## DOCUMENT REVISION HISTORY

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<tr>
<td>06/08/04</td>
<td>Section 6.2</td>
<td>Added additional method of access the CMS FAQs in step 1.</td>
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<tr>
<td>06/17/04</td>
<td>Sections 3.2 and 3.3</td>
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1.0 Introduction

CMS is in the process of developing and tracking inpatient clinical quality measures. This manual is designed to assist you in your identification of appropriate patients and admissions for these measures. Many of you may already have implemented a process to identify and evaluate these measures. This manual is NOT designed to replace your current processes, but to augment them. ITSC plans to release an electronic query for these measures within the CIRS 05 (clinical indicator reporting system- formerly GPRA+) software application. This current manual is designed to ‘bridge’ the gap until that application is released.

You will still need to do chart reviews for certain of the measures, since RPMS does not currently record ‘time’ in a retrievable manner. Also, ejection fraction was recently added as a measurement field. ITSC recommends that this value be recorded into RPMS if it is identified through chart review. Please work with your data entry person to enter this information into your measurements RPMS file.
1.1 Important Memo from CMS

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
Room 306-D
200 Independence Avenue, SW
Washington, DC 20201

Public Affairs Office

MEDICARE NEWS

FOR IMMEDIATE RELEASE
January 28, 2004

CMS ANNOUNCES GUIDELINES FOR REPORTING HOSPITAL QUALITY DATA

The Centers for Medicare & Medicaid Services (CMS) today announced the guidelines hospitals should use in submitting their quality performance data to comply with Section 301 of the Medicare Prescription Drug, Improvement and Modernization Act (MMA). Hospitals that do not submit performance data for 10 quality measures will receive 0.4 percent smaller Medicare payments in fiscal year 2005 than hospitals that do report quality data.

“Public reporting of quality measures is a mainstay of the administration’s Quality Reporting Initiative,” CMS Acting Administrator Dennis Smith said. “The hospital industry shares this commitment and got the ball rolling with their National Voluntary Hospital Reporting Initiative. Now, Congress has endorsed the public-private commitment to quality reporting by requiring Medicare to make higher payments to those hospitals that submit this data.”

CMS has notified hospitals that in order to qualify for the full monetary update, they must sign up with the Quality Improvement Organizations’ data warehouse by June 1, 2004 and transmit the required data there by July 1, 2004, which will reflect patient discharges during the most recent quarter available. Hospitals whose data submission is started but not completed by July 1 will be allowed a 30-day grace period to complete that data submission.

“We are working closely with the American Hospital Association, the Federation of American Hospitals and others to ensure that hospitals are fully aware of these requirements,” Smith said. “Today’s notice is especially important for those hospitals that have not yet begun to work with us in submitting and reporting their data, so that they ensure that they receive their full monetary update for 2005. For those already reporting as part of the National Voluntary effort, they just need to continue.”

CMS notes that hospitals are to submit data for all patients, not just Medicare patients. CMS will check the data to ensure it is in the proper format.

A set of 10 quality measures has gone through years of extensive testing for validity and reliability. They have been chosen because they are related to three serious medical conditions that are common among people with Medicare and that result in hospitalization, which are heart attack (acute myocardial infarction), heart failure, and pneumonia. They are endorsed by the National Quality Forum, a voluntary standard-setting, consensus-building organization representing providers, consumers, purchasers and researchers.

- more -
“Valid, reliable, comparable and salient quality measures provide a potent stimulus for clinicians and providers to improve the quality of care they provide,” Smith said. “Of equal importance is public reporting to ensure that consumers have the information they need so they can make more informed decisions based on quality of care.”

Quality Improvement Organizations (QIOs), independent organizations working under contract to CMS, will provide technical assistance to hospitals in their data abstraction and submission and with quality improvement activities. Hospitals are urged to contact their local QIO today for this technical assistance.

“CMS’s QIOs stand ready to assist hospitals to successfully report quality measures and improve the quality of care they deliver,” said Smith. “The QIO program has been critical to the success of our Nursing Home and Home Health Quality Initiatives, and as our grass roots mechanism for improving the quality of patient care, they will also play an important role in the success of the Hospital Quality Initiative.”

Since October 2003, CMS has reported data on a set of 10 hospital quality measures submitted voluntarily by hospitals on www.cms.hhs.gov. The same measures will be used in implementing MMA.

The 10 measures in three disease areas are:

- **Heart attack (Acute Myocardial Infarction)**
  - Was aspirin given to the patient when upon arrival at the hospital?
  - Was aspirin prescribed when the patient was discharged?
  - Was a beta-blocker given to the patient upon arrival at the hospital?
  - Was a beta-blocker prescribed when the patient was discharged?
  - Was an ACE Inhibitor given for the patient with heart failure?

- **Heart failure**
  - Did the patient get an assessment of his or her heart function?
  - Was an ACE Inhibitor given to the patient?

- **Pneumonia**
  - Was an antibiotic given to the patient in a timely way?
  - Had a patient received a Pneumococcal vaccination?
  - Was the patient’s oxygen level assessed?

“Aligning payment with superior quality is a major focus of this agency, and today’s guidance is one important piece of that,” said Smith. “All of our efforts are taking us to one end: high quality care for people with Medicare that is accelerated by public reporting of a robust set of quality measures and supported by technical assistance from our Quality Improvement Organizations.”

Fact Sheets with further detail for hospitals will be available at www.cms.hhs.gov/quality/hospital.

###
1.2 List of 10 Measures

The 10 measures in three disease areas for which you are searching are:

- **Heart attack (Acute Myocardial Infarction)**
  - Was aspirin given to the patient when upon arrival at the hospital?
  - Was aspirin prescribed when the patient was discharged?
  - Was a beta-blocker given to the patient upon arrival at the hospital?
  - Was a beta-blocker prescribed when the patient was discharged?
  - Was an ACE Inhibitor given for the patient with heart failure?

- **Heart failure**
  - Did the patient get an assessment of his or her heart function?
  - Was an ACE Inhibitor given to the patient?

- **Pneumonia**
  - Was an antibiotic given to the patient in a timely way?
  - Had a patient received a Pneumococcal vaccination?
  - Was the patient’s oxygen level assessed?
2.0 QMan Orientation

2.1 What is QMan?

QMan is the RPMS query utility. QMan builds queries through a series of elements. If you would like more information about QMan, please refer to the QMan User Manual, which provides detailed and easy-to-follow instructions for constructing queries. The Manual can be downloaded from the RPMS Web site: www.ihs.gov/CIO/RPMS/appsactiondoc.cfm.

QMan users do not need to be PCC experts; i.e., there is no need to understand the MUMPS computer language or the FileMan database management system. This manual will provide you with detailed steps on how to run a query.

2.2 Access and Verify Codes

To log on to QMan, you must first gain access to the PCC menu system. Your Site Manager will assign an access code and a verify code.

Note: You will need to work with your Site Manager or other information systems staff to use QMan to set up your taxonomies, because only the taxonomy “creator” (i.e., the person that installed the GPRA+ FY04 software) can modify the taxonomy in QMan.

2.3 Access to QMan: Allotment of Access Keys

The QMan option must appear on one of your menus. This will only happen if your Site Manager assigns you a QMan Users key. This key will give you access to demographic data but not to clinical information. To have access to clinical information, you will also need to hold a second key, the QMan Clinical Users key.

Once you have arranged with your Site Manager to receive access keys, you are ready to select QMan from the appropriate menu and get started. The appearance of these menus varies greatly from site to site, your site’s menus may differ.

Note: This is your first look at a QMan menu. Unlike FileMan menus, all choices are numbered. Make your selection by typing in the number or the first word. Partial entries are accepted. Context sensitive help is available by entering “9”, “?”, or “??”. Enter “0” to return to the previous menu.
2.4 How do I access QMan

Figure 2-1: How do I access QMan
2.5 The Startup Screen

When you select the search option from QMan’s main menu, the following message displays (Figure 2-2).

```
***** WELCOME TO Q-MAN: THE PCC QUERY UTILITY *****
Query utility: IHS Q-MAN Ver. 2
Current user: DEMO
Chart numbers will be displayed for: DEMO FACILITY
Access to demographic data: PERMITTED
Access to clinical data: PERMITTED
Programmer privileges: NO
```

Figure 2-2: Understanding the startup screen

The first line indicates the version of QMan you are using. The information in this manual is for Version 2 or higher. The second line confirms that you are the current user. When a patient’s name appears on a report, QMan will also print a chart number. The third line tells you which facility’s chart number will be shown on your reports. The last three lines indicate which areas of information are accessible to you as a user. Normally, clinical data is only available to health care professionals. If you attempt to access clinical data without proper clearance, QMan will “beep” at you and prevent you from including any clinical attribute in the query.

2.6 Basic QMan Terms

When you use QMan, your primary goal is to generate a query. Each query consists of four basic elements: subject, attribute, condition, and value. You do not need to fully understand each of terms. They are included here to give you a basic understanding of the functions you will be performing in section 3.0.

Subject What you are searching for. In QMan Version 2 this can be patients, a specific subset of patients (e.g., infants, males, etc.), a specific patient (e.g., Lisa Martin), provider(s), or visit(s).

Attribute A distinguishing characteristic of the subject. The relationship between the subject and attribute can be “one to one”, known as demographic or patient identifying attributes, (e.g., age, sex, tribe) or “one to many”, known as clinical attributes, (e.g., diagnoses, measurements, prescriptions).

Condition A logical operator used to delimit a particular value. Usually this is a word or symbol which is used to establish a basis of comparison (e.g., greater than, equals, after, =, >, etc.).

Value A quantity or state used with the condition to indicate the status of a particular attribute. The value can be words, a date, or a number and it may or may not include units of measurement (e.g., 250 lbs., 4+, 1/5/46, Apache).
2.7 Help with QMan

To use QMan, first draw out the patients you are trying to find by using a Venn diagram to make certain you know exactly what you want to find.

Figure 2-3: A Venn diagram of the AMI taxonomy
3.0 Adding the Pneumonia Taxonomy

This section explains how to add the pneumonia taxonomy using QMan. After accessing QMan, you enter the subject of the search. The default is Living Patients, but you will be using Patients (includes living and dead).

After entering the subject, QMan will repeatedly ask you to enter attributes. These attributes are “and’ed” together. QMan’s makes it easy to respond to questions. When in doubt, enter anything you think might be close to what you want and chances are QMan will understand what you mean. If not, the computer will simply “beep” at you and give you an opportunity to try another entry. Do not be afraid of entering the incorrect data, there is no way that you can harm the computer or do any damage while using QMan. If you need help, enter one or more question marks.

3.1 Background

Viral pneumonia principal diagnosis codes were originally included in the project because most of our early measures (e.g., blood culture, antibiotic timing and selection) focused on what happens to patients during the first hours at the hospital. The etiologic agent is generally not known at that time, just that the patient has 'pneumonia.' The principal diagnosis code is selected at the end of hospitalization, when the etiology of the pneumonia is most likely to have been established.

Since initial pneumonia treatment is generally empiric, an inpatient who ultimately is determined to have had viral pneumonia usually should have received initial empiric antibiotic treatment that is the same as that given to a patient whose pneumonia is ultimately found to have a bacterial or unknown etiology.

If a firm diagnosis of pure viral pneumonia is made during the hospitalization, antibacterial therapy should be discontinued and antiviral agents instituted if indicated (e.g., amantadine, etc). However, the influenza urinary antigen assay is the only rapid viral test that is generally recommended for adults (Clin Infect Dis 2003;37:1405-33). It can detect influenza, but cannot rule out the secondary bacterial infection that often leads to hospitalization. RSV urinary antigen assays are available, but are not recommended for general use. There are no clinical or radiologic characteristics that reliably distinguish viral pneumonia from bacterial pneumonia.

Our smoking cessation and vaccination performance measures address care that is provided later in the hospitalization. With the exception of influenza vaccine for patients with influenza pneumonia, they are important for all patients, regardless of pneumonia etiology. ¹

¹ This content was provided from CMS through www.qnetexchange.org. Reference question # 16379.
3.2 Detailed Instructions

To add Pneumonia as a Taxonomy, follow these steps:

1. Choose the QMan menu option from the main menu. Every site is different, so your QMan option may be in the IHS Core menu or PCC menu. Ask your Site Manager if you have any questions.

2. QMan displays the Start Up Screen (see section 2.4 for an explanation of this screen).

3. Press the Return key at the “Enter Return to continue or ‘^’ to exit:” prompt.

4. The QMan Options screen displays (see Figure 3-2).

5. Type 1 at the “Your Choice:” prompt.
6. The Search Criteria screen displays (see Figure 3-3).

7. Type PATIENT at the “What is the Subject of Your Search?” prompt. The default is Living Patients.

8. Type AGE at the “Attribute of Patient:” prompt.

9. Type the Greater Than symbol (>) at the “Condition:” prompt.

10. Type 18 at the “Age:” prompt.

11. Type ADMISSION TO HOSPITAL at the next “Attribute of Patient:” prompt.

12. Type BETWEEN DATES at the “First Condition of ‘Hospital Admissions’:” prompt.

13. Type a starting date at the “Exact Starting Date:” prompt. This date is the beginning date for the time period that you want to look at charts.

14. Type an ending date at the “Exact Ending Date:” prompt. This date is the ending date for the time period that you want to look at charts.

15. Type DX at the “Next Condition of ‘Hospital Admission’:” prompt.

16. Type YES at the “Diagnosis Values Obtained on the Same Visit?” prompt.

17. Type 481 at the “Enter DX:” prompt.

18. Type YES at the “...OK?” prompt. The system displays the code range selected.

19. Type 482.0-482.9 at the “Enter Another DX:” prompt.

20. Type YES at the “...OK?” prompts to confirm your entry. The system displays the code range selected.
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***** SEARCH CRITERIA *****

What is the subject of your search? LIVING PATIENTS // PATIENT

Attribute of PATIENT: AGE
Condition: >
Age: 18

Computing Search Efficiency
Rating..........................................

Subject of search: PATIENTS
AGE GREATER THAN 18 [SER = .06]

Attribute of PATIENT: ADMISSION TO HOSPITAL

SUBQUERY: Analysis of multiple HOSPITAL ADMISSIONS

First condition of "HOSPITAL ADMISSION": BETWEEN DATES (inclusive)
Exact starting date: 010103 (JAN 01, 2003)
Exact ending date: 123103 (DEC 31, 2003)

Next condition of "HOSPITAL ADMISSION": DX

Do you want to screen each HOSPITAL ADMISSION according to the DIAGNOSIS values obtained on the SAME visit? Yes//

Enter DX: 481 481. PNEUMOCOCCAL PNEUMONIA [STREP] COMPLICATION/COMORBIDITY
...OK? Yes// YES (Yes)

Code Range(s) Selected So Far =>
1) 481.

Enter ANOTHER DX: 482.0-482.9
482.0 K. PNEUMONIAE PNEUMONIA
...OK? Yes// (Yes)
482.9 BACTERIAL PNEUMONIA NOS
...OK? Yes// (Yes)

Codes in this range =>
482.0 K. PNEUMONIAE PNEUMONIA
482.1 PSEUDOMONAL PNEUMONIA
482.2 H.INFLUENZAE PNEUMONIA
482.3 STREPTOCOCCAL PNEUMONIA
482.30 BACT PNEUM-STREPTOCOCCUS, NOS
482.30 BACT PNEUM-STREPTOCOCCUS, NOS
482.31 BACT PNEUM-STREPT, GRP A
482.32 BACT PNEUM-STREPT, GRP B
482.39 BACT PNEUM-STREPTOCOCCUS, NEC
482.4 PNEUMONIA DT STAPHYLOCOCCUS
482.40 PNEUM STAPHYLOCOCCAL UNSP
482.41 PNEUM STAPHYLOCOCCUS AUREUS
482.49 OTH STAPHYLOCOCCAL PNEUM
482.8 BACTERIAL PNEUMONIA NEC

Adding the Pneumonia Taxonomy

Fiscal Year 2005
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482.80  LEGIONNAIRE'S DISEASE
482.80  LEGIONNAIRE'S DISEASE
482.81  BACT PNEUM-ANAEROBES
482.82  BACT PNEUM-E. COLI
482.83  BACT PNEUM-OTHER GRAM-NEGATIVE
482.84  LEGIONNAIRES' DISEASE
482.89  BACT PNEUMONIA, NEC
482.9   BACTERIAL PNEUMONIA NOS

Code Range(s) Selected So Far =>

1)  481.
2)  482.0 - 482.9

Figure 3-3: Adding pneumonia as a taxonomy (step 6-20)

21. Type 483.0-483.8 at the “Enter Another DX:” prompt.

22. Type Yes at the “OK?” prompts to confirm your entry. The system displays the code range selected.

23. Type 485 at the next “Enter another DX:” prompt.

24. Type Yes at the “OK?” prompt to confirm your entry. The system displays the code range selected.

25. Type 486 at the “Enter Another DX:” prompt.

26. Type Yes at the “OK?” prompt to confirm your entry. The system displays the code range selected.

27. Type 487 at the “Enter Another DX:” prompt.

28. Type Yes at the “OK?” prompt to confirm your entry. The system displays the code range selected.
Enter ANOTHER DX: 483.0-483.8
483.0  MYCOPLASMA PNEUMONIAE  COMPLICATION/COMORBIDITY
...OK? Yes//  (Yes)
483.8  PNEUMONIA-ORGANISM NEC  COMPLICATION/COMORBIDITY
...OK? Yes//  (Yes)

Codes in this range =>

483.0  MYCOPLASMA PNEUMONIAE
483.1  PNEUMONIA DUE TO CHLAMYDIA
483.8  PNEUMONIA-ORGANISM NEC

Code Range(s) Selected So Far =>

1) 481.
2) 482.0 - 482.9
3) 483.0 - 483.8

Enter ANOTHER DX: 485
485.  BRONCOPNEUMONIA ORG NOS
...OK? Yes//  (Yes)

Code Range(s) Selected So Far =>

1) 481.
2) 482.0 - 482.9
3) 483.0 - 483.8
4) 485.

Enter ANOTHER DX: 486
486.  PNEUMONIA, ORGANISM NOS
...OK? Yes//  (Yes)

Code Range(s) Selected So Far =>

1) 481.
2) 482.0 - 482.9
3) 483.0 - 483.8
4) 485.
5) 486.

Enter ANOTHER DX: 487
1 487  487.0  INFLUENZA WITH PNEUMONIA
2 487.1  FLU W RESP MANIFEST NEC
3 487.8  FLU W MANIFESTATION NEC

Code Range(s) Selected So Far =>

1) 481.
2) 482.0 - 482.9
3) 483.0 - 483.8
4) 485.
5) 486.
6) 487.0

Figure 3-4: Adding pneumonia as a taxonomy (step 21-28)

29. Type 038.0-38.9 at the “Enter Another DX:” prompt.
30. Type **Yes** at the “OK?” prompts to confirm your entry. The system displays the code range selected.

![Figure 3-5: Adding pneumonia as a taxonomy (step 29-30)]

<table>
<thead>
<tr>
<th>Code Range(s) Selected So Far =&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) 038.0 - 038.9</td>
</tr>
<tr>
<td>2) 481.</td>
</tr>
<tr>
<td>3) 482.0 - 482.9</td>
</tr>
<tr>
<td>4) 483.0 - 483.8</td>
</tr>
<tr>
<td>5) 485.</td>
</tr>
<tr>
<td>6) 486.</td>
</tr>
<tr>
<td>7) 487.0</td>
</tr>
</tbody>
</table>

31. Type **518.81** at the “Enter Another DX:” prompt.

32. Type **Yes** at the “OK?” prompt to confirm your entry. The system displays the code range selected.
33. Type 518.83 at the “Enter Another DX.” prompt.

34. Type Yes at the “OK?” prompt to confirm your entry. The system displays the code range selected.

35. Type 518.84 at the “Enter Another DX.” prompt.

36. Type Yes at the “OK?” prompt to confirm your entry. The system displays the code range selected.
Enter ANOTHER DX: **518.81** 518.81 ACUTE RESPIRATORY FAILURE
  ...OK? **Yes**// (Yes)

Code Range(s) Selected So Far =>

1)  038.0 - 038.9
2)  481.
3)  482.0 - 482.9
4)  483.0 - 483.8
5)  485.
6)  486.
7)  487.0
8)  518.81

Enter ANOTHER DX: **518.83** 518.83 CHRONIC RESPIRATORY FAILURE COMPLICATION/COMORBIDITY
  ...OK? **Yes**// (Yes)

Code Range(s) Selected So Far =>

1)  038.0 - 038.9
2)  481.
3)  482.0 - 482.9
4)  483.0 - 483.8
5)  485.
6)  486.
7)  487.0
8)  518.81
9)  518.83

Enter ANOTHER DX: **518.84** 518.84 ACUTE AND CHRONIC RESPIRATORY COMPLICATION/COMORBIDITY
  ...OK? **Yes**// (Yes)

Code Range(s) Selected So Far =>

1)  038.0 - 038.9
2)  481.
3)  482.0 - 482.9
4)  483.0 - 483.8
5)  485.
6)  486.
7)  487.0
8)  518.81
9)  518.83 - 518.84

**Figure 3-6: Adding pneumonia as a taxonomy (step 31-36)**

37. Press the Return key at the next blank “Enter Another DX:” prompt.

38. Type **Yes** at the “Want to Save this DX Group for Future Use?” prompt.

39. Type an appropriate name at the “Group Name:” prompt.
Note: A good way to categorize your taxonomies so they are easily remembered is begin each name with your initials followed by a description. Example: JD CMS Pneumonia Dx for John Doe. If you follow this standard, you can always type your initials and all the taxonomies that you have created will show as choices.

40. Type YES at the “Are you adding ‘SAH PNEUMONIA DX’ as a new Taxonomy (the ##TH)?” prompt.

41. Type PNEUMONIA CODES FOR CMS at the “Taxonomy Brief Description:” prompt.

42. Type Y or N at the “Edit?” prompt. Type Y if you wish to edit the extended description for the taxonomy.

43. Press the Return key at the “First Condition of ‘Diagnosis’:” prompt.

44. Press the Return key at the “Next Condition of ‘Hospital Admission’:” prompt.
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The system displays the QMan Output menu. You will then see the following “Output Options” menu displayed. Enter ANOTHER DX:

Want to save this DX group for future use? No// YES
Group name: JD CMS PNEUMONIA DX
Are you adding 'SAH PNEUMONIA DX' as a new TAXONOMY (the 411TH)? No// YES

TAXONOMY BRIEF DESCRIPTION: PNEUMONIA CODES FOR CMS
EXTENDED DESCRIPTION:
No existing text
Edit? NO//

SUBQUERY: Analysis of multiple DIAGNOSES
First condition of "DIAGNOSIS": [RET]
Subject of subquery: HOSPITAL ADMISSION
BETWEEN JAN 1,2003 and DEC 31,2003@23:59:59
DIAGNOSES ENTERED ON THE SAME VISIT AS EA. HOSPITAL ADMISSION
Next condition of "HOSPITAL ADMISSION": [RET]
Computing Search Efficiency Rating....
Subject of search: PATIENTS
Subject of subquery: HOSPITAL ADMISSION
BETWEEN JAN 1,2003 and DEC 31,2003@23:59:59
DIAGNOSES ENTERED ON THE SAME VISIT AS EA. HOSPITAL ADMISSION

***** Q-MAN OUTPUT OPTIONS *****
Select one of the following:
1 DISPLAY results on the screen
2 PRINT results on paper
3 COUNT 'hits'
4 STORE results of a search in a FM search template
5 SAVE search logic for future use
6 R-MAN special report generator
9 HELP
0 EXIT

Your choice: DISPLAY//

Figure 3-7: Adding pneumonia as a taxonomy (step37-44)

45. Type 1 at the “Your Choice:” prompt. The system displays 3 available options.

46. Type 2 at the next “Your Choice:” prompt.
47. As you can see QMan will “think” about your query briefly, usually only a few seconds, and then display the results on your terminal screen. You may interrupt the display at any time. If you wish to stop a search as it is running (when there is no prompt on the screen), press <CONTROL – C>. If you wish to stop a report at the screen prompt “<>” enter the “hat” ( ^ ) and then press the Return key.

48. Figure 3-9 is a typical QMan report (To save space, this demo report has been abbreviated.). The patient is listed in the first column. If there is a “*” next to the patient’s name, it means that the patient has at least one alias and may be known to you by another name. The local chart number is always shown in the second column (even though you did not request it). The chart number is printed to avoid mistaken identities. If the patient does not have a local chart number, the entry space will be blank. Other data requested in the report will appear to the right of the chart number.

49. At the end of the search, a total will be displayed followed by the “Press RETURN to continue or ‘^’ to exit” prompt. Pressing the Return key here will place you back at the top of the QMan search menu.
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...SORRY, LET ME THINK ABOUT THAT A MOMENT...

Please note: Patients whose names are marked with an "*" may have aliases.

<table>
<thead>
<tr>
<th>PATIENTS</th>
<th>WHITER</th>
<th>DISCHARGE SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>patient 1</td>
<td>1 MAR 11,2003=&gt;MAR 15,2003@12:00 (4 days) GENE</td>
<td></td>
</tr>
<tr>
<td>patient 2</td>
<td>2 MAR 23,2003=&gt;MAR 26,2003@18:55 (3 days) GENE</td>
<td></td>
</tr>
<tr>
<td>patient 3</td>
<td>3 NOV 13,2003=&gt;NOV 26,2003@13:15 (13 days) GEN</td>
<td></td>
</tr>
<tr>
<td>patient 4</td>
<td>4 AUG 7,2003=&gt;AUG 16,2003@10:40 (9 days) GENER</td>
<td></td>
</tr>
<tr>
<td>patient 5</td>
<td>5 MAR 1,2003=&gt;MAR 6,2003@14:00 (5 days) GENERA</td>
<td></td>
</tr>
<tr>
<td>patient 6</td>
<td>6 FEB 25,2003=&gt;FEB 26,2003@16:30 (1 days) GENE</td>
<td></td>
</tr>
<tr>
<td>patient 7</td>
<td>7 JUN 1,2003=&gt;JUN 5,2003@14:40 (4 days) GENERA</td>
<td></td>
</tr>
<tr>
<td>patient 8</td>
<td>8 MAR 1,2003=&gt;MAR 8,2003@11:35 (7 days) GENERA</td>
<td></td>
</tr>
<tr>
<td>patient 9</td>
<td>9 DEC 26,2003=&gt;JAN 3,2004@11:00 (8 days) GENER</td>
<td></td>
</tr>
<tr>
<td>patient 10</td>
<td>10 MAY 12,2003=&gt;MAY 21,2003@13:45 (9 days) GENE</td>
<td></td>
</tr>
<tr>
<td>patient 11</td>
<td>11 APR 14,2003=&gt;APR 18,2003@11:35 (4 days) GENE</td>
<td></td>
</tr>
<tr>
<td>patient 12</td>
<td>12 OCT 6,2003=&gt;OCT 10,2003@14:20 (4 days) GENER</td>
<td></td>
</tr>
<tr>
<td>patient 13</td>
<td>13 DEC 24,2003=&gt;DEC 24,2003@15:15 (0 days) GENE</td>
<td></td>
</tr>
<tr>
<td>patient 14</td>
<td>14 NOV 9,2003=&gt;NOV 11,2003@19:30 (2 days) GENER</td>
<td></td>
</tr>
<tr>
<td>patient 15</td>
<td>15 OCT 22,2003=&gt;OCT 24,2003@05:20 (2 days) GENERA</td>
<td></td>
</tr>
<tr>
<td>patient 16</td>
<td>16 OCT 15,2003=&gt;OCT 18,2003@18:50 (3 days) GENE</td>
<td></td>
</tr>
<tr>
<td>patient 17</td>
<td>16 MAY 5,2003=&gt;MAY 9,2003@15:45 (4 days) GENERA</td>
<td></td>
</tr>
<tr>
<td>patient 18</td>
<td>16 MAR 7,2003=&gt;MAR 10,2003@13:15 (3 days) GENER</td>
<td></td>
</tr>
<tr>
<td>patient 19</td>
<td>17 JAN 17,2003=&gt;JAN 24,2003@02:35 (7 days) GENE</td>
<td></td>
</tr>
<tr>
<td>patient 20</td>
<td>18 SEP 14,2003=&gt;SEP 17,2003@11:30 (3 days) GENE</td>
<td></td>
</tr>
<tr>
<td>patient 21</td>
<td>19 SEP 15,2003=&gt;SEP 17,2003@14:40 (2 days) GENER</td>
<td></td>
</tr>
<tr>
<td>patient 22</td>
<td>20 DEC 6,2003=&gt;DEC 12,2003@11:15 (6 days) GENER</td>
<td></td>
</tr>
<tr>
<td>patient 23</td>
<td>21 OCT 1,2003=&gt;OCT 2,2003@11:35 (1 days) GENERA</td>
<td></td>
</tr>
<tr>
<td>patient 24</td>
<td>21 AUG 18,2003=&gt;AUG 25,2003@17:40 (7 days) GENE</td>
<td></td>
</tr>
<tr>
<td>patient 25</td>
<td>22 AUG 19,2003=&gt;AUG 22,2003@14:05 (3 days) GENE</td>
<td></td>
</tr>
<tr>
<td>patient 26</td>
<td>23 JUL 2,2003=&gt;JUL 4,2003@12:30 (2 days) GENERA</td>
<td></td>
</tr>
<tr>
<td>patient 27</td>
<td>24 OCT 2,2003=&gt;OCT 4,2003@12:20 (2 days) GENERA</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>A NOV 27,2003=&gt;NOV 28,2003@16:30 (1 days) GENE</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>B JUL 21,2003=&gt;JUL 23,2003@14:20 (2 days) GENE</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>C DEC 21,2003=&gt;DEC 22,2003@15:50 (1 days) GENE</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>D MAR 14,2003=&gt;MAR 16,2003@11:25 (2 days) GENE</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>E NOV 26,2003=&gt;NOV 28,2003@16:00 (2 days) GENE</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>F DEC 2,2003=&gt;DEC 7,2003@13:00 (5 days) GENERA</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>G MAR 13,2003=&gt;MAR 15,2003@09:30 (2 days) GENE</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>H FEB 5,2003=&gt;FEB 7,2003@14:40 (2 days) GENERA</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>I SEP 1,2003=&gt;SEP 2,2003@18:45 (1 days) GENERA</td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>J JUL 29,2003=&gt;AUG 1,2003@13:40 (3 days) GENER</td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>K NOV 10,2003=&gt;NOV 17,2003@11:45 (7 days) GENE</td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>L APR 23,2003=&gt;APR 24,2003@17:22 (1 days) GENE</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>M SEP 15,2003=&gt;SEP 20,2003@13:00 (5 days) GENE</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>N JAN 12,2003=&gt;JAN 14,2003@11:00 (2 days) GENE</td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>O DEC 22,2003=&gt;DEC 31,2003@15:30 (9 days) GENE</td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>P APR 23,2003=&gt;APR 27,2003@10:05 (4 days) GENE</td>
<td></td>
</tr>
<tr>
<td>Q</td>
<td>Q MAR 22,2003=&gt;MAR 25,2003@12:15 (3 days) GENE</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>R AUG 27,2003=&gt;SEP 2,2003@14:10 (6 days) GENER</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>S MAR 8,2003=&gt;MAR 10,2003@10:35 (2 days) GENER</td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>T SEP 3,2003=&gt;SEP 4,2003@10:05 (1 days) GENERA</td>
<td></td>
</tr>
</tbody>
</table>
### 3.3 Quick Checklist

The following table is designed to provide the basic information needed to set up a taxonomy through QMan. This is for the experienced user of QMan or to help you keep track of your entries.

<table>
<thead>
<tr>
<th>Step</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Select Search PCC Database</td>
</tr>
<tr>
<td>2.</td>
<td>Search Subject: PATIENT</td>
</tr>
<tr>
<td>3.</td>
<td>Attribute: Age</td>
</tr>
<tr>
<td>4.</td>
<td>Condition: &gt;</td>
</tr>
<tr>
<td>5.</td>
<td>Age: 18</td>
</tr>
<tr>
<td>6.</td>
<td>Attribute: ADMISSION TO HOSPITAL</td>
</tr>
<tr>
<td>7.</td>
<td>Condition: BETWEEN DATES</td>
</tr>
<tr>
<td>8.</td>
<td>Exact Starting Date: This date is the beginning date for the time period that you want to look at charts.</td>
</tr>
<tr>
<td>9.</td>
<td>Exact Ending Date: This date is the ending date for the time period that you want to look at charts.</td>
</tr>
<tr>
<td>10.</td>
<td>Next Condition: DX</td>
</tr>
<tr>
<td>11.</td>
<td>Diagnosis Values Obtained on the Same Visit?: YES</td>
</tr>
<tr>
<td>12.</td>
<td>Enter DX Values: 481 482.0-482.9 483.0-483.8 485</td>
</tr>
<tr>
<td>Step</td>
<td>Instruction</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>13.</td>
<td>Save this DX Group for Future Use</td>
</tr>
<tr>
<td>14.</td>
<td>Group Name: Enter an appropriate group name, e.g., JD CMS Pneumonia Dx</td>
</tr>
<tr>
<td>15.</td>
<td>Taxonomy Brief Description: Enter a brief description, e.g., PNEUMONIA CODES FOR CMS</td>
</tr>
</tbody>
</table>
3.4 Flowchart

Figure 3-10: Pneumonia taxonomy flowchart

1. LVF Assessment (via Ejection Fraction measurement) done ever or planned after discharge.
2. ACE inhibitor given at discharge.
4.0 Adding the AMI Taxonomy

This section explains how to add the Acute Myocardial Infarction (AMI) taxonomy using QMan. After accessing QMan, you enter the subject of the search. The default is Living Patients, but you will be using Patients (includes living and dead).

After entering the subject, QMan will repeatedly ask you to enter attributes. These attributes are “and’ed” together. QMan’s makes it easy to respond to questions. When in doubt, enter anything you think might be close to what you want and chances are QMan will understand what you mean. If not, the computer will simply “beep” at you and give you an opportunity to try another entry. Do not be afraid of entering the incorrect data, there is no way that you can harm the computer or do any damage while using QMan. If you need help, enter one or more question marks.

See section 2.7 for a Venn diagram of the AMI taxonomy.

4.1 Detailed Instructions

**To add AMI as a Taxonomy, follow these steps:**

1. Choose the QMan menu option from the main menu. Every site is different, so your QMan option may be in the IHS Core menu or PCC menu. Ask your Site Manager if you have any questions.

2. QMan displays the Start Up Screen (see section 2.4 for an explanation of this screen).

3. The QMan Options screen displays (see Figure 4-2).

Figure 4-1: Adding AMI as a Taxonomy (step 1 & 2)
4. Type 1 at the “Your Choice:” prompt.

```
***** Q-MAN OPTIONS *****
Select one of the following:
1  SEARCH PCC Database (dialogue interface)
2  FAST Facts (natural language interface)
3  RUN Search Logic
4  VIEW/DELETE Taxonomies and Search Templates
5  FILEMAN Print
9  HELP
0  EXIT

Your choice: SEARCH/  1  SEARCH PCC Database (dialogue interface)
```

Figure 4-2: Adding AMI as a Taxonomy (step 3 & 4)

5. The Search Criteria screen displays (see Figure 4-3).

6. Type PATIENT at the “What is the Subject of Your Search?” prompt. The default is Living Patients.

7. Type ADMISSION TO HOSPITAL at the “Attribute of Patient:” prompt.

8. Type BETWEEN DATES at the “First Condition of ‘Hospital Admissions’:” prompt.

9. Type a starting date at the “Exact Starting Date:” prompt. This date is the beginning date for the time period that you want to look at charts.

10. Type an ending date at the “Exact Ending Date:” prompt. This date is the ending date for the time period that you want to look at charts.

11. Type DX at the “Next Condition of ‘Hospital Admission’:” prompt.

12. Type YES at the “Do you want to screen each Hospital Admission according to the Diagnosis values obtained on the Same visit?” prompt.

13. Type 410.0 – 410.92 at the “Enter DX:” prompt. A list of codes beginning with 410.0 displays.

14. Type 1 at the “Choose 1-4:” prompt.

15. Type YES at the “...OK?” prompt. The system displays the code range selected.

16. Press the Return key at the “Enter Another DX:” prompt.

17. Type Y or N at the “Want to save this DX group for future use?” prompt. If you type Y, type an appropriate name at the “Group Name:” prompt, type YES at the “Are you adding ‘Group name’ as a new Taxonomy (the
Collecting Data for the CMS Initiatives

###TH)?” prompt, type a brief description at the “Taxonomy Brief Description:” prompt, and then type Y or N at the “Edit?” prompt.

**Note:** A good way to categorize your taxonomies so they are easily remembered is begin each name with your initials followed by a description. Example: JD CMS Pneumonia Dx for John Doe. If you follow this standard, you can always type your initials and all the taxonomies that you have created will show as choices.
What is the subject of your search?  LIVING PATIENTS // PATIENT PATIENT
Attribute of PATIENT: ADMISSION TO HOSPITAL

SUBQUERY: Analysis of multiple HOSPITAL ADMISSIONS

First condition of "HOSPITAL ADMISSION": BETWEEN EN DATES (inclusive)
Exact starting date: 010103 (JAN 01, 2003)
Exact ending date: 123103 (DEC 31, 2003)

Next condition of "HOSPITAL ADMISSION": DX

Do you want to screen each HOSPITAL ADMISSION according to the
DIAGNOSIS values obtained on the SAME visit? Yes// (Yes)

Enter DX: 410.0-410.92

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>410.0   AMI ANTEROLATERAL WALL</td>
</tr>
<tr>
<td>2</td>
<td>410.00  AMI ANTEROLAT WALL, EPIS UNSPEC</td>
</tr>
<tr>
<td>3</td>
<td>410.01  AMI ANTEROLAT WALL, INIT CARE</td>
</tr>
<tr>
<td>4</td>
<td>410.02  AMI ANTEROLAT WALL, SUBSEQ CARE</td>
</tr>
</tbody>
</table>

CHOOSE 1-4: 1 410.0 AMI ANTEROLATERAL WALL

AMN NOS, SUBSEQ CARE

...OK? Yes// Yes

Codes in this range =>

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>410.0</td>
<td>AMI ANTEROLATERAL WALL</td>
</tr>
<tr>
<td>410.00</td>
<td>AMI ANTEROLAT WALL, EPIS UNSPEC</td>
</tr>
<tr>
<td>410.00</td>
<td>AMI ANTEROLAT WALL, EPIS UNSPEC</td>
</tr>
<tr>
<td>410.01</td>
<td>AMI ANTEROLAT WALL, INIT CARE</td>
</tr>
<tr>
<td>410.02</td>
<td>AMI ANTEROLAT WALL, SUBSEQ CARE</td>
</tr>
<tr>
<td>410.1</td>
<td>AMI ANTERIOR WALL NEC</td>
</tr>
<tr>
<td>410.10</td>
<td>AMI ANTERIOR WALL, EPIS UNSPEC</td>
</tr>
<tr>
<td>410.10</td>
<td>AMI ANTERIOR WALL, EPIS UNSPEC</td>
</tr>
<tr>
<td>410.11</td>
<td>AMI ANTERIOR WALL, INIT CARE</td>
</tr>
<tr>
<td>410.12</td>
<td>AMI ANTERIOR WALL, SUBSEQ CARE</td>
</tr>
<tr>
<td>410.2</td>
<td>AMI INFERO LATERAL WALL</td>
</tr>
<tr>
<td>410.20</td>
<td>AMI INFERO LATERAL WALL, EPIS UNSPEC</td>
</tr>
<tr>
<td>410.20</td>
<td>AMI INFERO LATERAL WALL, EPIS UNSPEC</td>
</tr>
<tr>
<td>410.21</td>
<td>AMI INFERO LAT, INIT CARE</td>
</tr>
<tr>
<td>410.22</td>
<td>AMI INFERO LATERAL WALL, SUBSEQ CARE</td>
</tr>
<tr>
<td>410.3</td>
<td>AMI INFERO POSTERIOR WALL</td>
</tr>
<tr>
<td>410.30</td>
<td>AMI INFERO POSTER WALL, EPIS UNSPEC</td>
</tr>
<tr>
<td>410.30</td>
<td>AMI INFERO POSTER WALL, EPIS UNSPEC</td>
</tr>
<tr>
<td>410.31</td>
<td>AMI INFERO POSTER WALL, INIT CARE</td>
</tr>
<tr>
<td>410.32</td>
<td>AMI INFERO POSTER WALL, SUBSEQ CARE</td>
</tr>
<tr>
<td>410.4</td>
<td>AMI INFERO WALL NEC</td>
</tr>
<tr>
<td>410.40</td>
<td>AMI INFERO WALL, EPIS UNSPEC</td>
</tr>
<tr>
<td>410.40</td>
<td>AMI INFERO WALL, EPIS UNSPEC</td>
</tr>
<tr>
<td>410.41</td>
<td>AMI INFERO WALL, INIT CARE</td>
</tr>
<tr>
<td>410.42</td>
<td>AMI INFERO WALL, SUBSEQ CARE</td>
</tr>
<tr>
<td>410.5</td>
<td>AMI LATERAL WALL NEC</td>
</tr>
<tr>
<td>410.50</td>
<td>AMI LATERAL WALL, EPIS UNSPEC</td>
</tr>
<tr>
<td>410.50</td>
<td>AMI LATERAL WALL, EPIS UNSPEC</td>
</tr>
<tr>
<td>410.51</td>
<td>AMI LATERAL WALL, INIT CARE</td>
</tr>
</tbody>
</table>
18. Press the Return key at the “First Condition of ‘Diagnosis’:” prompt.

19. Press the Return key at the “Next Condition of ‘Hospital Admission’:” prompt.

20. Type 1 at the “Your Choice:” prompt. The system displays 3 available options.

21. Type 2 at the next “Your Choice:” prompt.
SUBQUERY: Analysis of multiple DIAGNOSES

First condition of "DIAGNOSIS": [RET]

Subject of subquery: HOSPITAL ADMISSION
BETWEEN JAN 1,2003 and DEC 31,2003@23:59:59
DIAGNOSES ENTERED ON THE SAME VISIT AS EA. HOSPITAL ADMISSION

Next condition of "HOSPITAL ADMISSION": [RET]

Computing Search Efficiency Rating....

Subject of search: PATIENTS
Subject of subquery: HOSPITAL ADMISSION
BETWEEN JAN 1,2003 and DEC 31,2003@23:59:59
DIAGNOSES ENTERED ON THE SAME VISIT AS EA. HOSPITAL ADMISSION

***** Q-MAN OUTPUT OPTIONS *****

Select one of the following:
1 DISPLAY results on the screen
2 PRINT results on paper
3 COUNT 'hits'
4 STORE results of a search in a FM search template
5 SAVE search logic for future use
6 R-MAN special report generator
9 HELP
0 EXIT

Your choice: DISPLAY// 1 DISPLAY results on the screen

You have 3 options for listing ADMISSIONS =>

1) List every ADMITTING DATES meeting search criteria.
2) List every ADMITTING DATES and DISCHARGE INFO meeting search criteria.
3) List all PATIENTS with ADMITTING DATES you specified, but DO NOT list individual ADMITTING DATES or DISCHARGE INFO (FASTEST OPTION!!)
   (Displays UNDUPLICATED list of PATIENTS)

Your choice (1-3): 1// 2

Figure 4-4 Adding AMI as a Taxonomy (steps 18-21)

22. As you can see QMan will “think” about your query briefly, usually only a few seconds, and then display the results on your terminal screen. You may interrupt the display at any time. If you wish to stop a search as it is running (when there is no prompt on the screen), press <Control – C>. If you wish to stop a report at the screen prompt “<>” enter the “hat” (^) and then press the Return key.

23. Figure 4-5 is a typical QMan report (To save space, this demo report has been abbreviated.). The patient is listed in the first column. If there is a “*” next to the patient’s name, it means that the patient has at least one alias and may be
Collecting Data for the CMS Initiatives

known to you by another name. The local chart number is always shown in the second column (even though you did not request it). The chart number is printed to avoid mistaken identities. If the patient does not have a local chart number, the entry space will be blank. Other data requested in the report will appear to the right of the chart number.

24. At the end of the search, a total will be displayed followed by the “Press Return to continue or ^C to exit:” prompt. Pressing the Return key here will place you back at the top of the QMan search menu.

...EXCUSE ME, THIS MAY TAKE A FEW MOMENTS...
Please note: Patients whose names are marked with an "*" may have aliases.

<table>
<thead>
<tr>
<th>PATIENTS</th>
<th>WHITER</th>
<th>DISCHARGE SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAA, aaaaa</td>
<td>1111</td>
<td>OCT 4, 2003=&gt;OCT 11, 2003@12:50 (7 days) GENER</td>
</tr>
<tr>
<td>BBBB, bbbbb</td>
<td>2222</td>
<td>AUG 14, 2003=&gt;AUG 15, 2003@10:20 (1 days) GENE</td>
</tr>
<tr>
<td>CCCC, ccccc</td>
<td>3333</td>
<td>JAN 20, 2003=&gt;JAN 23, 2003@00:01 (3 days) GENE</td>
</tr>
<tr>
<td>Total: 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 4-5: Adding AMI as a Taxonomy (sample report)*

4.2 Quick Checklist

The following table is designed to provide the basic information needed to set up a taxonomy through QMan. This is for the experienced user of QMan or to help you keep track of your entries.

<table>
<thead>
<tr>
<th>Step</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Select Search PCC Database</td>
</tr>
<tr>
<td>2.</td>
<td>Search Subject: PATIENT</td>
</tr>
<tr>
<td>3.</td>
<td>Attribute: ADMISSION TO HOSPITAL</td>
</tr>
<tr>
<td>4.</td>
<td>Condition: BETWEEN DATES</td>
</tr>
<tr>
<td>5.</td>
<td>Exact Starting Date: This date is the beginning date for the time period that you want to look at charts.</td>
</tr>
<tr>
<td>6.</td>
<td>Exact Ending Date: This date is the ending date for the time period that you want to look at charts.</td>
</tr>
<tr>
<td>7.</td>
<td>Next Condition: DX</td>
</tr>
<tr>
<td>Step</td>
<td>Instruction</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>8.</td>
<td>Diagnosis Values Obtained on the Same Visit?: YES</td>
</tr>
</tbody>
</table>
| 9.   | Enter DX Values:  
|      | 410.0 – 410.92 |
| 10.  | Save this DX Group for Future Use |
| 11.  | Group Name: |
| 12.  | Taxonomy Brief Description: |
4.3 Flowchart

Heart Attack (Acute Myocardial Infarction-AMI) for Hospitals only

- Select the SEARCH PCC Database option
- Type PATIENTS
- Attribute (what about these patients?)
- Type ADMISSION
- Time Frame
  - Type Between
  - Type the first date
  - Type the last date
- Type DX
- Type 410.0 - 410.92

Notes:
1. Use all capital letters
2. Not LIVING PATIENTS, since many have died since the admission

This will give you all the patients with a Diagnosis of AMI over the indicated time period.

If this finds a large number of patients or, if desired, you can use QMan to exclude the patients with ASA allergy, with a host of diagnoses, or if taking Coumadin/Warfarin

- Is there a large list of patients or a small list of patients?
  - Large List
  - Small List

If this is a small number, you could stop here and do a chart review for #1 and #2 below.

- Exclude?
  - Coumadin/Warfarin
  - ASA Allergy

- The Coumadin/Warfarin is tricky since we want to know if taking time frame of the AMI Dx, not just if ever on this medication.
- So Select Warfarin or Coumadin (QMan can take either)
- Select all the different doses
- Have to associate with AMI/Dx time frame (Current Rx)

- Type ALLERGY
- Type DX (have to type each dx or dx range)
- Type 280.0, 280.9, 287.3 - 287.5, 456.0, 456.9, 459.0, 531, 00-534.91, 571.0-573.9, 905.1, 995.0-995.3
- Type NULL (meaning you want to NOT select this Dx)

---

**Figure 4-6: Flow chart of the AMI taxonomy**

- #1 Aspirin (ASA) at Arrival
  - Numerator: Number of patients with ASA (24 hours < Admit time < 24 hours)
  - **most sites are not documenting and entering times electronically. Chart audit of AMI patients above would need to be done**

- #2 Aspirin at Discharge
  - Numerator: Same as #1, until last parameter

- #3 Ace Inhibitor at discharge
  - Numerator: Same as #2, except have different Exclude parameters

- #4 Beta Blocker at Arrival
  - (same as ASA #1)
  - Numerator: Number of patients with Beta Blocker within 24 hours of Admit.
  - **most sites are not documenting and entering times electronically. Chart audit of AMI patients above would need to be done.**
5.0  **Adding the Heart Failure Taxonomy**

This section explains how to add the Heart Failure taxonomy using QMan. After accessing QMan, you need to enter the subject of the search. The default is Living Patients, but you will be using Patients (includes living and dead).

After entering the subject, QMan will repeatedly ask you to enter attributes. These attributes are “and’ed” together. QMan’s makes it easy to respond to questions. When in doubt, enter anything you think might be close to what you want and chances are QMan will understand what you mean. If not, the computer will simply “beep” at you and give you an opportunity to try another entry. Do not be afraid of entering the incorrect data, there is no way that you can harm the computer or do any damage while using QMan. If you need help, enter one or more question marks.

5.1 **Background**

Credit is given for an LVF assessment if there is documentation that an echo, MUGA, or cath was done (stipulations on these are included in the LVF Assessment data element definition) OR if there is a documentation of LVF (the presumption is made that a test was done if LVF is documented; again, criteria as to what is "LVF" documentation is outlined in the data element definition). Visit the CMS measures site at: [http://www.qnetexchange.org/public/cart/resources.jsp?txt=](http://www.qnetexchange.org/public/cart/resources.jsp?txt=)

Documentation for the plan for LVF assessment after discharge must be fairly explicit - e.g., "Echo next month", "Will measure EF in 3 weeks". A plan for an LVF assessment should not be assumed based on cardiologist consult alone. Planned LVF assessment cases go into the numerator. Note that cases with "documentation of planned assessment" to be quite rare.

5.2 **Detailed Instructions**

**To add Heart Failure as a Taxonomy, follow these steps:**

1. Choose the QMan menu option from the main menu. Every site is different, so your QMan option may be in the IHS Core menu or PCC menu. Ask your Site Manager if you have any questions.

2. QMan displays the Start Up Screen (see section 2.4 for an explanation of this screen).

---

ii This background information was provided by Sheila H. Roman, MD, MPH, Senior Medical Officer CMS
3. The QMan Options screen displays (see Figure 5-2).

4. Type 1 at the “Your Choice:” prompt.

5. The Search Criteria screen displays (see Figure 5-3).

6. Type PATIENT at the “What is the Subject of Your Search?” prompt. The default is Living Patients.

7. Type ADMISSION TO HOSPITAL at the “Attribute of Patient:” prompt.

8. Type BETWEEN DATES at the “First Condition of ‘Hospital Admissions’:” prompt.

9. Type a starting date at the “Exact Starting Date:” prompt. This date is the beginning date for the time period that you want to look at charts.
10. Type an ending date at the “Exact Ending Date:” prompt. This date is the ending date for the time period that you want to look at charts.

11. Type DX at the “Next Condition of ‘Hospital Admission’:” prompt.

12. Type YES at the “Do you want to screen each Hospital Admission according to the Diagnosis values obtained on the Same visit?” prompt.

13. Type the following diagnoses at the “Enter DX:” prompt. You will have to enter each code or code group individually. After you enter each code, a list of codes that you have selected displays.

- 398.91
- 402.01
- 402.11
- 402.91
- 404.01
- 404.03
- 404.11
- 404.13
- 404.91
- 404.93
- 428.0
- 428.20 - 428.9
Collecting Data for the CMS Initiatives

***** SEARCH CRITERIA *****

What is the subject of your search? LIVING PATIENTS // PATIENT

Attribute of PATIENT: ADMISSION TO HOSPITAL

SUBQUERY: Analysis of multiple HOSPITAL ADMISSIONS

First condition of "HOSPITAL ADMISSION": BETWEEN DATES (inclusive)
Exact starting date: 010103 (JAN 01, 2003)
Exact ending date: 123103

Next condition of "HOSPITAL ADMISSION": DX

Do you want to screen each HOSPITAL ADMISSION according to the
DIAGNOSIS values obtained on the SAME visit? Yes// [RET]

Enter DX:
398.91
402.01
402.11
402.91
404.01
404.03
404.11
404.13
404.91
404.93
428.0
428.20 - 428.9

Figure 5-3: Adding Heart Failure as a Taxonomy (steps 5-13)

14. When you are done entering diagnoses, press the Return key at a blank “Enter Another DX:” prompt.

15. Type Y or N at the “Want to save this DX group for future use?” prompt. If
you type Y, type an appropriate name at the “Group Name:” prompt, type
YES at the “Are you adding ‘Group name’ as a new Taxonomy (the
###TH)?” prompt, type a brief description at the “Taxonomy Brief
Description:” prompt, and then type Y or N at the “Edit?” prompt.

Note: A good way to categorize your taxonomies so they are
easily remembered is begin each name with your initials followed
by a description. Example: JD CMS Pneumonia Dx for John Doe.
If you follow this standard, you can always type your initials and
all the taxonomies that you have created will show as choices.

16. Press the Return key at the “First Condition of ‘Diagnosis’:” prompt.

17. Press the Return key at the “Next Condition of ‘Hospital Admission’:”
prompt.
18. Type 1 at the “Your Choice:” prompt. The system displays 3 available options.

19. Type 2 at the next “Your Choice:” prompt.

20. As you can see QMan will “think” about your query briefly, usually only a few seconds, and then display the results on your terminal screen. You may interrupt the display at any time. If you wish to stop a search as it is running (when there is no prompt on the screen), press <Control – C>. If you wish to stop a report at the screen prompt “<>” enter the “hat” ( ^ ) and then press the Return key.

21. Figure 5-5 is a typical QMan report (To save space, this demo report has been abbreviated.). The patient is listed in the first column. If there is a “*” next to the patient’s name, it means that the patient has at least one alias and may be known to you by another name. The local chart number is always shown in
the second column (even though you did not request it). The chart number is printed to avoid mistaken identities. If the patient does not have a local chart number, the entry space will be blank. Other data requested in the report will appear to the right of the chart number.

22. At the end of the search, a total will be displayed followed by the “Press Return to continue or ‘^’ to exit:” prompt. Pressing the Return key here will place you back at the top of the QMan search menu.

Please note: Patients whose names are marked with an "*" may have aliases.

<table>
<thead>
<tr>
<th>PATIENTS</th>
<th>WHITER DISCHARGE SUMMARY NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient 1</td>
<td>8645  JUN 24,2003=&gt;JUN 29,2003@15:20 (5 days) GENE</td>
</tr>
<tr>
<td>Patient 2</td>
<td>8959  MAY 12,2003=&gt;MAY 21,2003@13:45 (9 days) GENE</td>
</tr>
<tr>
<td>Patient 3</td>
<td>5932  APR 14,2003=&gt;APR 18,2003@11:35 (4 days) GENE</td>
</tr>
<tr>
<td>Patient 4</td>
<td>5742  FEB 17,2003=&gt;FEB 20,2003@16:50 (1 days) GENE</td>
</tr>
<tr>
<td>Patient 5</td>
<td>8928  JUL 1,2003=&gt;JUL 2,2003@15:15 (1 days) GENERA</td>
</tr>
<tr>
<td>Patient 6</td>
<td>75527 SEP 7,2003=&gt;SEP 11,2003@11:01 (4 days) GENERA</td>
</tr>
<tr>
<td>Patient 7</td>
<td>5197  DEC 17,2003=&gt;DEC 20,2003@14:10 (3 days) GENE</td>
</tr>
<tr>
<td>Patient 8</td>
<td>5906  JUL 23,2003=&gt;JUL 24,2003@14:00 (1 days) GENE</td>
</tr>
<tr>
<td>Patient 9</td>
<td>6428  SEP 7,2003=&gt;SEP 11,2003@11:00 (4 days) GENERA</td>
</tr>
<tr>
<td>Patient 9</td>
<td>6428  AUG 6,2003=&gt;AUG 8,2003@12:00 (2 days) GENERA</td>
</tr>
<tr>
<td>Patient 10</td>
<td>6111  OCT 21,2003=&gt;OCT 25,2003@10:35 (4 days) GENE</td>
</tr>
<tr>
<td>Patient 11</td>
<td>7070  AUG 11,2003=&gt;AUG 20,2003@17:00 (9 days) GENE</td>
</tr>
<tr>
<td>Patient 11</td>
<td>7070  JUL 22,2003=&gt;AUG 5,2003@17:10 (14 days) GENE</td>
</tr>
<tr>
<td>Patient 11</td>
<td>7070  JUN 26,2003=&gt;JUL 14,2003@13:45 (18 days) GENE</td>
</tr>
<tr>
<td>Patient 12</td>
<td>7421  NOV 20,2003=&gt;NOV 22,2003@12:00 (2 days) GENE</td>
</tr>
<tr>
<td>Patient 12</td>
<td>7421  MAY 4,2003=&gt;MAY 7,2003@14:00 (3 days) GENERA</td>
</tr>
<tr>
<td>Patient 12</td>
<td>7421  APR 22,2003=&gt;APR 27,2003@12:50 (5 days) GENE</td>
</tr>
<tr>
<td>Patient 13</td>
<td>7698  APR 15,2003=&gt;APR 17,2003@19:45 (2 days) GENE</td>
</tr>
<tr>
<td>Patient 14</td>
<td>8175  NOV 1,2003=&gt;NOV 13,2003@14:00 (12 days) GENE</td>
</tr>
<tr>
<td>Patient 15</td>
<td>9157  AUG 22,2003=&gt;AUG 26,2003@15:20 (0 days) GENE</td>
</tr>
<tr>
<td>Patient 15</td>
<td>9157  MAR 7,2003=&gt;MAR 10,2003@17:10 (3 days) GENERA</td>
</tr>
<tr>
<td>Patient 16</td>
<td>8886  OCT 7,2003=&gt;OCT 17,2003@13:05 (10 days) GENE</td>
</tr>
<tr>
<td>Patient 16</td>
<td>8886  JUL 20,2003=&gt;JUL 22,2003@13:05 (2 days) GENE</td>
</tr>
<tr>
<td>Patient 16</td>
<td>8886  JUN 11,2003=&gt;JUN 17,2003@13:00 (6 days) GENE</td>
</tr>
<tr>
<td>Patient 16</td>
<td>8886  MAY 23,2003=&gt;MAY 26,2003@10:55 (3 days) GENE</td>
</tr>
<tr>
<td>Patient 16</td>
<td>8886  APR 29,2003=&gt;MAY 1,2003@12:00 (2 days) GENERA</td>
</tr>
<tr>
<td>Patient 17</td>
<td>10176 APR 4,2003=&gt;APR 7,2003@16:00 (3 days) GENERA</td>
</tr>
<tr>
<td>Patient 18</td>
<td>21025 FEB 27,2003=&gt;MAR 6,2003@16:20 (7 days) GENERA</td>
</tr>
<tr>
<td>Patient 19</td>
<td>33118 AUG 26,2003=&gt;SEP 4,2003@18:05 (9 days) GENERA</td>
</tr>
<tr>
<td>Patient 20</td>
<td>24662 DEC 13,2003=&gt;DEC 20,2003@12:15 (7 days) GENE</td>
</tr>
<tr>
<td>Patient 21</td>
<td>34934 MAY 7,2003=&gt;MAY 10,2003@11:50 (3 days) GENERA</td>
</tr>
<tr>
<td>Patient 22</td>
<td>42980 APR 3,2003=&gt;APR 6,2003@11:05 (3 days) GENERA</td>
</tr>
<tr>
<td>Total: 32</td>
<td></td>
</tr>
</tbody>
</table>

Figure 5-5: Adding Heart Failure as a Taxonomy (sample output)
### 5.3 Checklist

<table>
<thead>
<tr>
<th>Step</th>
<th>Instruction</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Select Search PCC Database</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Search Subject: PATIENT</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Attribute: ADMISSION TO HOSPITAL</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Condition: BETWEEN DATES</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Exact Starting Date: This date is the beginning date for the time period that you want to look at charts.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Exact Ending Date: This date is the ending date for the time period that you want to look at charts.</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Next Condition: DX</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Diagnosis Values Obtained on the Same Visit?: YES</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Enter DX Values:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>398.91</td>
<td></td>
</tr>
<tr>
<td></td>
<td>402.01</td>
<td></td>
</tr>
<tr>
<td></td>
<td>402.11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>402.91</td>
<td></td>
</tr>
<tr>
<td></td>
<td>404.01</td>
<td></td>
</tr>
<tr>
<td></td>
<td>404.03</td>
<td></td>
</tr>
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<td></td>
<td>404.11</td>
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</tr>
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<td></td>
<td>404.13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>404.91</td>
<td></td>
</tr>
<tr>
<td></td>
<td>404.93</td>
<td></td>
</tr>
<tr>
<td></td>
<td>428.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>428.20 - 428.9</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Save this DX Group for Future Use</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Group Name:</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Taxonomy Brief Description:</td>
<td></td>
</tr>
</tbody>
</table>
6.0 Resources

6.1 Web Sites

The qnetexchange site has all of the CMS measure specifications. All of the specs, updated as needed, are maintained at the following:

http://www.qnetexchange.org/public/cart/resources.jsp?txt=

There are self extracting zip files with the specifications, inclusion and exclusion criteria, abstracting guidelines. Please be advised that CMS is in the process of aligning with JCAHO and there will be changes on this site beginning in July.

Fact sheets and other information can be found at:

http://www.cms.hhs.gov/quality/hospital/


6.2 Accessing CMS’s FAQs

CMS maintains a list of FAQs on their hospital measures at a site called Quest.

The following instructions explain how to access the CMS’s FAQs through the Quest Web site:

1. Go to www.qnetexchange.org

Or

Go to www.medqic.org and click on "contact medqic" at the bottom toolbar. Click on "ask a new question" or "search FAQs" then skip to step 5.

2. Click on CART or HDC tab

3. If you select the CART tab, click on CART homepage

4. Click on Q&A’s (QNet QUEST), in the left hand column (the link on the HDC tab is located under Related Resources

5. Select a topic from the Topic drop down box: AMI, Heart Failure, Pneumonia or Surgical Infection Prevention

6. Type in a keyword. This will be a word related to your question.

7. Click “Submit”
8. Read through the questions to assure that your question has not already been asked and answered.

9. If the question has not been answered, click “Search Unpublished.” This will search questions that have been asked but not yet answered. If the question has been asked there is no need to ask it again.

10. If the question has not been asked, click “Submit New Question.”

11. Enter your question, email address, phone number, select a topic and click submit.

12. You must put “Premier” in the body of the question so that the person answering can respond correctly for Premier questions. The email address and phone number do not accompany the question when it is sent to the person answering the question.

13. At this time if questions similar to yours have been asked, they will appear on the screen. You can read through these to assure that none of them will answer your question.

14. If you question has not been asked, click on, “Yes, please submit my new question” and click Submit.

15. At this point you will receive a screen that says your question has been successfully submitted and you will be contacted when your question is answered.

16. You should receive your answer within a few days. All questions will be answered.

17. Not all questions are appropriate for publishing on QUEST. Therefore, some questions may receive answers but not be available for viewing on QUEST.
6.3 Reporting Hospital Quality Data Reference Checklist

Reporting Hospital Quality Data for Annual Payment Update
Centers for Medicare & Medicaid Services (CMS)
Reference Checklist

This information describes how hospitals that are paid for treating Medicare beneficiaries under the acute care inpatient prospective payment system can receive their full Medicare Annual Payment Update in accordance with Section 501(b) of the Medicare Prescription Drug, Improvement and Modernization Act of 2003, i.e., hospitals as defined under the Social Security Act, Section 1883(d)(1)(B), known as subsection d hospitals. Section 501(b) stipulates that hospitals that do not submit data for all 10 required quality measures in the manner specified by the Department of Health and Human Services will receive 0.4 percent reduction in their Medicare Annual Payment Update. This law is in effect for fiscal years 2005-2007.

This checklist outlines the steps hospitals must take to receive that update. In part, hospitals wanting to receive their full market basket update must complete two forms: 1) a registration for QualityNet Exchange and 2) a Reporting Hospital Quality Data for Annual Payment Update Notice of Participation. In addition, hospitals that will choose to have another organization, such as a performance measurement system (PMS) or vendor, transmit their data to the data warehouse will need to complete a vendor authorization form. If a hospital is already participating in the National Voluntary Hospital Reporting Initiative, it is likely to already have completed the registration for QualityNet Exchange and a vendor authorization form. It does not need to fill out new forms and send them in. The previous forms are acceptable. It must, however, complete the Notice of Participation form. All of these forms are appended to this Notice.

1. Identify a QualityNet Exchange Administrator who then registers the hospital on QualityNet Exchange. The Administrator follows the process specified on the secure site at www.qualityexchnge.org and contacts its Quality Improvement Organization (QIO). A description of the QualityNet Exchange Administrator's responsibilities and information on the registration process can be found in the QualityNet Exchange Registration section. A hospital can find contact information for its states QIO at www.cms.hhs.gov.

A hospital is required to register for QualityNet Exchange if they are participating in this national effort, even if they are using a vendor to transmit data. QualityNet Exchange registrations must be complete, submitted to the QIO, and received by the QualityNet Exchange staff from your QIO no later than June 1, 2004. While registration is not difficult, it will require some time to process the forms, both in the hospital and at the QIO, so hospitals should begin processing their paperwork with their QIO by early May to ensure the completed form can be received by the QualityNet Exchange staff by June 1, 2004.

2. Complete the Reporting Hospital Quality Data for Annual Payment Update (RHQDAPU) Notice of Participation form (see Appendix A).

The hospital must send a Notice of Participation form for the RHQDAPU to be received and accepted by their QIO no later than August 1, 2004 for the fiscal year 2005 update. Detailed deadlines for subsequent fiscal year updates will be established in the future. The QIO is responsible for entering this information into their tracking system within the established deadlines. Non-receipt of this notice will be interpreted as a desire not to submit the required data to receive the Annual Payment Update.
Appendix A

**Reporting Hospital Quality Data for Annual Payment Update**

**Notice of Participation**

- We agree to participate at this time (complete entire form including initials)
- We do not agree to participate at this time or are a non-PPS hospital

We agree to register for QualityNet Exchange and to collect the appropriate data for all payers, and will begin submitting data directly, or through a third party vendor, on the measures identified for Reporting Hospital Quality Data for Annual Payment Update (RHQDA). We will have data transmitted to the QIO Clinical warehouse beginning with discharges for the quarter(s) indicated below:

- We will submit data for FY 2005 payment update and beyond.

The 4th Quarter 2003 discharges will be submitted by May 15, 2004 and 1st quarter 2004 discharges will be successfully accepted by August 15, 2004; OR submission of 1st Quarter 2004 discharges will be started by July 1 and completed by August 1, 2004.

**Note:** If your hospital is eligible to participate in the Annual Payment Update as outlined in Section 501(b) of the Medicare Prescription Drug, Improvement and Modernization Act of 2003, and does not participate, your Annual Payment Update will be reduced by 0.4 percent.

This information is in compliance with the CMS guidelines for hospitals submitting their quality performance data in accordance with Section 501(b) of the Medicare Prescription Drug, Improvement and Modernization Act of 2003. Hospitals that do not submit data for all 10 required quality measures to the QIO Clinical Warehouse will receive a reduction of 0.4 percent in their Medicare Annual Payment Update in fiscal year 2005. In order to avoid the reduction in their Annual Payment Update, certain requirements must be met. CMS will determine Annual Payment Updates based on whether:

1) PPS hospitals are registered for QualityNet Exchange by the established deadline, and 2) data are successfully submitted to CMS via the QIO Clinical Warehouse by the established deadlines. **Note:** Refer to the RHQDA Reference Checklist for the deadlines for submission for the 2005 Payment Update. The timeline for subsequent fiscal years will be established and published in the future.

It is CMS’s intent to publish data from the 1st quarter 2004 discharges used for the Annual Payment Update. For subsequent fiscal year payment updates, CMS will look at data in the QIO Clinical Warehouse for four consecutive quarters. Details for subsequent fiscal year submissions will be established and provided in the future. The Secretary of the Department of Health and Human Services will request the data required to meet the conditions for the full Annual Payment Update from the QIOs. Data aggregated at the hospital level will be provided to the Secretary from the QIO Clinical Warehouse. The Secretary intends to publish this data. For the fiscal year 2005 Annual Payment Update, validation of the submitted data will not be part of the submission requirements. For subsequent submissions, fiscal years 2006 and 2007, CMS will establish validation requirements for all submitted data.

**Quality Improvement Organization:**

<table>
<thead>
<tr>
<th>Hospital Name:</th>
<th>Medicare Provider Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Address:</td>
<td></td>
</tr>
<tr>
<td>City, State, Zip Code:</td>
<td></td>
</tr>
<tr>
<td>Hospital CEO (or designee) Name (please print):</td>
<td>Signature Date:</td>
</tr>
<tr>
<td>Title:</td>
<td>Signature: CEO/Designee Initials:</td>
</tr>
</tbody>
</table>

Please identify your hospital’s point of contact for hospital reporting activities:

<table>
<thead>
<tr>
<th>Name (please print):</th>
<th>E-mail:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title:</td>
<td>Telephone:</td>
</tr>
<tr>
<td></td>
<td>Fax:</td>
</tr>
</tbody>
</table>

Released 03/26/04
Appendix D

Withdrawal of Participation in the
Reporting Hospital Quality Data for
Annual Payment Update

Our hospital is withdrawing from the “Reporting Hospital Quality Data for Annual Payment Update” at this time. Based on this withdrawal, it is our understanding that our hospitals Annual Payment Update will be reduced by 0.4% for the next fiscal year.

Hospital Name: __________________________________________

Medicare Provider Number: ______________________________________

Street Address: _______________________________________________

City, State, Zip Code: __________________________________________

Hospital CEO (or designee):
Name (please print): ___________________________________________

Title: _________________________________________________________

Signature: _____________________________________________________

Date Signed: __________________________
Reporting Hospital Quality Data for Annual Payment Update
Centers for Medicare & Medicaid Services (CMS)
Process Detail Checklist

Chart Audit Validation (continued)

5. Validation results:
- Hospital passes validation if they achieve an 80.0% or greater agreement rate across the selected elements on the five discharges. Data in the warehouse for that quarter is flagged as "validated".
- Hospital fails validation if they received less than 80.0% agreement rate across the five discharges. Data for that quarter is flagged as "unvalidated".
- For the fiscal year 2005 Annual Payment Update, validation of the submitted data will not be part of the submission requirements. For subsequent submissions (fiscal years 2006 and 2007), CMS will establish validation requirements for all submitted data.

6. QIO offers educational assistance and/or additional training for hospitals failing validation or those requesting assistance to improve their hospital validation results.

7. Hospitals that fall below an 80.0% agreement rate on their validation results will have the ability to appeal the CDAC findings based on the copy of the medical record submitted. It is important for hospitals to ensure that the complete copy of the medical record is submitted to the CDACs upon the initial request; hospitals will not be allowed to submit additional components of the medical record during an appeal.

An appeal form is included with the validation reports that will be posted in the QualityNet Exchange in-box of the hospital users with the QIO Clinical Warehouse Feedback Reports role. The appeal form is also available on the QualityNet Exchange Web site. Refer to the Hospital Validation Process flowchart form in Appendix F.

Resources

www.cms.hhs.gov
- Reporting Hospital Quality Data for Annual Payment Update
- Hospital Quality Initiative Information

www.medicqic.org (CMS Medicare Quality Improvement Clearinghouse)
- QIO Directory
- Quality improvement resources and strategies

www.qualitynetexchange.org (QualityNet Exchange – a public resource for Hospital Data Collection (go to HDC tab) and CART; a secure site for data transmission)
- Reporting Hospital Quality Data for Annual Payment Update
- National Voluntary Hospital Reporting Initiative (10-starter measures listed)
- CMS Abstraction & Reporting Tool (CART) software and User Guides
- Data transmission requirements
- Data Validation
- Quality of Care Measures, Data Abstraction Definitions, Analytic Flowcharts
- Recorded Training Sessions (CART, XML Case Checker, QualityNet Exchange, and Abstraction Definitions)
- Questions and Answers (QUEST)

This material was prepared by the Iowa Foundation for Medical Care under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the US Department of Health and Human Services.
6.4 Inclusion/Exclusion Criteria

PNEUMONIA
POPULATION ELIGIBLE FOR MEDICAL RECORD SELECTION
INCLUSION/EXCLUSION CRITERIA

**INCLUDE:**
Principal diagnosis ICD-9-CM code (from acute care hospital discharges, including CAH) of:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>480.0</td>
<td>Viral pneumonia due to adenovirus</td>
</tr>
<tr>
<td>480.1</td>
<td>Viral pneumonia due to RSV</td>
</tr>
<tr>
<td>480.2</td>
<td>Viral pneumonia due to parainfluenza virus</td>
</tr>
<tr>
<td>480.3</td>
<td><em>Pneumonia due to SARS-associated coronavirus</em></td>
</tr>
<tr>
<td>480.8</td>
<td>Viral pneumonia due to other virus NOC</td>
</tr>
<tr>
<td>480.9</td>
<td>Viral pneumonia, unspecified</td>
</tr>
<tr>
<td>481</td>
<td>Pneumococcal pneumonia</td>
</tr>
<tr>
<td>482.0</td>
<td>Bacterial pneumonia due to Klebsiella</td>
</tr>
<tr>
<td>482.1</td>
<td>Bacterial pneumonia due to Pseudomonas</td>
</tr>
<tr>
<td>482.2</td>
<td>Bacterial pneumonia due to H. influenzae</td>
</tr>
<tr>
<td>482.30</td>
<td>Bacterial pneumonia due to Streptococcus, unspecified</td>
</tr>
<tr>
<td>482.31</td>
<td>Bacterial pneumonia due to Streptococcus, Group A</td>
</tr>
<tr>
<td>482.32</td>
<td>Bacterial pneumonia due to Streptococcus, Group B</td>
</tr>
<tr>
<td>482.39</td>
<td>Bacterial pneumonia due to other Streptococcus</td>
</tr>
<tr>
<td>482.40</td>
<td>Bacterial pneumonia due to Staphylococcus, unspecified</td>
</tr>
<tr>
<td>482.41</td>
<td>Bacterial pneumonia due to Staphylococcus aureus</td>
</tr>
<tr>
<td>482.49</td>
<td>Bacterial pneumonia due to other Staphylococcus pneumonia</td>
</tr>
<tr>
<td>482.81</td>
<td>Bacterial pneumonia due to anaerobes</td>
</tr>
<tr>
<td>482.82</td>
<td>Bacterial pneumonia due to E. coli</td>
</tr>
<tr>
<td>482.83</td>
<td>Bacterial pneumonia due to other gram-negative bacteria</td>
</tr>
<tr>
<td>482.84</td>
<td>Bacterial pneumonia due to Legionnaires’ disease</td>
</tr>
<tr>
<td>482.89</td>
<td>Bacterial pneumonia due to other specified bacteria</td>
</tr>
<tr>
<td>482.9</td>
<td>Bacterial pneumonia unspecified</td>
</tr>
<tr>
<td>483.0</td>
<td>Pneumonia due to Mycoplasma pneumoniae</td>
</tr>
<tr>
<td>483.1</td>
<td>Pneumonia due to Chlamydia</td>
</tr>
<tr>
<td>483.8</td>
<td>Pneumonia due to other specified organism</td>
</tr>
<tr>
<td>485</td>
<td>Bronchopneumonia, organism unspecified</td>
</tr>
<tr>
<td>486</td>
<td>Pneumonia, organism unspecified</td>
</tr>
<tr>
<td>487.0</td>
<td>Influenza with pneumonia</td>
</tr>
</tbody>
</table>

**Principal diagnosis ICD-9-CM code (from acute care hospital discharges, including CAH) of:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>038.0-038.9</td>
<td>(septicemia) OR</td>
</tr>
<tr>
<td>518.81</td>
<td>(acute respiratory failure) OR</td>
</tr>
<tr>
<td>518.84</td>
<td>(acute and chronic respiratory failure)</td>
</tr>
</tbody>
</table>

**AND**
Secondary diagnosis code of pneumonia (See ICD-9-CM codes listed above)

**EXCLUDE:**
None

---

*This ICD-9-CM diagnosis code is effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.*
6.5 PNE Analytic Flowcharts with Values

6.5.1 PNE-1: Initial Antibiotic Received Within 4 Hours of Hospital Arrival (CMS Only)

**Numerator** – Number of pneumonia patients who received their first dose of antibiotics within 4 hours after arrival at the hospital.

**Denominator** – All pneumonia patients with a working diagnosis of pneumonia on admission and who were not receiving comfort care measures only.
Collecting Data for the CMS Initiatives

*The ICD-9-CM code of 480.3 (Pneumonia due to SARS-associated coronavirus) will be effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.*
Collecting Data for the CMS Initiatives

Antibiotic Time

Concatenate Arrival Date and Arrival Time to create the variable ARRVLDTTM in seconds

Concatenate the Antibiotic Date and Antibiotic Time to create the variable ANTISTDTTM in seconds for all antibiotics given on the earliest date with a valid abx time

Calculate ANTIMINUTES = (ANTISTDTTM - ARRVLDTTM)/60 for abx w/ valid abx time and that were given on the earliest date

ANTIMINUTES <= 240 (4hrs) for any abx w/ valid time given on the earliest date?

In Denominator

Missing or invalid numerator

In Numerator

NOTE: Only check for available and valid Antibiotic Times for antibiotics given on the earliest date.

PNE-1

PNE-1

PNE-1

PNE-1

PNE-1

PNE-1

PNE-1

PNE-1

PNE-1

PNE-1

PNE-1

PNE-1

PNE-1

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6.5.2 CAP-5: Median Time to First Antibiotic Dose (JCAHO Only)

Continuous Variable Statement – Time (in hours/minutes) from hospital arrival to administration of the first dose of antibiotics in the hospital.

* The ICD-9-CM code of 480.3 (Pneumonia due to SARS-associated coronavirus) will be effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.
Patient Age = Admission date - Birth date (in years)

< 0 days

Patient Age

>= 0 days and < 29 days

>= 29 days

Arrival date

Arrival time

Antibiotic Received

Initial antibiotic start date

Initial antibiotic start time

Measurement Value = Initial Antibiotic Start Date and Time minus Arrival Date and Time (ANTIMINUTES) in minutes
6.5.3 PNE-2: Initial Antibiotic Selection for Community-Acquired Pneumonia (CAP) in Immunocompetent Patients (CMS Only)

**Numerator** – Number of pneumonia patients greater than or equal to 18 years of age who received an initial antibiotic regimen consistent with current guidelines during the first 24 hours of their hospitalization.

**Denominator** – All pneumonia patients with a working diagnosis of pneumonia on admission and who were not receiving comfort care measures only.
Collecting Data for the CMS Initiatives

*The ICD-9-CM code of 480.3 (Pneumonia due to SARS-associated coronavirus) will be effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.*
Collecting Data for the CMS Initiatives

- **Arrival Time**
  - **Antibiotic**
    - **Received**
      - Antibiotic during 1st 36 hrs after arrival
        - Antibiotic received = “No” or “Yes, but prior to arrival only”
        - Antibiotic received = “Yes, both prior to arrival and during hospitalization” or “Yes, during hospitalization only”

- **Patient Age** = Admission date - Birth date (in years)
  - < 0 years
  - >= 0 years and < 18 years
  - >= 18 years

- **Concatenate** Arrival Date and Arrival Time to create the variable ARRVLDTTM in seconds
- **Concatenate** the Antibiotic Date and Antibiotic Time to create the variable ANTISTDTTM in seconds for all antibiotics

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Collecting Data for the CMS Initiatives

**NOTE:** Only check for available and valid Antibiotic Times for antibiotics with an available and valid Antibiotic Date.

- **ANTIMINUTES** = \((\text{ANTISTDTTM} - \text{ARRVLDTTM})/60\)
  - **YES**
  - **NO**

**Antibiotic Start Date**
- Antibiotic Date
- Arrival Date for at least 1 abx

**Antibiotic Time**
- Antibiotic Name
- Antibiotic Date = Arrival Date for at least 1 abx?

**Antibiotic Name**
- Antibiotic start date
- Antibiotic Name
- All missing

**Missing or Invalid Denominator**
- ICU admission in 1st 24hrs after arrival
- ICU24=Yes
- ICU24=No

**All missing Antibiotic name**
- Antibiotic name
- Antibiotic start date
- Antibiotic Name

**NOTE:** When going through the process of checking for consistency with current abx guidelines, only check abx that were given the day of arrival and/or in the first 24hrs after arrival according to **ANTIMINUTES**.

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Collecting Data for the CMS Initiatives

PNE-2 C

All missing/invalid

Antibiotic route

routeabx available & valid for at least one abx

NOTE: Only proceed with abx where name and route are available

YES

nameabx=gatifloxacin, levofloxacin, or moxifloxacin AND routeabx=IV or PO

PNE-2 E

NO

nameabx<>gatifloxacin, levofloxacin, or moxifloxacin OR routeabx<>IV or PO

YES

nameabx=ampicillin-sulbactam, cefotaxime, or ceftriaxone AND routeabx=IV or IM

PNE-2 D

NO

nameabx<>ampicillin-sulbactam, cefotaxime, or ceftriaxone OR routeabx<>IV or IM

NOTE: Only proceed with abx where name is available

YES

Received IV or PO Quinolone?

PNE-2 J

NO

Received IV or IM Beta-lactam?

NOTE: Only proceed with abx where name and route are available

YES

Received IV or PO Macrolide or Doxycycline?

PNE-2 D

NO

nameabx<>azithromycin, clarithromycin, erythromycin, or doxycycline OR routeabx<>IV or PO

nameabx=azithromycin, clarithromycin, erythromycin, or doxycycline AND routeabx=IV or PO

nameabx=ampicillin-sulbactam, cefotaxime, or ceftriaxone AND routeabx=IV or IM

nameabx<>ampicillin-sulbactam, cefotaxime, or ceftriaxone OR routeabx<>IV or IM

nameabx=azithromycin, clarithromycin, erythromycin, or doxycycline AND routeabx=IV or PO

nameabx<>azithromycin, clarithromycin, erythromycin, or doxycycline OR routeabx<>IV or PO

nameabx=azithromycin, clarithromycin, erythromycin, or doxycycline AND routeabx=IV or PO

nameabx<>azithromycin, clarithromycin, erythromycin, or doxycycline OR routeabx<>IV or PO

nameabx=ampicillin-sulbactam, cefotaxime, or ceftriaxone AND routeabx=IV or IM

nameabx<>ampicillin-sulbactam, cefotaxime, or ceftriaxone OR routeabx<>IV or IM

nameabx<
Collecting Data for the CMS Initiatives

NOTE: When going through the process of checking for consistency with current abx guidelines, only check abx that were given the day of arrival and/or in the first 24hrs after arrival according to ANTIMINUTES

Antibiotic name

- Name available & valid for at least one abx

- Only proceed with abx where name is available

Antibiotic route

- Route: IV for any abx

- Only proceed with abx where name is available and route: IV

Received IV Beta-lactam?

- Yes
  - Name: Ampicillin-sulbactam, cefotaxime, or ceftriaxone

- No
  - History of allergy to beta-lactam?
    - Yes
      - Received IV Macrolide or Quinolone?
        - Yes
          - Name: Azithromycin, erythromycin, gatifloxacin, levofloxacin, or moxifloxacin
        - No
          - Name: Clindamycin or Vancomycin
    - No
      - History of allergy to beta-lactam? = No or abx = invalid

Were any of the following pseudomonas risk factors present?

- othrdx = 494.XX
- bronchiect = Yes
- malnutri = Yes
- alblevel < 3

- All factors are NO or other factors are equal to NO

At least one factor other than the othrdx is missing or invalid and the other factors are NO

At least one factor is YES

All factors are NO or other factors are equal to NO

At least one factor is YES
6.5.4 PNE-3a: Blood Cultures Performed Within 24 Hours Prior to or After Hospital Arrival (CMS Only)

**Numerator** – Number of pneumonia patients who had blood cultures performed within 24 hours prior to or after arrival at the hospital.

**Denominator** – All pneumonia patients with a working diagnosis of pneumonia on admission and who were not receiving comfort care measures only.
Collecting Data for the CMS Initiatives

*The ICD-9-CM code of 480.3 (Pneumonia due to SARS-associated coronavirus) will be effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.*

---

**Derived Variables:**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PATIENT AGE</td>
<td>Patient Age</td>
</tr>
<tr>
<td>INITBLOODMINUTES</td>
<td>Initiation BloodMinutes</td>
</tr>
</tbody>
</table>

**Transfer from acute care or CAH:**

- Yes, Patient Age is admission date - birthdate (in years)
- No, Patient Age is admission date - birthdate (in years)

**Not in Denominator:**

- Yes
- No

---

**Transfer from acute care or CAH:**

- Yes, Patient Age is admission date - birthdate (in years)
- No, Patient Age is admission date - birthdate (in years)
Collecting Data for the CMS Initiatives

1. Concatenate Arrival Date and Arrival Time to create the variable `ARRVLDTTM` in seconds.

2. Concatenate the Initial Blood Culture Date and Initial Blood Culture Time to create the variable `INITBLOODCDTTM` in seconds.

3. For `PNE-3a.H`:
   - Blood culture prior to arrival
     - Blood prior to arrival:
       - Yes: `PNE-3a.E`
       - No or missing or invalid: `PNE-3a.D`

4. For `PNE-3a.A`:
   - Blood culture after arrival
     - Blood after arrival:
       - Yes: process
       - No or missing or invalid: `PNE-3a.D`

5. For `PNE-3a.A`:
   - Arrival Date
     - Arrival date available & valid
       - `PNE-3a.Z`

6. For `PNE-3a.A`:
   - Arrival Time
     - Arrival time available & valid
       - `PNE-3a.Z`

7. For `PNE-3a.C`:
   - Blood culture date
     - Initial blood culture date available & valid
       - `PNE-3a.Z`

8. For `PNE-3a.C`:
   - Blood culture time
     - Initial blood culture time available & valid
       - `PNE-3a.Z`

9. Concatenate `ARRVLDTTM` and `INITBLOODCDTTM` to create the variable `FISCALYR` in seconds.

10. For `PNE-3a.I`:
    - Denominator
      - Missing or invalid numerator
        - `PNE-3a.Z`

11. For `PNE-3a.I`:
    - Numerator
      - Missing or invalid numerator
        - `PNE-3a.Z`

12. For `PNE-3a.A`:
    - Missing or invalid denominator
      - `PNE-3a.Z`
6.5.5 PNE-3b: Blood Culture Performed Before First Antibiotic Received in Hospital (CMS/JCAHO CAP-3)

**Numerator** – Number of pneumonia patients whose initial blood culture was performed prior to the administration of the first hospital dose of antibiotics.

**Denominator** – All pneumonia patients with a working diagnosis of pneumonia on admission and who were not receiving comfort care measures only and who had a blood culture performed.
Collecting Data for the CMS Initiatives

**Derived Variables:**
- **PATIENT AGE**
- **ANTIBLOODMINUTES**

**ICD-9-CM principal diagnosis of pneumonia:**
- PNE-3b

**Other diagnosis code of pneumonia:**
- PNE-3b

**Working diagnosis on admission:**
- Yes
- No

**Comfort Measures:**
- Yes
- No

**Transfer from acute care or CARH:**
- Yes
- No

**Admission Date:**
- Available & valid
- Not available

**Birthdate:**
- Available & valid
- Not available

*The ICD-9-CM code of 480.3 (Pneumonia due to SARS-associated coronavirus) will be effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.*
Collecting Data for the CMS Initiatives

Patient Age = Admission date - Birth date (in years)

- < 0 days
- ≥ 0 days and < 29 days
- ≥ 29 days

Antibiotic Received

- antibicvd='No' or 'Yes, but prior to arrival only'
- antibicvd='Yes, both prior to arrival and during hospitalization' or 'Yes, during hospitalization only'

Blood Culture after arrival

- bloodcafrar=No
- bloodcafrar=Yes

Antibiotic Start Date

- antibx available & valid for at least one abx
- missing/invalid or '9999' for all abx

Antibiotic Start Time

- antibx available & valid for at least one abx given on the earliest date
- missing/invalid

Blood Culture Date

- initbloodcdt available & valid
Collecting Data for the CMS Initiatives

PNE-3b

I

Blood Culture Time

Concatenate Blood Culture Date and Blood Culture Time to create the variable INITBLOODCDTTM in seconds

Concatenate the Antibiotic Date and Antibiotic Time to create the variable ANTISTDTTM in seconds for antibiotics given on the earliest date with a valid abx time

ANTIBLOODMINUTES=(ANTISTDTT
INITBLOODCDTTM)/60

ANTIBLOODMINUTES >= 0 for the earliest abx given?

YES

In Numerator

NO

In Denominator

Stop

PNE-3b

C

Missing or invalid numerator

Missing or invalid or '9999'

initbloodctm available & valid

missing/invalid or '9999'

initbloodctm available & valid

D

E

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6.5.6 PNE-4: Influenza Vaccination (CMS Only)

**Numerator** – Patients discharged during October, November, December, January, or February with pneumonia, age 50 and older, which were screened for influenza vaccine status and were vaccinated prior to discharge, if indicated.

**Denominator** – All pneumonia patients age 50 and older with a working diagnosis of pneumonia on admission and who were not receiving comfort care measures only.
The discharge status code 43, discharged/transferred to a federal hospital, is effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.

The discharge status code 65, discharged/transferred to a psychiatric hospital, is effective beginning with 04/01/04 discharges, and will be programmed into a future version of CART.
6.5.7 PNE-5: Pneumococcal Vaccination (CMS /JCAHO CAP-2)

**Numerator** – Patients with pneumonia, age 65 and older, which were screened for pneumococcal vaccine status and were vaccinated prior to discharge, if indicated.

**Denominator** – All pneumonia patients age 65 and older with a working diagnosis of pneumonia on admission and who were not receiving comfort care measures only.
Collecting Data for the CMS Initiatives

Start

**Derived Variables:**
- PATIENT AGE

**ICD-9-CM prin diag of pneumonia?**
- Yes: PNE-5 A
- No: PNE-5 B

**ICD-9-CM prin diag of septicemia or respiratory failure**
- Yes: PNE-5 A
- No: PNE-5 B

**Other diag code of pneumonia**
- Yes: PNE-5 A
- No: PNE-5 B

**Pneumonia working diag on admission**
- Yes: PNE-5 A
- No: PNE-5 B

**Comfort Measures Only**
- Yes: PNE-5 A
- No: PNE-5 B

**Transfer from acute care or CAH**
- Yes: PNE-5 A
- No: PNE-5 B

**Admission Date**
- Available & valid: PNE-5 A
- Not available: PNE-5 B

**Birthdate**
- Available & valid: PNE-5 A

* The ICD-9-CM code of 480.3 (Pneumonia due to SARS-associated coronavirus) will be effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.
Collecting Data for the CMS Initiatives

**PNE-5**

**Patient Age = Admission date - Birth date (in years)**

- **< 0 years**
- **≥ 0 years and < 65 years**
- **≥ 65 years**

**Discharge Status**

- **dischgstat=01, 03, 04, 05, 06, 08, 61, 62, 63, 64, 65**
- **dischgstat=02, 07, 20, 41, 43, 50, 51**

- **pnvacstatdoc='patient received' or 'patient refused'**
- **pnvacstatdoc='patient candidate' or 'not documented' or missing or invalid**

- **Missing or Invalid Denominator**
- **In Denominator**
- **In Numerator**

1. The discharge status code 43, discharged/transferred to a federal hospital, is effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.
2. The discharge status code 65, discharged/transferred to a psychiatric hospital, is effective beginning with 04/01/04 discharges, and will be programmed into a future version of CART.
6.5.8 PNE-6: Adult Smoking Cessation Advice/Counseling (CMS/JCAHO CAP-4a)

**Numerator** – Number of adult pneumonia patients (cigarette smokers) 18 years of age or older who received smoking cessation advice or counseling during the hospital stay.

**Denominator** – All pneumonia patients 18 years of age or older with a working diagnosis of pneumonia on admission and who were not receiving comfort care measures only and who had a history of smoking cigarettes anytime during the year prior to hospital arrival.
Collecting Data for the CMS Initiatives

* The ICD-9-CM code of 480.3 (Pneumonia due to SARS-associated coronavirus) will be effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.
Collecting Data for the CMS Initiatives

Patient Age = Admission date - Birth date (in years)

Patient Age

< 0 years

>= 0 years and < 18 years

>= 18 years

Discharge Status

dischgstat=02, 07, 20, 41, 431, 50, 51

dischgstat=01, 03, 04, 05, 06, 08, 61, 62, 63, 64, 652, 71, 72

Adult Smoking History

adsmkhist='No' or 'Not documented'

adsmkhist=Yes

Missing or Invalid Denominator

Missing or invalid Discharge Status

Missing or invalid Adult Smoking History

Missing or invalid Adult Smoking counseling

Missing or invalid numerator

In Denominator

In Numerator

Not in Denominator

Stop

PNE-6 H

PNE-6 A

PNE-6 B

PNE-6 A

PNE-6 A

PNE-6 Z

PNE-6 Z

PNE-6 Z
6.5.9 JCAHO CAP-4b: Pediatric Smoking Cessation Advice/Counseling (JCAHO Only)

**Numerator** – Number of pediatric pneumonia patients less than 18 years of age and/or their caregivers who received smoking cessation advice or counseling during the hospital stay.

**Denominator** – All pediatric pneumonia patients less than 18 years of age and/or their caregivers with a history of smoking cigarettes during the year prior to arrival with a working diagnosis of pneumonia on admission and who were not receiving comfort care measures only.
Collecting Data for the CMS Initiatives

* The ICD-9-CM code of 480.3 (Pneumonia due to SARS-associated coronavirus) will be effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.
Collecting Data for the CMS Initiatives

Patient Age = Admission date - Birth date (in years)

< 0 years

>= 0 years and < 18 years

>= 18 years

Discharge Status

dischstat=02, 07, 20, 41, 43, 50, 51

dischstat=01, 03, 04, 05, 06, 08, 61, 62, 63, 64, 65, 71, 72

Pediatric/Caregiver Smoking History

pedsmkhist='Neither' or 'Not documented'

Emergency/Caregiver smoking
pedsmkhist='ped patient smokes', 'caregiver smokes', or 'both patient & caregiver smoke'

Missing or invalid denominator

Missing or invalid numerator

Pediatric/Caregiver Smoking counseling

Pedsmkcouns available & valid

Missing or invalid denominator

Not in Denominator

1 The discharge status code 43, discharged/transferred to a federal hospital, is effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.

2 The discharge status code 65, discharged/transferred to a psychiatric hospital, is effective beginning with 04/01/04 discharges, and will be programmed into a future version of CART.
6.5.10 PNE-7: Oxygenation Assessment (CMS /JCAHO CAP-1)

**Numerator** – Number of pneumonia patients whose arterial oxygenation was assessed by ABG or pulse oximetry within 24 hours prior to or after hospital arrival.

**Denominator** – All pneumonia patients with a working diagnosis of pneumonia on admission and who were not receiving comfort care measures only.
Collecting Data for the CMS Initiatives

**Derived Variables:**

- **PATIENT AGE**
- **Missing/Invalid**
- **YES**
- **NO**
- **prindx=480.0, 480.1, 480.2, 480.3*, 480.8, 480.9, 481, 482.0, 482.1, 482.2, 482.30, 482.31, 482.32, 482.39, 482.40, 482.41, 482.42, 482.48, 482.81, 482.82, 482.83, 482.84, 482.89, 483.0, 483.1, 483.8, 485, 486, 487.0**
- **prindx<>480.0, 480.1, 480.2, 480.3*, 480.8, 480.9, 481, 482.0, 482.1, 482.2, 482.30, 482.31, 482.32, 482.39, 482.40, 482.41, 482.42, 482.48, 482.81, 482.82, 482.83, 482.84, 482.89, 483.0, 483.1, 483.8, 485, 486, 487.0**
- **prindx=038.XX, 518.81, 518.84**
- **prindx<>038.XX, 518.81, 518.84**
- **All invalid**
- **YES**
- **NO**
- **othrdx#<>pneumonia code**
- **othrdx#=pneumonia code**
- **workingdx=No**
- **workingdx=Yes**
- **comfortmx=Yes**
- **comfortmx=No**
- **admnsrc=4 or A**
- **admnsrc=1, 2, 3, 5, 6, 7, 8 or 9**
- **admit-date available & valid**
- **birthdate available & valid**

* The ICD-9-CM code of 480.3 (Pneumonia due to SARS-associated coronavirus) will be effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.
Collecting Data for the CMS Initiatives

Patient Age = Admission date - Birth date (in years)

- **Missing or Invalid Denominator**
  - **< 0 days**
  - **>= 0 days and < 29 days**
  - **>= 29 days**

- **Patient Age**

- **Not in Denominator**

- **Pulse Oximetry Done**
- **ABG Done**

- **Missing or Invalid Numerator**

- **ABG Done**

- **In Denominator**

- **In Numerator**

- **Stop**
6.5.11 Symbols Used with Flowcharts

The oval is used to denote the beginning or end of an algorithm and usually contains the word “Start” or “Stop”.

Diamonds represent “If . . . Then” decision points for logic tests and comparisons.

Rectangles (sometimes referred to as process boxes) show when computation or manipulation of the data is required, such as calculating a derived variable.

Circles are “on-page” connectors and are labeled with a capital letter that usually corresponds to a measure outcome box with the same letter. They show a link to sections of the algorithm which are continued on the same page.

Pentagons are “off-page” connectors and are labeled with a capital letter that usually corresponds to a measure outcome box with the same letter. They show a link to sections of the algorithm which are continued on a different page.

NOTE: These are also used to show the continuation of the algorithm onto the next page.

Measure Outcome Boxes represent the result of the data passed through the algorithm. For example, cases that are excluded, cases that are in the numerator, and cases that are in the denominator would each be represented by different measure outcome boxes.
7.0 Contact Information

If you have any questions or comments regarding this distribution, please contact the ITSC Service Center by:

Phone: (505) 248-4371 or
       (888) 830-7280
Fax: (505) 248-4363
Web: http://www.rpms.ihs.gov/TechSupp.asp
Email: ITSCHelp@mail.ihs.gov