for National Hospital Inpatient Quality Measures

Section 2, Measurement Information

- Section 2.9, Global Initial Patient Population
  - Describes the cases that will be in the Initial Patient Population for all global measure sets
    - ALL patients discharged from acute inpatient care
    - Length of stay must be 120 days or less
    - Pediatric, obstetric, and psychiatric patients that are considered to be acute inpatient admissions included
  - Includes the monthly and quarterly sampling instructions for the global Initial Patient Population
  - If a case is identified as being in the Global sample, that case must be abstracted for all global measure sets that are being abstracted and reported
The Specifications Manual for National Hospital Inpatient Quality Measures

Section 10 - CMS Outcome Measures (Claims-Based)

- Section 10.1 - Risk-Standardized 30-Day Mortality Measures
- Section 10.2 - Risk-Standardized 30-Day Readmission Measures
- Section 10.3 - Agency for Healthcare Research and Quality (AHRQ) Measures
- Section 10.4 - Healthcare Associated Infection (HAI) Measures
- Section 10.5 - Hospital-Acquired Conditions (HAC) Measures
- Section 10.6 - Structural Measures

Appendices

- Appendix A - ICD-9-CM Code Tables
  - A.1 - PDF or XLS (revised 08/31/11)
  - A.2 - Reserved for future use
- Appendix B - Reserved for future use
- Appendix C - Medication Tables PDF or XLS
- Appendix D - Glossary of Terms
- Appendix E - Overview of Measure Information Form And Flowchart Formats
- Appendix F - Measure Name Crosswalk (revised 08/19/11)
- Appendix G - Resources
- Appendix H - Miscellaneous Tables (revised 05/18/11)
The Specifications Manual for National Hospital Inpatient Quality Measures

Section 10, CMS Outcome Measures (Claims-Based)

- Contains files on:
  - Mortality measures
  - Readmission measures
  - Agency for Healthcare Research and Quality (AHRQ) measures
  - Healthcare associated infection (HAI) measures
  - Hospital-acquired conditions (HAC) measures
  - Structural Measures

- Additional information on these measures:
The Specifications Manual for National Hospital Inpatient Quality Measures

Appendices

- Appendix A, ICD-9-CM Code Tables
  - Used for identifying cases within the measure set initial patient populations and occasionally for specific data elements

- Appendix C, Medication Tables

- Appendix D, Glossary of Terms

- Appendix E, Overview of Measure Information Form and Flowchart Formats

- Appendix G, Resources

- Appendix H, Miscellaneous Tables
The Specifications Manual for Hospital Outpatient Department Quality Measures

- Is formatted similar to the Inpatient Specifications Manual
- Can be downloaded from QualityNet under the Hospitals-Outpatient tab at

  http://www.qualitynet.org/dcs/ContentServer?c=Page&page=QnetPublic%2FPage%2FQnetTier2&cid=1196289981244
Electronic Data Abstraction Tools

- Data abstraction tools are software programs in which data is entered, rates calculated, and results can be uploaded to electronic data warehouses.

- Administrative data can be entered manually or electronically (from one electronic software program to another).
  - Many hospitals that use vendor tools have their vendor automatically enter this data into the abstraction tools.

- Clinical data must be manually abstracted and entered into the data abstraction tools, even when EHRs are available.
Electronic Data Abstraction Tools

- The greater percentage of acute care hospitals contract with a private vendor to use their data abstraction software.

- The vendors provide varying degrees of support in regards to importing administrative data into the tools, correct utilization of their software, and providing their own individualized reports.

- Hospitals that do not want to incur this added expense normally use CART, a free data abstraction program that can be downloaded from QualityNet.
Electronic Data Abstraction Tools

- CART has two separate modules, one for inpatient quality reporting and one for outpatient quality reporting.
- These programs can be downloaded to individual computers or to a network.
  - Outpatient module information and download links: https://www.qualitynet.org/dcs/ContentServer?c=Page&pageName=QnetPublic%2FPage%2FQnetTier2&cid=1205442057026
  
  - Inpatient module information and download links: https://www.qualitynet.org/dcs/ContentServer?c=Page&pageName=QnetPublic%2FPage%2FQnetTier2&cid=1138900279093
Electronic Data Abstraction Tools

- Although the CART modules are relatively user friendly, hospitals should be sure to download and carefully follow the instructions in the following documents:
  - Installation Instructions
  - CART User’s Guide

- Further assistance on CART can be obtained from the QNet Help Desk or from your QIO contacts.
Electronic Data Abstraction Tools

- Regardless of the abstraction tool you are using (CMS versus an independent vendor), all abstraction tools are created based on the specifications outlined in each version of the Specifications Manual.

- They may differ from each other visually or in the order that they require entry of the data elements, but the manner in which the tool calculates each measure rate must be identical to that described in the Specifications Manual analytic flowcharts.
General Principles for Abstraction

- Always use the version of the Specifications Manual that matches the quarter being abstracted.
- Keep in mind that the Specifications Manual is normally updated every two quarters.
- Changes to the Specifications Manual (and especially to the Data Dictionary) should be reviewed prior to beginning abstraction using that manual.
  - The Release Notes document all changes made to the previous version of the Specifications Manual, including information that has been deleted.
  - Additions to new versions of the Specifications Manual are highlighted in yellow. (Later releases of the same version use different colors to highlight additions.)
General Principles for Abstraction

- When abstracting data, remember that each data element is defined based on how it is used in the analytic flowchart.
  - The majority of data elements are used to determine if a case remains in or is excluded from a specific measure.
  - The remaining data elements determine if a case meets the final intent of specific measures.
- Many data element definitions are very different from their definitions when used in a clinical context.

Abstractors must be absolutely certain they are using the abstraction definition from the Specifications Manual Data Dictionary.
General Principles for Abstraction

- Double-check the information in the Suggested Data Sources section to ensure that the correct data sources are being used and in a manner consistent with the data element instructions.

- Methodically walk through each piece of information in the Data Dictionary Notes for Abstraction to evaluate the medical record documentation as accurately as possible.

- When uncertain, check other abstraction resources such as Quest or the Outpatient Questions/Answers.

- If still in doubt, email your abstraction questions to the QIO Quality Reporting Program contact person.
General Principles for Abstraction

- All hospitals will be included in the data validation process at least once every four years.
- Keep in mind that the current validation process is dependent upon using paper copies of the medical record.

*If abstracting from an EHR, make sure the information seen on the computer monitor matches the same information on a printed copy of the medical record.*
General Principles for Abstraction

REMEMBER...

- Abstraction is meant to be as “black and white” as possible; however...
- There is no way that abstraction guidelines can cover every possible type of documentation.
- Abstractors must make every attempt to follow the abstraction guidelines as closely as possible.
General Principles for Abstraction

If someone else were abstracting the same case, with a paper copy of the medical record used during the original abstraction (EHR or paper medical records), and without knowledge of how your hospital functions, would they come up with the same abstraction responses to each data element?
Need More Help?
Other Abstraction Resources

- **Inpatient** paper abstraction tools

![Image of abstraction tools](image-url)
Other Abstraction Resources

- Outpatient paper abstraction tools
Other Abstraction Resources

- Inpatient and Outpatient Question & Answer Databases
  
  http://www.qualitynet.org
Other Abstraction Resources

- **Inpatient** mock medical record training resources
Other Abstraction Resources

- **Outpatient** mock medical record training resources
Other Abstraction Resources

- CART training (inpatient and outpatient modules)
And Don’t Forget…
You can **always** contact your state Hospital Quality Reporting Program Project Coordinators.

**For Florida and California, please contact:**

**AMI/HF/SCIP/ED**
- Lawanna Hurst
- lhurst@flqio.sdps.org
- (813) 865-3417

**Pneumonia/SCIP/Imm**
- Becky Ure
- rure@flqio.sdps.org
- (813) 865-3415

Hospital personnel from states other than Florida or California should contact their state’s QIO for questions or further assistance. The list of QIO Inpatient Reporting Program Contacts is posted on QualityNet at:

https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier3&cid=1138900297541
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