CMS Manual System

Pub. 100-10 Medicare Quality Improvement Organizations

Department of Health & Human Services (DHHS)
Centers for Medicare & Medicaid Services (CMS)

Transmittal 13 **Date: NOVEMBER 7, 2003**

CHAPTERS	REVISED SECTIONS	NEW SECTIONS	DELETED SECTIONS
14		Table of Contents	
14		14000 - 14610	
14 - Exhibit		Exhibit 14-1	

NEW/REVISED MATERIAL - EFFECTIVE DATE: November 7, 2003

Section 14000 - Background/Authority informs the Quality Improvement Organization (QIO) of its minimum requirements and responsibilities in supporting Hospital Self-Generated Data.

Section 14100 - Transitioning to Hospital-Generated Data describes the type of data that will be used for the reporting initiative.

Section 14110 - Hospital Participation defines a "Reporting Hospital," informs the QIO of the volume of reporting hospitals expected, and describes a measure of participating hospital satisfaction with QIO data abstraction support.

Section 14120 - Provider Registration indicates that the QIO is the point of contact for information to facilitate registering of participating hospitals on QualityNet Exchange.

Section 14130 - Standardized Formats informs the QIO of the standardized formats that describe the data that can be submitted to the clinical data warehouse and reiterates the QIO point of contact function.

Section 14200 - Supporting a Data Abstraction Tool instructs how the QIO must support the CMS Abstraction and Reporting Tool (CART) function and indicates where QIOs may obtain information needed to do so.

Section 14300 - Assessing the Structure of Hospital Information Technology (IT) informs the QIO of its responsibility for conducting surveys of hospitals' IT capability, for maintaining such information in the Standard Data Processing System (SDPS), and for keeping the information up to date.

Section 14400 - Providing Technical Assistance on Data Abstraction Tools describes the nature of technical support the QIO will provide to hospitals relative to our standardized data collection formats and tools.

Section 14500 - Data Validation details the QIO role in ensuring that the data abstracted by hospitals is consistent and reproducible.

Section 14510 - Submitting Data for Validation informs the QIO of our collaboration with the Joint Commission on Accreditation of Health Care Organizations (JCAHO) on data collection and validation for quality measures reporting.

Section 14520 - Provider Certification describes the QIO role in determining whether a given hospital will be deemed "certified" as a facility submitting valid data.

Section 14600 - Assistance on Collecting and Reporting Hospital Data informs the QIO of its responsibility for mediating the results of the comparison between hospital and Clinical Data Abstraction Center (CDAC) abstracted charts. It also instructs the QIO not to issue technical denials for Task 2b, Transitioning to Hospital-Generated Data, validation charts.

Section 14610 - Providing Results of Validation Processes to Hospitals indicates how the QIO may use feedback on abstracted cases and Centers for Medicare & Medicaid Services (CMS) reports for quality improvement opportunities.

Exhibit 14-1 - Hospital-Generated Data Survey is an exhibit of the instrument the QIO must use to assess the IT capability of the hospitals within its jurisdiction.

Workload and Costs: These instructions do not represent an increase in workloads or costs.

NOTE: Normally red, italic font identifies new material. However, because this release is a new manual, normal text font is used for the initial release.

Quality Improvement Organization Manual

Chapter 14 - Hospital-Generated Data Reporting

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(Rev. 13, 11-07-03)

14000 - Background/Authority

(Rev. 13, 11-07-03)

The goal of this activity is to have all hospitals collecting or abstracting quality measures. It is expected that hospitals will use these data for their own internal quality assurance as a means to improve the process of care delivered to Medicare beneficiaries. These data will be collected in support of the Health Care Quality Improvement Program (HCQIP) activities and to support an automated system to calculate national and State estimates of the quality measures for the hospital topics directed by contract. Automated data collection will enhance the Centers for Medicare & Medicaid Services (CMS) capabilities to monitor national and State rates and facilitate Quality Improvement Organization (QIO) evaluation. Such an automated system could assist in public reporting initiatives. QIO authority for data collection and abstraction of medical record information is pursuant to §§1154(a) and 1173 of the Social Security Act (the Act) and Federal Regulations at 42 CFR 476.78, 476.88, 480.111, 480.113, and 480.143.

CMS has established procedures to allow hospitals to submit electronic data to a clinical data warehouse, directly or indirectly through vendors, which is used to estimate health care quality measures for four hospital-based topics (i.e., Acute Myocardial Infarction

(AMI), Heart Failure (HF), Pneumonia (PNE), and Surgical Infection Prevention (SIP)). These data may be used, with permission, for public reporting of hospital performance on these health care quality measures. Any public reporting of hospital information must meet confidentiality regulations at 42 CFR Part 480 and must conform to meet the requirements of the Privacy Act and the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

You are required to conduct the following activities in order to support this initiative: assess the ability of hospitals in your State to collect and process electronic data; provide technical assistance to requesting hospitals as they assume this responsibility for self reporting; use a database management system to confidentially collect hospital reported data; and have the largest number of hospitals possible collecting and reporting health care quality measure data.

NOTE: Several States have initiated some level of public reporting of hospital quality measures. The QIOs in some of these States will engage in special instructions as written and modified by the nature of their special contracts to conform to the various circumstances.

14100 - Transitioning to Hospital-Generated Data

(Rev. 13, 11-07-03)

The data, which is reported in the quarterly sampling to the national clinical data repository via QualityNet Exchange, will be the data used for the reporting initiative. We intend, under controlled circumstances, to allow the hospitals to submit the abstracted data in electronic format rather than paper copies of a complete chart. To minimize the workload and encourage participation, we intend to accept data abstracted or created by parties using methods other than those we are supporting. We are coordinating with the Joint Commission on Accreditation of Health Care Organizations (JCAHO) and other parties to make our measures consistent and acceptable to all users.

14110 - Hospital Participation

(Rev. 13, 11-07-03)

All short-term, acute care hospitals are to be included in the survey to determine data reporting capabilities. Guidance on the identity of these facilities is available through SDPS QIONet. Essentially, all facilities with a zero in the 3rd position (i.e., acute care hospitals) or a 13 in the 3rd and 4th positions (i.e., Critical Access Hospitals (CAHs)) of the CMS Provider Identification Number should be included. This applies to specialty hospitals as well as CAHs.

NOTE: For a given State, CAHs may be included in the number of "reporting hospitals" for the QIO evaluation under Task 2b at the QIO's discretion. However, if you choose to include CAHs in the equation, then ALL of the CAHs in the State must be included.

A. Definition of a Reporting Hospital -- For purposes of your evaluation, a hospital is considered a reporting hospital if:

- The facility submits abstracted data to the QIO Clinical Warehouse via QualityNet Exchange for ALL quality measures for at least one of the four national topics; or

- A non-JCAHO accredited hospital submits to the QIO Clinical Warehouse via QualityNet Exchange the "starter set" of ten measures in accordance with "The National Voluntary Hospital Reporting Initiative."

For non-JCAHO accredited hospitals, a "reporting" hospital must submit a simple random sample of cases. Select all cases with a terminal digit of 0, 5, and 6 in the Health Insurance Claim Number (HICN) (ignoring the Beneficiary Identification Code (BIC)). This sample will correspond to the following scheme:

Total Cases in topic:	Sample (based on Medicare discharges):
<7	Select all
7-34	Select 7
35-350	Select 20%
>350	Select 70

A hospital accredited by the JCAHO that collects all JCAHO measures on at least one of the AMI, HF, or PNE (referred to as CAP by JCAHO) topics also qualifies as a "reporting" hospital. For example, if the hospital collects the JCAHO measures for pneumonia, the hospital would meet the CMS definition of a "reporting" hospital for purposes of the 7th Statement of Work (SOW) QIO evaluation even though the CMS influenza immunization and antibiotic selection measures are not currently required for JCAHO.

For the SIP topic, it is expected that the hospital will collect data for all procedures meeting the population eligibility for that topic.

For a given State, CAHs may be included in the number of "reporting" hospitals for the QIO evaluation under Task 2b at the QIO's discretion. However, if a QIO chooses to include CAHs in the equation, then ALL of the CAHs in the State must be included.

B. Volume -- You are expected to have 50 percent or more of hospitals in your State reporting abstracted data to the data warehouse for the fourth quarter of hospital discharges used in evaluation.

C. Participating Hospital Satisfaction with Data Abstraction Support -- CMS will conduct a survey of appropriate personnel in a sample of reporting hospitals in your State in which you have installed the CMS abstraction tool or have provided support for the ongoing collection and submission of hospital abstracted data to the data warehouse. CMS expects that at least 80 percent of the responding hospitals will report they have reached a targeted level of satisfaction according to a measure to be determined.

14120 - Provider Registration

(Rev. 13, 11-07-03)

QualityNet Exchange provides secure, interactive applications for the exchange and input of data between healthcare providers in your State and you. You, the QIO, serve as a point of contact for information to facilitate the registration of healthcare providers in your State. Registration at the QualityNet Exchange site (www.qnetexchange.org) is necessary for access to non-public areas of QualityNet Exchange.

14130 - Standardized Formats

(Rev. 13, 11-07-03)

Through SDPS QualityNet Exchange, CMS has provided standardized formats that describe the data that can be submitted to the data warehouse. The SDPS QualityNet Exchange prescribes both the formats and the processes to be used to collect the data. You serve as the point of contact for the hospitals submitting data in this fashion. As provided via SDPS, you are to supply the hospitals with all specifications necessary, and be available to answer questions from the hospital staff. Additional information in this regard is listed on the QIO InfoNet (i.e., SDPS Memos grouped under CA for CMS Abstraction and Reporting Tool (CART) or HD for Hospital Data Collection). The Quality Improvement Organization Support Center (QIOSC) for this task is available to support the QIOs.

14200 - Supporting a Data Abstraction Tool

(Rev. 13, 11-07-03)

CMS, through the QIOSC for Hospital Data Reporting, has developed the CMS Abstraction and Reporting Tool (CART) for use with CMS' hospital-based topics as well as other topics as may be provided by hospitals. Training on the use of the tool is available on QualityNet Exchange. Also, the QIOSC is available to provide high-level support to the QIO on the CART tools. You, in turn, are to make CART tools available to any requesting hospital within your jurisdiction.

As requested, the QIO shall:

- Demonstrate, onsite, the proper use of the tool(s) and the available features;

- Install or supervise the successful installation of the system on at least one computer used by the hospital;

- Provide at least one copy of appropriate documentation on the use of the standard tools;

- Provide ongoing technical support by being available to answer technical questions during normal business hours, notify hospitals of technical changes, and install upgrades to the software as available; and

- Ensure the completion of independent annual customer satisfaction surveys of the appropriate personnel in all facilities where the QIO has installed and supports the ongoing use of the CART tools.

You are expected to serve as the point of contact for each hospital. If a question arises that the staff at the QIO cannot answer, contact the SDPS Help Line to resolve the issue and relay the solutions to the hospital.

14300 - Assessing the Structure of Hospital Information Technology (IT)

(Rev. 13, 11-07-03)

The first step the QIO needs to complete in order to begin the data reporting initiative is to determine the technological abilities of the hospitals. In order to gather this information, you have been provided with a "Hospital-Generated Data" survey instrument (See Exhibit 14-1) that lists specific pieces of information we need to know about each hospital. The information contained in this survey should be reported to and maintained in SDPS. The QIO is responsible for collecting this data initially, entering the information into SDPS via QualityNet Exchange, and conducting periodic reviews to ensure the information is current.

The information can be collected in a variety of ways, including mail surveys, telephone surveys, or by visiting each facility and completing the information. It is expected that the QIO will achieve a 100 percent response to this survey. When the survey becomes Web-based, it will be possible for the hospital to input its own data. You are responsible for providing the access necessary for the hospital to complete the information in this fashion. If a hospital desires to complete the survey in this manner, it is your responsibility to verify that the information has been entered timely and remains current.

A. Structure of Survey -- You will be provided a Web-based survey instrument that lists specific pieces of information on Information Technology (IT) infrastructure that you are to collect from hospitals in your State. All short-term, acute care hospitals are to be included in the survey, including CAHs and specialty hospitals. Guidance on the identity

of these facilities is available in SDPS. You will submit this collected information in SDPS and conduct periodic reviews to ensure the entered information is current.

As the IT status of a hospital can change over time, information requested on the survey can change. You must verify that the surveyed IT information is current, and update any information necessary on a quarterly basis. This can be done by contacting each hospital and inquiring about whether any changes have occurred, and, if so, what those changes are. Any such changes should be submitted to SDPS.

B. How Data is Collected, Entered, and Maintained -- All data will be entered electronically and maintained in SDPS.

C. Updating of Data -- You will amend data found to need updating during your reviews. It is possible that data elements on the survey will change and these changes may occur more frequently than annually. Any change in the survey data elements must be collected and updated in the SDPS system for each hospital within three months of any data element change.

14400 - Providing Technical Assistance on Data Abstraction Tools

(Rev. 13, 11-07-03)

A number of hospitals are already engaged in data collection for some, but not all, of the clinical measures. This is either through their in-house processes or through ORYX vendors for the JCAHO. Other hospitals have no data abstraction process at all. The type of technical support each facility requires depends on these facts. This information will be collected and maintained by the QIOs using the Hospital-Generated Data Survey (Exhibit 14-1). Essentially, the QIO must be in a position to provide two types of technical support to hospitals: standardized formats for those data already abstracted; and abstraction tools for those data to be collected. The principal instrument for data exchange is CART. Information about CART can be found on QualityNet Exchange.

A. Nature of Support -- You are required to contact every hospital in your State and offer your assistance in promoting and supporting each organization's ability to report abstracted health care quality measure data. It is expected that hospitals can vary greatly on the level of quality measure data abstraction they have attained and on the level of their ability to collect data. The type and level of technical support a facility requires will vary and can be judged from the IT survey outlined above. You are also required to offer onsite assistance on the CMS data abstraction tool when requested by a hospital. You must be able to provide support on standardized data collection formats for data already abstracted and for the abstraction tools for data to be collected. You will also provide your contact information (i.e., telephone numbers and email addresses) to each requesting hospital in your State.

B. Nature of Abstraction Tools -- Through SDPS, CMS will develop standardized formats that describe the data that can be submitted to the data warehouse. The SDPS

will prescribe the formats and processes to be used by hospitals to collect and submit the data. You will provide documentation and onsite expertise on the CMS abstraction formats and tools to requesting hospitals.

C. Provision and Use of Abstraction Tools -- CMS, through the QIOSC for Hospital Data Reporting, will develop and supply to you the data abstraction tools for each of the four hospital-based topics. The QIOSC will provide support to you on these tools. You will make these tools available to any requesting hospital, and you are expected to serve as the point of contact for each hospital. If you receive a question that you cannot answer, then you will contact the QIOSC to answer the question, and you will then relay the answer to the hospital. Further, as requested, you shall:

- Demonstrate the proper use of the tool and the available features;
- Install, or supervise the installation of, the system successfully on at least one computer used by a hospital;
- Provide at least one copy of appropriate documentation on the use of the standard tools; and
- Provide ongoing technical support by being available to answer technical questions during normal business hours and notify and install upgrades to the software as available.

D. Types of Support -- You will provide technical support on systems interfacing for Windows-based systems (Windows 95, 98, Me, 2000, and XP). Provision of support for non-Windows based systems is at your discretion to facilitate reporting of quality measure data.

14500 - Data Validation

(Rev. 13, 11-07-03)

The purpose of this activity is to verify that the data abstracted by the hospitals is consistent and reproducible. CMS will identify the universe of abstracted data submitted by the hospital; draw a small, simple random sample; obtain access to the identified charts; and have the appropriate Clinical Data Abstraction Center (CDAC) re-abstract the clinical measures. The CDAC re-abstractions will be compared to the original hospital abstractions and the results shared with the QIO and the affected hospital. The hospitals will be deemed certified as submitting valid data based upon the percent agreement between the hospital and CDAC abstractions. The QIO will be responsible for mediating the results of this validation effort with the hospitals and for providing assistance to improve hospital abstractions.

DATA VALIDATION ON HOSPITAL-REPORTED MEASURES

A. Nature of Validation -- The purpose of this activity is to verify that data abstracted by hospitals are consistent and reproducible. Data submitted by certified providers will be used to establish the State and National estimates of the quality measures used to evaluate the performance of the QIOs.

B. Determination of Data Validation Frequency -- For each quarter that a hospital submits abstracted data according to the sampling requirements outlined in §14110.A, a simple random sample will be drawn and submitted to the CDACs.

C. Sample Sizes -- The number of charts selected in the sample will be 5 per quarter, for a total of no more than 20 charts per year for eligible hospitals.

D. Non-Receipt of Charts -- Charts selected for validation that are not received by the CDAC will be counted as a mismatch for all of the elements in the chart. There is no need to issue technical denials.

14510 - Submitting Data for Validation

(Rev. 13, 11-07-03)

In an attempt to lessen reporting requirements for hospitals, we are following the JCAHO deadlines for reporting data plus a 10-day extension, and further accepting their measures in lieu of CMS measures. Hospitals will submit records to SDPS QualityNet Exchange until a quarter is selected for sampling by the CDAC for validation. Once sufficient data have been listed for sampling, it may not be modified or substituted by the hospital. In general, data submitted by a hospital will be the only data used to construct quality of care measures. Re-abstractions by the CDACs will not substitute for data originally submitted by the hospital.

14520 - Provider Certification

(Rev. 13, 11-07-03)

In addition to the data validation process provided above, CMS will identify all of the abstracted charts, or records, submitted by a hospital each quarter. From this list, regardless of topic, five records will be selected using simple random sampling. The CDAC will request the written charts represented by these records and re-abstract the appropriate elements for the topic. The CDAC will adjudicate any differences, produce a CDAC record, and provide a reason for any of the remaining differences observed.

Using the Program Resource System (PRS) found in SDPS, the QIO will receive reports that will present the results of the comparison of the original hospital abstraction to the CDAC abstraction. The reports will provide the total percent of elements in agreement across all records and the results of the comparison for each individual record. On the basis of the results of the individual records, a hospital will be deemed “certified” as a

facility submitting valid data if the minimum CMS rate (currently 80.0 percent) or higher is achieved. For those hospitals deemed to be submitting valid data, CMS will continue to use the hospital's abstracted data to estimate the CMS quality measures. If a hospital is not certified as submitting valid data, then the CDACs will make a direct request for any charts selected in the surveillance sample used to monitor the CMS quality measures. At this time, it is the intent of CMS to continue to sample and monitor the validity of hospital-abstracted data every quarter.

14600 - Assistance on Collecting and Reporting Hospital Data

(Rev. 13, 11-07-03)

The QIO is responsible for mediating the results of the comparison between the hospital and CDAC abstracted charts. In those instances where less than 80 percent of the elements agree, you will need to review the charts submitted to the CDAC and assist in resolving the differences. The CDACs are processing charts for the whole country, and it is incumbent on the QIO to minimize contacts with the CDAC abstraction staff. However, when the results of the QIO analysis of the comparison clearly indicate a mistake on the part of the CDAC, then it is the QIOs responsibility to work with the CDAC to correct the errors and help in improving the abstraction process.

Once the CDAC has abstracted all records for a hospital, the results will be forwarded via SDPS QualityNet and posted on PRS. If the reliability is less than 80 percent (i.e., the agreement rate between the hospital-abstracted record and the CDAC-abstracted record is less than 80 percent of the compared elements), then copies of the records used by the CDAC will be forwarded to the QIO. If the hospital wishes to appeal the results, you will review the results and work with the hospital to determine the nature of the disagreement. Resolution may involve further education and training of the hospital staff to improve abstraction, better documentation or supplying complete documentation, and discussions with the CDAC.

Procedures and timelines for this adjudication process are available through the SDPS system. For charts not received by the CDAC, the results of the comparison will be a mismatch for every element in the re-abstracted record. You will not issue a technical denial for Task 2b validation charts.

14610 - Providing Results of Validation Processes to Hospitals

(Rev. 13, 11-07-03)

The data collected for Task 2b represent a source of information that you can use to further your efforts under HCQIP. Although some hospitals may only be providing abstracted data as required by the CDACs, others may be abstracting all of the cases related to HCQIP. With these data, you are in a position to provide valuable feedback to a hospital. You can report on the individual hospital's quality measures as well as

benchmark data (i.e., quality measures for all hospitals in the State). This benchmark data should be reported in aggregate so as not to identify any individual facilities. Even those hospitals not submitting abstracted data may benefit from looking at benchmarks and be encouraged to begin data abstraction. We expect the QIOs to tap this resource as much as possible by disseminating reports that the individual hospitals can use to assist in their quality improvement efforts.

CMS will provide you with a system of reports that will give detailed results of the validation process. These reports will show the hospital abstractions compared with the CDAC abstractions and reason codes (with interpretation) for all discrepancies. These reports will serve as the basis for discussion between the QIO and the hospital to help to improve abstraction coding, where necessary. You are expected to serve as the point of contact for the hospital and work with the CDAC to resolve questions raised by the hospital that you cannot answer. If you believe the CDAC coding is incorrect based upon information supplied by the hospital, then you are expected to obtain clarification from the CDAC staff. Keep in mind that the CDAC is responding only to information supplied in the forwarded charts. Additional information, either outside the confines of the chart or based on subsequent submission of information for the chart to the CDAC, does not constitute grounds to change the CDAC results.

Exhibit 14-1 - Hospital-Generated Data Survey

(Rev. 13, 11-07-03)

Facility Name and Location: _____
Provider ID: _____
Contact Name and Telephone: _____
Date: _____

1) For which of the listed topics does your hospital currently (within the last 3 months) perform the following activities related to data collection of quality of care measures:

	Acute Myocardial Infarction (AMI)	**Heart Failure (HF)**	**Pneumonia (PNE)**	**Surgical Infection Prevention (SIP)**	**Stroke (STR)**	**Pregnancy and Related Conditions (PR)**	**Other Topic(s)**	***None***
A) Hospital staff abstracts data from medical records:								
i) Concurrent data collection while patient is in the hospital	☐	☐	☐	☐	☐	☐	☐	☐
ii) Retrospective data collection with computerized tool	☐	☐	☐	☐	☐	☐	☐	☐
iii) Retrospective data collection with paper tool	☐	☐	☐	☐	☐	☐	☐	☐
B) Hospital contracts with third party (e.g., ORYX vendor or JCAHO measurement system) to abstract data from medical records	☐	☐	☐	☐	☐	☐	☐	☐

C) Hospital reports data on quality of care measures:								
i) to JCAHO	☐	☐	☐	☐	☐	☐	☐	☐
ii) to state Quality Improvement Organization (QIO, formerly Peer Review Organization or PRO)	☐	☐	☐	☐	☐	☐	☐	☐
iii) to other regulatory agency (e.g., state health department)	☐	☐	☐	☐	☐	☐	☐	☐
iv) to non-regulatory agency (e.g., VHA)	☐	☐	☐	☐	☐	☐	☐	☐
D) Hospital collects data for ALL of the CMS measures for the topic.	☐	☐	☐	☐	☐			☐

NOTE: In the above table, please select at least one option in each row. If specified topics do no apply, select None.

2) Is your facility JCAHO accredited? ☐ Yes ☐ No

A) If yes, what is the name and address of the ORYX measurement system you use?

Name: _____
Address: _____
City, State, ZIP: _____

Name: _____
Address: _____
City, State, ZIP:

Name: _____
Address: _____

City, State, ZIP:

Name: _____
Address: _____
City, State, ZIP: _____

3) Does your facility have a computer with all of the following minimum specifications?

A) ☐ Yes ☐ No

- 500MHZ Pentium 3 processor
- 128 MB RAM

B) ☐ Yes ☐ No

- Internet connection
- Internet Explorer Version 5.00.33 or above
- An Internet Service Provider

C) ☐ Yes ☐ No

- Windows 98 or higher