

## **Using The Specifications Manual for National Hospital Quality Measures**

This portion of the specifications manual provides a brief overview of the information contained within each section of the manual. It is intended for use as a quick reference to assist in the implementation of the hospital national quality measures. The sections of this manual are interrelated and are most useful when considered together.

### **Section 1 - Data Dictionary**

The Data Dictionary describes the patient-level data elements required to capture and calculate individual measurements. It specifies those data elements that must be collected for each patient that falls into any of the selected measure populations and those data elements needed for a specific measure set.

### **Section 2 - Measurement Information**

The measure information section is divided by measure sets (i.e., acute myocardial infarction, heart failure, pneumonia, surgical infection prevention and pregnancy and related conditions). At the beginning of each set is a listing of the measures comprising the set, including, the set measure identification number (alphanumeric number to identify a measure within a set) and the measure short name. For example, in the heart failure measure (HF) set, the measure that addresses HF patients receiving discharge instructions is listed as: HF-1 and measure short name: Discharge instructions. This is followed by a data element list for the measure set, including the general data elements, algorithm output data elements, and the specific measure set data elements. Next is a document that describes the measure population for each measure set. Also included are subsections for each specific measure. These contain a Measure Information Form and the Performance Measure Algorithm.

The algorithms and data elements needed to calculate each of the national quality measures are identified in the MIF. Each algorithm provides the logical steps, data element evaluation, arithmetic calculations, and data manipulation steps that are required to calculate a given measure. For risk adjusted measures, a separate algorithm determines if risk factor data elements are present.

### **Section 3 - Missing and Invalid Data (Joint Commission Performance Measurement Systems Only)**

This section addresses the Joint Commission's approach to missing and invalid data. Information and examples are provided on the three data elements necessary to calculate and summarize missing data rates by health care organization, by month and by national quality measure. In reviewing, note that missing data refers to data elements required for calculation that have no values present and invalid data refers to data element values required for calculation that fall outside of allowable values.

### **Section 4 - Sampling Methods**

Sampling is an available option for all national hospital quality measures if certain requirements are met. This section describes the sampling methods and requirements.

### **Section 5 - Data Quality (Joint Commission Performance Measurement Systems Only)**

Under the basic tenets of the ORYX<sup>®</sup> initiative, listed performance measurement systems assume primary responsibility for monitoring and assuring the accuracy and completeness of the patient-level data they receive from health care organizations, and the aggregated data they transmit to the Joint Commission (refer to the Performance Measurement System Requirements, Attribute 3, Criterion 3C). This section is intended to establish the Joint Commission's *minimum expectations* regarding performance measurement systems' responsibilities for monitoring and ensuring the quality of national quality measure data.

### **Section 6 - Risk Adjustment (Joint Commission Performance Measurement Systems Only)**

This section, along with Appendix B, describes the risk adjustment process used for those national quality measures that are risk adjusted. Among the initial national quality measures, one AMI measure (AMI-9) and all three pregnancy (PR) measures (PR-1, PR-2, PR-3) are risk adjusted. In this section the process used to apply Joint Commission provided statistical models to patient level data is outlined. Performance measurement systems and health care organizations should review this section, along with Appendix B to determine if the risk adjustment data elements and individual risk factors are currently being captured so that proper risk adjustment can be applied. Risk adjustment is a dynamic process and it is anticipated that the Joint Commission will need to modify risk adjustment models on an ongoing basis. In reviewing this section, measurement systems should keep in mind the need to develop processes that enable the efficient application of changes to future risk models.

### **Section 7 - Steps to Calculate Rates and Measurements (Joint Commission Performance Measurement Systems Only)**

In order for aggregated data to be transmitted to the Joint Commission, episode of care (EOC) level national quality measure outcomes must be summarized. This section describes the two possible types of national quality measures, proportion and continuous variable, and provides examples of how EOC level data are summarized for data transmission.

## **Section 8 – National Hospital Quality Measure Verification Process (Joint Commission Performance Measurement Systems Only)**

This section describes the verification process that is used to determine if a performance measurement system has correctly embedded national quality measures and if a system's national quality measure data collection tool is consistent with national quality measures. In order to pass algorithm verification, a system must produce the expected results (i.e., category assignments and measurements) for patient level test cases processed through a measure algorithm, correctly apply risk adjustment information when applicable, and correctly handle missing and/or invalid data. A measurement system will submit or provide the Joint Commission access to their national quality measure data collection tool and a summary of their data flow process. The data collection tool will be evaluated for consistency with national quality measure specifications. The layout and format of the verification results file for patient-level and HCO-level results are provided and discussed.

The format for the test cases is also contained in this section. The test case format will be unique for each measure set. This section includes the data element layout and file format for each measure set. To facilitate successful completion of the verification process all sections of this manual should be read.

## **Section 9 – National Hospital Quality Measure Data Transmission**

The first part of this section (9.1) identifies the specific instructions for submission to the Joint Commission. Transmission of national quality measure data to the Joint Commission will follow the same schedule and basic file formats currently used for transmission of ORYX data. Measurement systems should reference the most current version of the ORYX Technical Implementation Guide for instructions and data element definitions that pertain to the transmission of both ORYX non-core data and national quality measure data. The second part of this section (9.2) identifies the specific requirements for submitting data to the Quality Improvement Organization (QIO) Clinical Warehouse.

## **Appendix A – ICD-9-CM Code Tables**

For many of the measures, eligibility for inclusion or exclusion in the measure's population of interest is defined by the presence of certain ICD-9-CM diagnosis and procedure codes within the patient-level record. Appendix A contains the ICD-9-CM code tables that define these indicator populations for all measures within each measure set. There is description of the code as defined in a coding manual and a shortened description that may be used in a data abstraction tool. The Measure Information Section also refers to the codes or tables provided in this section. ICD-9-CM codes are modified annually by the National Center for Health Statistics (NCHS) and the Centers for Medicare & Medicaid Services (CMS). The code tables in this Appendix are evaluated annually and modified based on these changes. All changes are effective annually beginning with October 1<sup>st</sup> discharges. Updates will be provided as indicated.

## **Appendix B – Risk Factor Definitions (Joint Commission Performance Measurement Systems Only)**

Appendix B, along with the Risk Adjustment Section, provides the details necessary to calculate predicted values for each episode of care in a risk adjusted measure population. It also provides instructions needed to calculate the aggregate risk-adjusted data elements.

## **Appendix C – Medication Tables**

Several of the national quality measures address the use and timing of certain medications. This Appendix contains tables with the specific names that may be associated with medication categories (e.g., trade names). For example, angiotensin converting enzyme inhibitors (ACEI) may also be documented as Captopril, Capozide, Vasotec, etc. These tables are provided to facilitate appropriate data collection of applicable medications. These tables are not meant to be an inclusive list of all available therapeutic agents; rather they represent current information available at the time of publication. Approved medication tables will be updated regularly. Discrepancies must be reported. See Resource Section of this manual for contact information.

## **Appendix D – Glossary of Terms**

## **Appendix E – Overview of Measure Information Form and Flowchart Formats**

Each measure has an associated Measure Information Form and Flowchart (calculation algorithm). This Appendix explains each of the terms used on the Measure Information Form, and provides a brief introduction to flowcharting, including an explanation to flowchart symbols.

## **Appendix F – ICD-9-CM Format**

This appendix describe how ICD-9-CM diagnosis and procedure codes must be formatted.

## **Appendix G – Resources**

Available resources to those using this manual.

## **Appendix H – Miscellaneous Tables**

The tables in this Appendix contain clinical information to supplement the data element dictionary and provide additional details for data abstraction. They are referenced under the data dictionary under the Notes for Abstraction or the Guidelines for Abstraction. For example, the LVF Assessment Inclusion Table is used to supplement abstraction guidelines for the data element LVF Assessment.

## **Appendix I – Patient ID**

This appendix provides formatting information and edits for patient identifiers used in the transmission of data to the QIO Clinical Warehouse.