RESOURCE AND PATIENT MANAGEMENT SYSTEM

QMan
Collecting Data for the CMS Initiatives

User Manual

Fiscal Year 2005

Information Technology Support Center
Division of Information Resources
Albuquerque, New Mexico

DOCUMENT REVISION HISTORY

Date	Location	Description
06/08/04	Section 6.2	Added additional method of access the CMS FAQs in step 1.
06/17/04	Sections 3.2 and 3.3	Added instructions on adding an Age attribute to the Pneumonia measure.

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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 303-D
200 Independence Avenue, SW
Washington, DC 20201

Public Affairs Office

MEDICARE NEWS

FOR IMMEDIATE RELEASE
January 28, 2004

Contact: CMS Public Affairs Office
(202) 690-6145

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 501 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

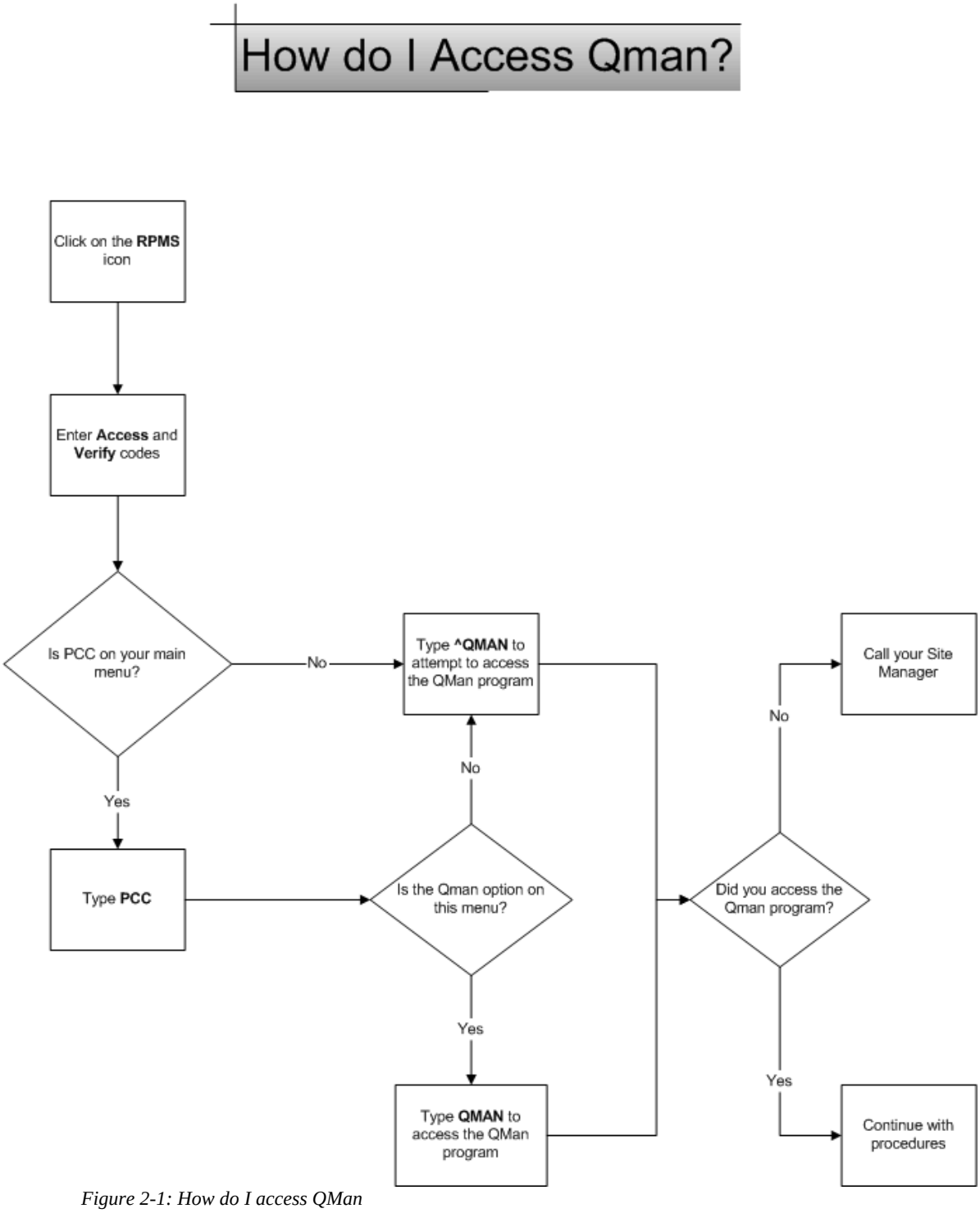

Figure 2-1: How do I access QMan

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.

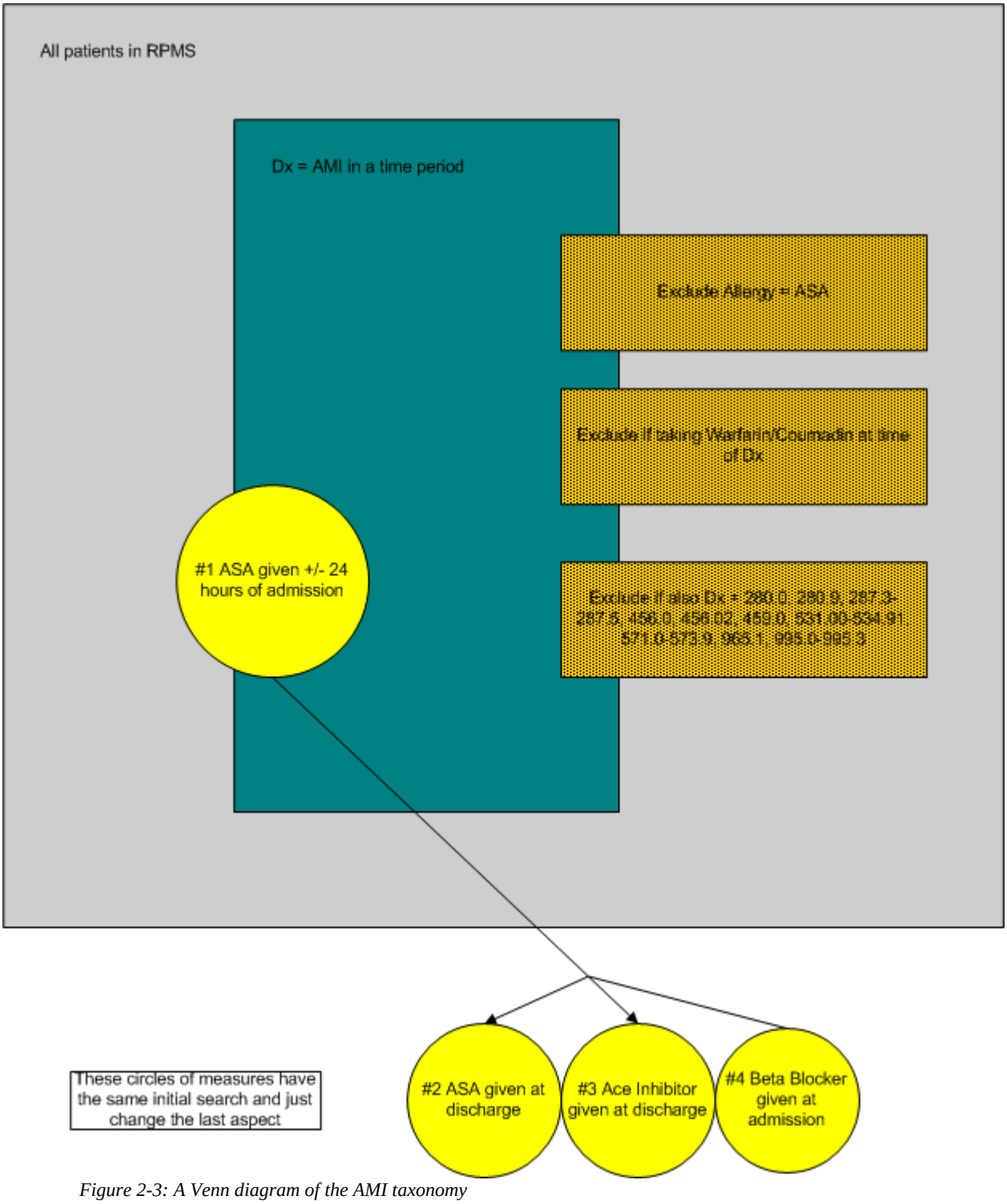

Figure 2-3: A Venn diagram of the AMI taxonomy

3.0 Adding the Pneumonia Taxonomy

This section explains how to add the pneumonia taxonomy using QMan. After accessing QMan, you 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.

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. [i]

[i] 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.

```
            *****  WELCOME TO Q-MAN: THE PCC QUERY UTILITY  *****

**************************************************************************
**       WARNING...Q-Man produces confidential patient information.      **
**   View only in private.  Keep all printed reports in a secure area.   **
**        Ask your site manager for the current Q-Man Users Guide.       **
**************************************************************************



Query utility: IHS Q-MAN Ver. 2
Current user: DEMO USER
Chart numbers will be displayed for: UNSPECIFIED SERVICE UNIT
Access to demographic data: PERMITTED
Access to clinical data: PERMITTED
Programmer privileges: YES



Enter RETURN to continue or '^' to exit: [RET]
```

Figure 3-1: Adding pneumonia as a taxonomy (steps 1-3)

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

5. 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 3-2: Adding pneumonia as a taxonomy (step 4-5)

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.

```
              *****  SEARCH CRITERIA  *****

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

```
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.

```
Enter ANOTHER DX: 038.0-038.9
  038.0     STREPTOCOCCAL SEPTICEMIA
         ...OK? Yes//   (Yes)

  038.9     SEPTICEMIA NOS
         ...OK? Yes//   (Yes)

Codes in this range =>

038.0    STREPTOCOCCAL SEPTICEMIA
038.1    STAPHYLOCOCC SEPTICEMIA
038.1    STAPHYLOCOCC SEPTICEMIA
038.10   STAPHYLOCOCCAL SEPTICEMIA,UNSP
038.11   STAPH AUREUS SEPTICEMIA
038.19   OTH STAPHYLOCOCCAL SEPTICEMIA
038.2    PNEUMOCOCCAL SEPTICEMIA
038.2    PNEUMOCOCCAL SEPTICEMIA
038.3    ANAEROBIC SEPTICEMIA
038.3    ANAEROBIC SEPTICEMIA
038.40   GRAM-NEG SEPTICEMIA NOS
038.40   GRAM-NEG SEPTICEMIA NOS
038.41   H. INFLUENAE SEPTICEMIA
038.41   H. INFLUENAE SEPTICEMIA
038.42   E COLI SEPTICEMIA
038.42   E COLI SEPTICEMIA
038.43   PSEUDOMONAS SEPTICEMIA
038.43   PSEUDOMONAS SEPTICEMIA
038.44   SERRATIA SEPTICEMIA
038.44   SERRATIA SEPTICEMIA
038.49   GRAM-NEG SEPTICEMIA NEC
038.49   GRAM-NEG SEPTICEMIA NEC
038.8    SEPTICEMIA NEC
038.8    SEPTICEMIA NEC
038.9    SEPTICEMIA NOS
038.9    SEPTICEMIA NOS

Press return to continue

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
```

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

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
COMPLICATI
ON/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
COMPLICA
TION/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.

```
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.

```
                    *****  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 3-8: Adding pneumonia as a taxonomy (step 45-46)

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.

```
...SORRY, LET ME THINK ABOUT THAT A MOMENT...

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

PATIENTS         WHITER    DISCHARGE SUMMARY
                 NUMBER
--------------------------------------------------------------------------------

patient 1      1  MAR 11,2003=>MAR 15,2003@12:00 (4 days)  GENE
patient 2      2     MAR 23,2003=>MAR 26,2003@18:55 (3 days)  GENE
patient 3         3  NOV 13,2003=>NOV 26,2003@13:15 (13 days)  GEN
patient 3      3  AUG 7,2003=>AUG 16,2003@10:40 (9 days)  GENER
patient 4      4  FEB 18,2003=>FEB 23,2003@14:00 (5 days)  GENE
patient 5      5  MAR 1,2003=>MAR 6,2003@14:00 (5 days)  GENERA
patient 5      5  FEB 25,2003=>FEB 26,2003@16:30 (1 days)  GENE
patient 6      6  FEB 4,2003=>FEB 7,2003@16:20 (3 days)  GENERA
patient 7      7  JUN 1,2003=>JUN 5,2003@14:40 (4 days)  GENERA
patient 8      8  MAR 1,2003=>MAR 8,2003@11:35 (7 days)  GENERA
patient 9      9  DEC 26,2003=>JAN 3,2004@11:00 (8 days)  GENER
patient 10     10 MAY 12,2003=>MAY 21,2003@13:45 (9 days)  GENE
patient 11     11 APR 14,2003=>APR 18,2003@11:35 (4 days)  GENE
patient 12     12 OCT 6,2003=>OCT 10,2003@14:20 (4 days)  GENER
patient 13     13 DEC 24,2003=>DEC 24,2003@15:15 (0 days)  GENE
patient 14     14 NOV 9,2003=>NOV 11,2003@19:30 (2 days)  GENER
patient 15     15 OCT 22,2003=>OCT 24,2003@05:20 (2 days)  GENE
patient 15     15 FEB 17,2003=>FEB 18,2003@16:50 (1 days)  GENE
patient 16     16 OCT 15,2003=>OCT 18,2003@18:50 (3 days)  GENE
patient 16     16 MAY 5,2003=>MAY 9,2003@15:45 (4 days)  GENERA
patient 16     16 MAR 7,2003=>MAR 10,2003@13:15 (3 days)  GENER
patient 17     17 JAN 17,2003=>JAN 24,2003@23:55 (7 days)  GENE
patient 18     18 SEP 14,2003=>SEP 17,2003@11:30 (3 days)  GENE
patient 19     19 SEP 15,2003=>SEP 17,2003@14:40 (2 days)  GENE
patient 20     20 DEC 6,2003=>DEC 12,2003@11:15 (6 days)  GENER
patient 21     21 OCT 1,2003=>OCT 2,2003@11:35 (1 days)  GENERA
patient 21     21 AUG 18,2003=>AUG 25,2003@17:40 (7 days)  GENE
patient 22     22 AUG 19,2003=>AUG 22,2003@14:05 (3 days)  GENE
patient 23     23 JUL 2,2003=>JUL 4,2003@12:30 (2 days)  GENERA
patient 24     24 OCT 2,2003=>OCT 4,2003@12:20 (2 days)  GENERA
A         A  NOV 27,2003=>NOV 28,2003@16:30 (1 days)  GENE
B         B  JUL 21,2003=>JUL 23,2003@14:20 (2 days)  GENE
C            C  DEC 21,2003=>DEC 22,2003@15:50 (1 days)  GENE
D         D  MAR 14,2003=>MAR 16,2003@11:25 (2 days)  GENE
E            E  NOV 26,2003=>NOV 28,2003@16:00 (2 days)  GENE
F         F  DEC 2,2003=>DEC 7,2003@13:00 (5 days)  GENERA
G         G  MAR 13,2003=>MAR 15,2003@09:30 (2 days)  GENE
H         H  FEB 5,2003=>FEB 7,2003@14:40 (2 days)  GENERA
I            I  SEP 1,2003=>SEP 2,2003@18:45 (1 days)  GENERA
J         J  JUL 29,2003=>AUG 1,2003@13:40 (3 days)  GENER
K         K  NOV 10,2003=>NOV 17,2003@11:45 (7 days)  GENE
L         L  APR 23,2003=>APR 24,2003@17:22 (1 days)  GENE
M         M  SEP 15,2003=>SEP 20,2003@13:00 (5 days)  GENE
N         N  JAN 12,2003=>JAN 14,2003@11:00 (2 days)  GENE
O         O  DEC 22,2003=>DEC 31,2003@15:30 (9 days)  GENE
P         P  APR 23,2003=>APR 27,2003@10:05 (4 days)  GENE
Q         Q  MAR 22,2003=>MAR 25,2003@12:15 (3 days)  GENE
Q         Q  FEB 5,2003=>FEB 8,2003@04:00 (3 days)  GENERA
R         R  AUG 27,2003=>SEP 2,2003@14:10 (6 days)  GENER
S         S  MAY 8,2003=>MAY 10,2003@10:35 (2 days)  GENER
T         T  SEP 3,2003=>SEP 4,2003@10:05 (1 days)  GENERA
```

```
U        U  MAR 27,2003=>APR 2,2003@11:50 (6 days)  GENER
V        V  OCT 4,2003=>OCT 6,2003@17:45 (2 days)  GENERA
W        W  JUN 9,2003=>JUN 12,2003@16:50 (3 days)  GENER
X        X  OCT 14,2003=>OCT 15,2003@16:40 (1 days)  GENE
Y        Y  NOV 25,2003=>NOV 26,2003@13:45 (1 days)  GENE
Z        Z  MAR 6,2003=>MAR 12,2003@11:00 (6 days)  GENER


Total: 319
```

Figure 3-9: Adding pneumonia as a taxonomy (step 47-49)

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.

Step	Instruction	√
1. .	Select Search PCC Database	
2.	Search Subject: PATIENT	
3.	Attribute: Age	
4.	Condition: >	
5.	Age: 18	
6.	Attribute: ADMISSION TO HOSPITAL	
7.	Condition: BETWEEN DATES	
8.	Exact Starting Date: This date is the beginning date for the time period that you want to look at charts.	
9.	Exact Ending Date: This date is the ending date for the time period that you want to look at charts.	
10.	Next Condition: DX	
11.	Diagnosis Values Obtained on the Same Visit?: YES	
12.	Enter DX Values: 481 482.0-482.9 483.0-483.8 485	

Step	Instruction	√
	486 487 038.0-38.9 518.81 518.83 518.84	
13.	Save this DX Group for Future Use	
14.	Group Name: Enter an appropriate group name, e.g., JD CMS Pneumonia Dx	
15.	Taxonomy Brief Description: Enter a brief description, e.g., PNEUMONIA CODES FOR CMS	

3.4 Flowchart

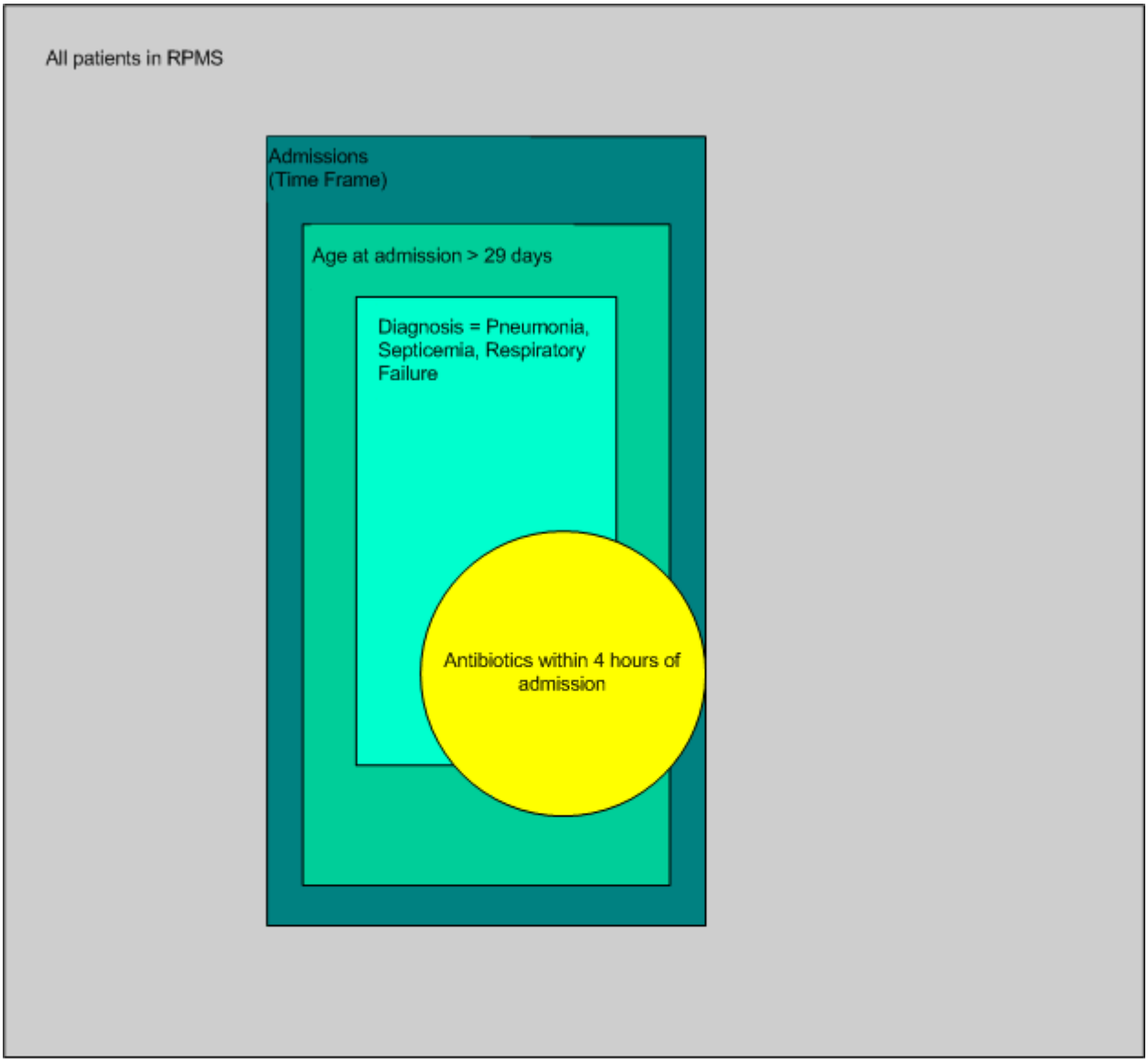

Figure 3-10: Pneumonia taxonomy flowchart

4.0 Adding the AMI Taxonomy

This section explains how to add the Acute Myocardial Infarction (AMI) taxonomy using QMan. After accessing QMan, you 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.

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).

```
            *****  WELCOME TO Q-MAN: THE PCC QUERY UTILITY  *****

*****************************************************************************
*
**         WARNING...Q-Man produces confidential patient information.
**
**     View only in private.  Keep all printed reports in a secure area.
**
**          Ask your site manager for the current Q-Man Users Guide.
**
*****************************************************************************
*

Query utility: IHS Q-MAN Ver. 2.0
Current user: DEMO USER
Chart numbers will be displayed for: UNSPECIFIED HOSPITAL
Access to demographic data: PERMITTED
Access to clinical data: PERMITTED
Programmer privileges: YES
```

Figure 4-1: Adding AMI as a Taxonomy (step 1 & 2)

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

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

###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.

```
                    *****  SEARCH CRITERIA  *****

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": BETWE  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

     1   410.0       AMI ANTEROLATERAL WALL
     2   410.00       AMI ANTEROLAT WALL,EPIS UNSPEC
     3   410.01        AMI ANTEROLAT WALL,INIT CARE
     4   410.02        AMI ANTEROLAT WALL,SUBSEQ CARE
CHOOSE 1-4: 1  410.0     AMI ANTEROLATERAL WALL
  410.92     AMI NOS,SUBSEQ CARE
         ...OK? Yes//   Yes


Codes in this range =>

410.0    AMI ANTEROLATERAL WALL
410.00   AMI ANTEROLAT WALL,EPIS UNSPEC
410.00   AMI ANTEROLAT WALL,EPIS UNSPEC
410.01   AMI ANTEROLAT WALL,INIT CARE
410.02   AMI ANTEROLAT WALL,SUBSEQ CARE
410.1    AMI ANTERIOR WALL NEC
410.10   AMI ANTERIOR WALL,EPIS UNSPEC
410.10   AMI ANTERIOR WALL,EPIS UNSPEC
410.11   AMI ANTERIOR WALL,INIT CARE
410.12   AMI ANTERIOR WALL,SUBSEQ CARE
410.2    AMI INFEROLATERAL WALL
410.20   AMI INFEROLAT WALL,EPIS UNSPEC
410.20   AMI INFEROLAT WALL,EPIS UNSPEC
410.21   AMI INFEROLAT,INIT CARE
410.22   AMI INFEROLAT WALL,SUBSEQ CARE
410.3    AMI INFEROPOSTERIOR WALL
410.30   AMI INFEROPOST WALL,EPI UNSPEC
410.30   AMI INFEROPOST WALL,EPI UNSPEC
410.31   AMI INFEROPOST WALL,INIT CARE
410.32   AMI INFEROPOS WALL,SUBSEQ CARE
410.4    AMI INFERIOR WALL NEC
410.40   AMI INFERIOR WALL,EPIS UNSPEC
410.40   AMI INFERIOR WALL,EPIS UNSPEC
410.41   AMI INFERIOR WALL,INIT CARE
410.42   AMI INFERIOR WALL,SUBSEQ CARE
410.5    AMI LATERAL WALL NEC
410.50   AMI LATERAL WALL,EPIS UNSPEC
410.50   AMI LATERAL WALL,EPIS UNSPEC
410.51   AMI LATERAL WALL,INIT CARE
```

```
410.52   AMI LATERAL WALL,SUBSEQ CARE
410.6    TRUE POSTERIOR INFARCT
410.60   AMI TRUE POST WALL,EPIS UNSPEC
410.60   AMI TRUE POST WALL,EPIS UNSPEC
410.61   AMI TRUE POST WALL,INIT CARE
410.62   AMI TRUE POST WALL,SUBSEQ CARE
410.7    SUBENDOCARDIAL INFARCT
410.70   AMI SUBENDOCARDIAL,EPIS UNSPEC
410.70   AMI SUBENDOCARDIAL,EPIS UNSPEC
410.71   AMI SUBENDOCARDIAL,INIT CARE
410.72   AMI SUBENDOCARDIAL,SUBSEQ CARE
410.8    MYOCARDIAL INFARCT NEC
410.80   AMI NEC,EPIS UNSPEC
410.80   AMI NEC,EPIS UNSPEC
410.81   AMI NEC,INIT CARE
410.82   AMI NEC,SUBSEQ CARE
410.9    MYOCARDIAL INFARCT NOS
410.90   AMI NOS,EPIS UNSPEC
410.90   AMI NOS,EPIS UNSPEC
410.91   AMI NOS,INIT CARE
410.92   AMI NOS,SUBSEQ CARE

Press return to continue


Code Range(s) Selected So Far =>

1)  410.0 - 410.92

Enter ANOTHER DX: [RET]

Want to save this DX group for future use? No//   (No)
```

Figure 4-3: Adding AMI as a Taxonomy (steps 5-17)

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 4-4Adding 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

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 '^' 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.


PATIENTS          WHITER   DISCHARGE SUMMARY
                  NUMBER
------------------------------------------------------------------------------

AAAA, aaaaa    1111     OCT 4,2003=>OCT 11,2003@12:50 (7 days)  GENER
BBBB, bbbbb    2222     AUG 14,2003=>AUG 15,2003@10:20 (1 days)  GENE
CCCC, ccccc    3333     JAN 20,2003=>JAN 23,2003@00:01 (3 days)  GENE
Total: 3
```

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.

Step	Instruction	√
1.	Select Search PCC Database	
2.	Search Subject: PATIENT	
3.	Attribute: ADMISSION TO HOSPITAL	
4.	Condition: BETWEEN DATES	
5.	Exact Starting Date: This date is the beginning date for the time period that you want to look at charts.	
6.	Exact Ending Date: This date is the ending date for the time period that you want to look at charts.	
7.	Next Condition: DX	

Step	Instruction	√
8.	Diagnosis Values Obtained on the Same Visit?: YES	
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

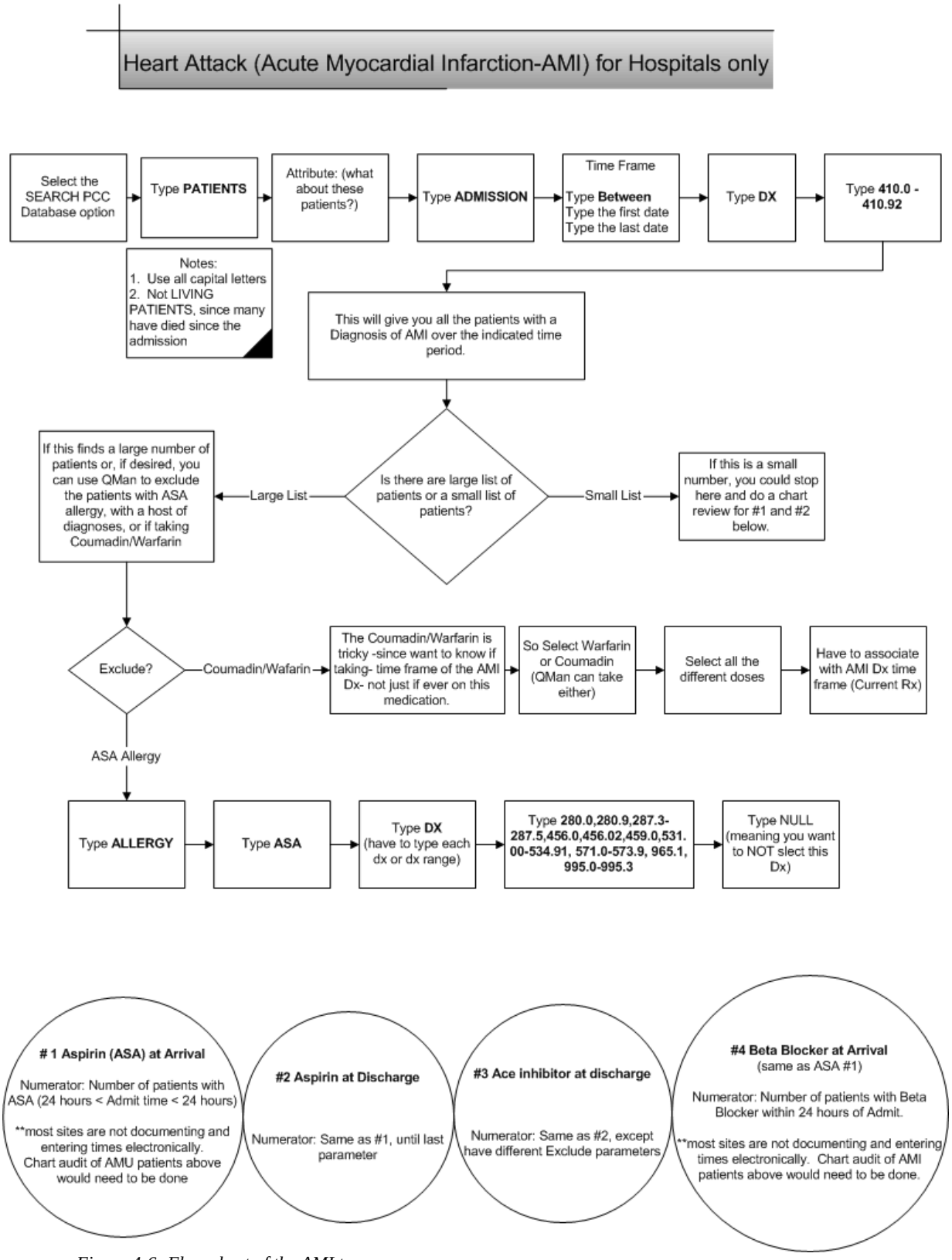

Figure 4-6: Flow chart of the AMI taxonomy

5.0 Adding the Heart Failure Taxonomy

This section explains how to add the Heart Failure taxonomy using QMan. After accessing QMan, you 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=

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. [ii]

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

```
            *****  WELCOME TO Q-MAN: THE PCC QUERY UTILITY  *****

*****************************************************************************
*
**         WARNING...Q-Man produces confidential patient information.
**
**     View only in private.  Keep all printed reports in a secure area.
**
**           Ask your site manager for the current Q-Man Users Guide.
**
*****************************************************************************
*

Query utility: IHS Q-MAN Ver. 2.0
Current user: DEMO USER
Chart numbers will be displayed for: UNSPECIFIED HOSPITAL
Access to demographic data: PERMITTED
Access to clinical data: PERMITTED
Programmer privileges: YES
```

Figure 5-1: Adding Hearth Failure as a Taxonomy (step 1 & 2)

3. The QMan Options screen displays (see Figure 5-2).

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 5-2: Adding Heart Failure as a Taxonomy (step 3 & 4)

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

```
                    *****  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.

```
Enter ANOTHER DX:

Want to save this DX group for future use? No//

   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

...HMMM, JUST A MOMENT PLEASE...
```

Figure 5-4: Adding Heart Failure as a Taxonomy (steps 14-20)

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.

PATIENTS          WHITER DISCHARGE SUMMARY
                  NUMBER
------------------------------------------------------------------------------

Patient 1           8645   JUN 24,2003=>JUN 29,2003@15:20 (5 days)  GENE
Patient 2       8959   MAY 12,2003=>MAY 21,2003@13:45 (9 days)  GENE
Patient 3       5932   APR 14,2003=>APR 18,2003@11:35 (4 days)  GENE
Patient 4       5742   FEB 17,2003=>FEB 18,2003@16:50 (1 days)  GENE
Patient 5       8928   JUL 1,2003=>JUL 2,2003@15:15 (1 days)  GENERA
Patient 6       27527  SEP 7,2003=>SEP 11,2003@11:00 (4 days)  GENER
Patient 7       5197   DEC 17,2003=>DEC 20,2003@14:10 (3 days)  GENE
Patient 8       5906   JUL 23,2003=>JUL 24,2003@14:00 (1 days)  GENE
Patient 9       6428   SEP 7,2003=>SEP 11,2003@11:00 (4 days)  GENER
Patient 9       6428   AUG 6,2003=>AUG 8,2003@12:20 (2 days)  GENERA
Patient 10      6611   OCT 21,2003=>OCT 25,2003@10:35 (4 days)  GENE
Patient 11      7070   AUG 11,2003=>AUG 20,2003@17:00 (9 days)  GENE
Patient 11      7070   JUL 22,2003=>AUG 5,2003@17:10 (14 days)  GENE
Patient 11      7070   JUN 26,2003=>JUL 14,2003@13:45 (18 days)  GEN
Patient 12      7421   NOV 20,2003=>NOV 22,2003@12:00 (2 days)  GENE
Patient 12      7421   MAY 4,2003=>MAY 7,2003@14:00 (3 days)  GENERA
Patient 12      7421   APR 22,2003=>APR 27,2003@12:50 (5 days)  GENE
Patient 13      7698   APR 15,2003=>APR 17,2003@19:45 (2 days)  GENE
Patient 14      8175   NOV 1,2003=>NOV 13,2003@14:00 (12 days)  GENE
Patient 15      9157   AUG 22,2003=>AUG 22,2003@15:20 (0 days)  GENE
Patient 15      9157   MAR 7,2003=>MAR 10,2003@17:10 (3 days)  GENER
Patient 16      8886   OCT 7,2003=>OCT 17,2003@13:05 (10 days)  GENE
Patient 16      8886   JUL 20,2003=>JUL 22,2003@13:05 (2 days)  GENE
Patient 16      8886   JUN 11,2003=>JUN 17,2003@13:00 (6 days)  GENE
Patient 16      8886   MAY 23,2003=>MAY 26,2003@10:55 (3 days)  GENE
Patient 16      8886   APR 29,2003=>MAY 1,2003@12:00 (2 days)  GENER
Patient 17      10176  APR 4,2003=>APR 7,2003@16:00 (3 days)  GENERA
Patient 18      21025  FEB 27,2003=>MAR 6,2003@16:20 (7 days)  GENER
Patient 19      23118  AUG 26,2003=>SEP 4,2003@18:05 (9 days)  GENER
Patient 20      24662  DEC 13,2003=>DEC 20,2003@12:15 (7 days)  GENE
Patient 21      34394  MAY 7,2003=>MAY 10,2003@11:50 (3 days)  GENER
Patient 22      42980  APR 3,2003=>APR 6,2003@11:05 (3 days)  GENERA

Total: 32
```

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

5.3 Checklist

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

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/

This Web site contains tools and materials from the Medical Review of North Carolina: http://www.mrnc.org/orders/orders.aspx?qrystate=NC

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 fro m 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

Hospital Participation Requirements (overview)

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 1886(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.qnetexchange.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.

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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 (RHQDAPU). 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 RHQDAPU 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: _____

Hospital Name: _____ Medicare Provider Number: _____

Street Address: _____

City, State, Zip Code: _____

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

Title: _____ Signature Date: _____

Signature: _____ CEO/Designee Initials: _____

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

Name (please print): _____

Title: _____ E-mail: _____

Telephone: _____ Fax: _____

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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: _____

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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

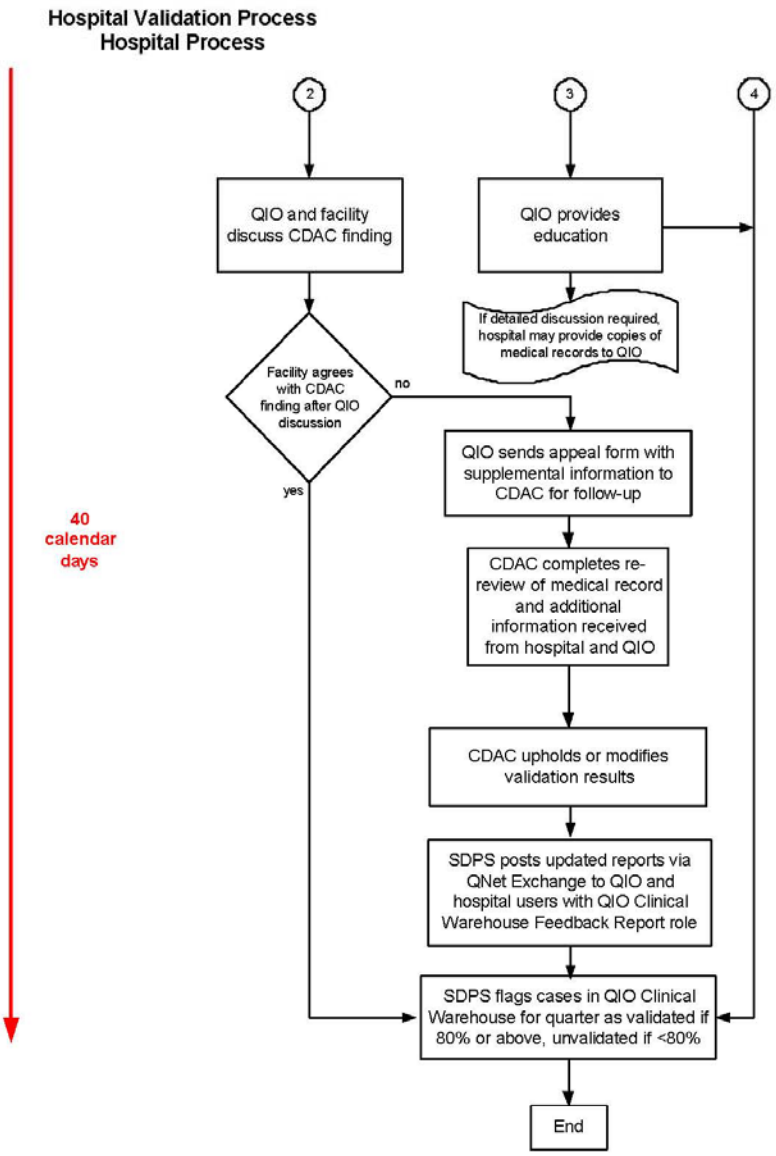
www.cms.hhs.gov
- Reporting Hospital Quality Data for Annual Payment Update
- Hospital Quality Initiative Information

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

www.qnetexchange.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.

Released 03/26/04


Hospital Validation Process
Hospital Process
2
3
4
QIO and facility discuss CDAC finding
QIO provides education
If detailed discussion required, hospital may provide copies of medical records to QIO
Facility agrees with CDAC finding after QIO discussion
no
yes
QIO sends appeal form with supplemental information to CDAC for follow-up
40 calendar days
CDAC completes re-review of medical record and additional information received from hospital and QIO
CDAC upholds or modifies validation results
SDPS posts updated reports via QNet Exchange to QIO and hospital users with QIO Clinical Warehouse Feedback Report role
SDPS flags cases in QIO Clinical Warehouse for quarter as validated if 80% or above, unvalidated if <80%
End

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:

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

Principal diagnosis ICD-9-CM code (from acute care hospital discharges, including CAH) of:
038.0-038.9 (septicemia) **OR**
518.81 (acute respiratory failure) **OR**
518.84 (acute and chronic respiratory failure)
AND
Secondary diagnosis code of pneumonia (See ICD-9-CM codes listed above)

EXCLUDE:
None

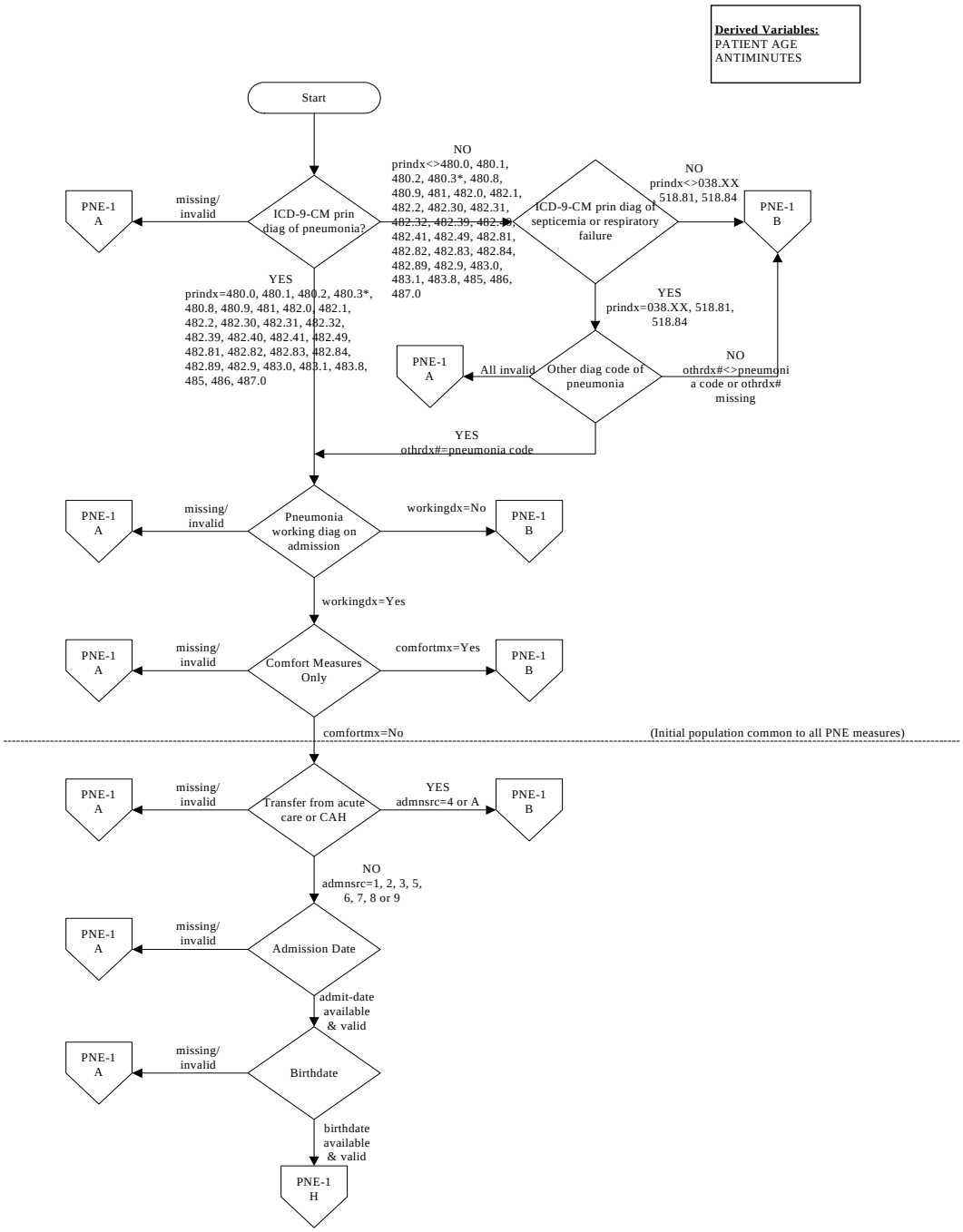
[iii] This ICD-9-CM diagnosis code is effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.

6.5 PNE Analytic Flowcharts with Values

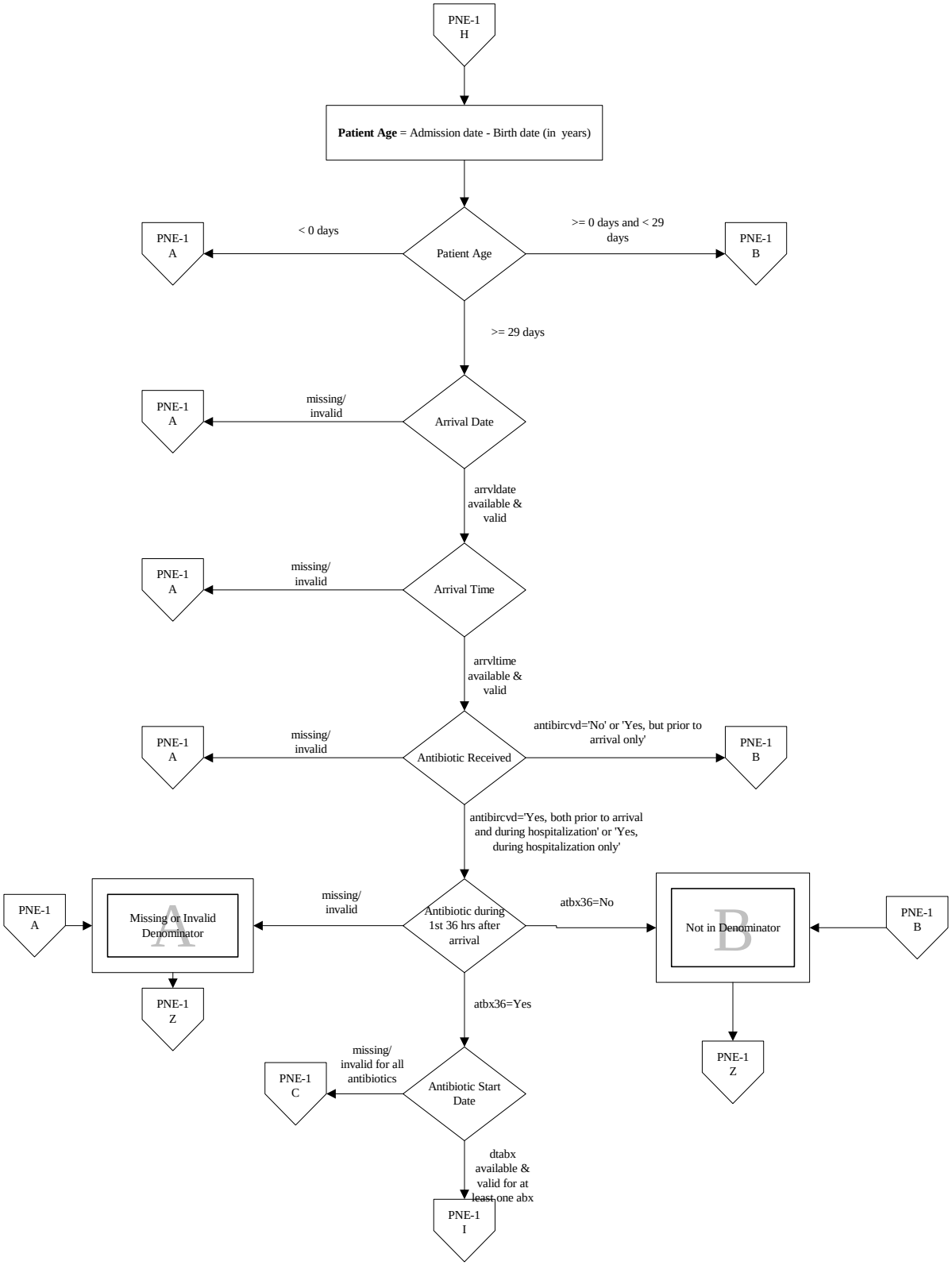
6.5.1 PNE-1: Initial Antibiotic Received Within 4 Hours of Hospital Arrival (CMS Only)

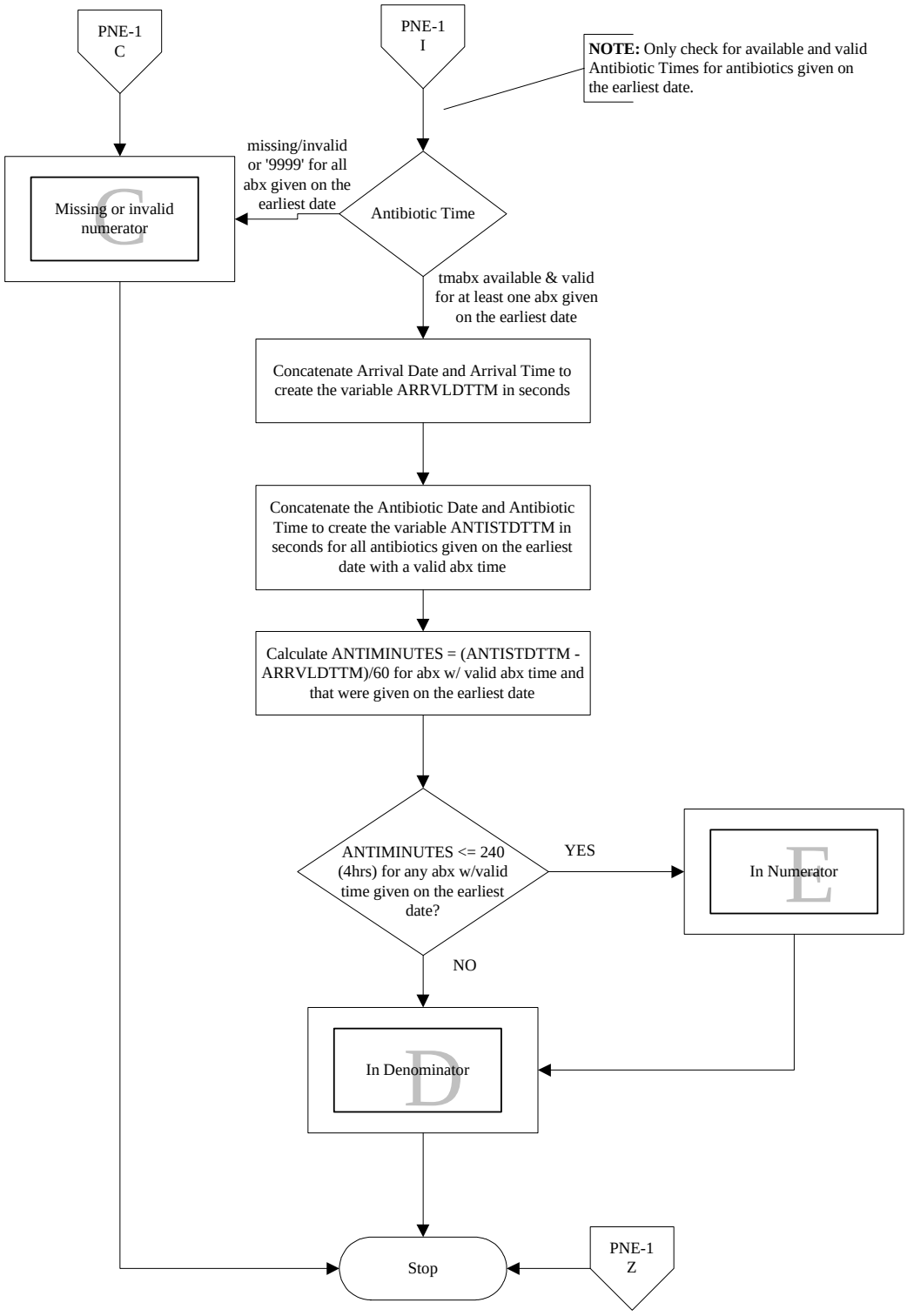
Numerator – Number of pneumonia patients who received their first dose of antibiotics within 4 hours after arrival at the hospital.

Denominator – All pneumonia patients with a working diagnosis of pneumonia on admission and who were not receiving comfort care measures only.



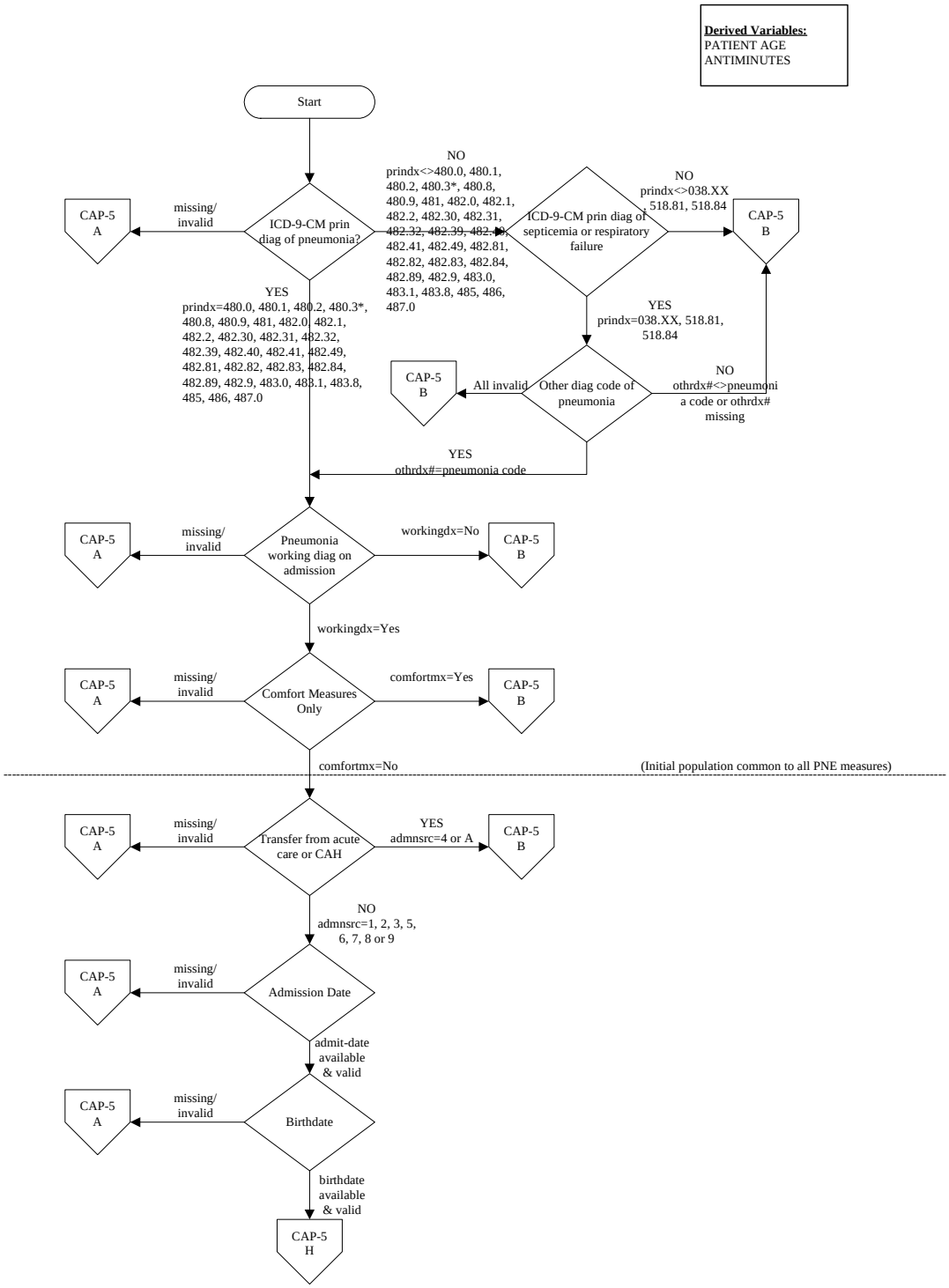
* The ICD-9-CM code of 480.3 (Pneumonia due to SARS-associated coronavirus) will be effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.


PNE-1 H
Patient Age = Admission date - Birth date (in years)
Patient Age
< 0 days
PNE-1 A
>= 0 days and < 29 days
PNE-1 B
>= 29 days
Arrival Date
missing/ invalid
PNE-1 A
arrvldate available & valid
Arrival Time
missing/ invalid
PNE-1 A
arrvltime available & valid
Antibiotic Received
missing/ invalid
PNE-1 A
antibircvd='No' or 'Yes, but prior to arrival only'
PNE-1 B
antibircvd='Yes, both prior to arrival and during hospitalization' or 'Yes, during hospitalization only'
Antibiotic during 1st 36 hrs after arrival
missing/ invalid
PNE-1 A
Missing or Invalid Denominator
A
PNE-1 Z
atbx36=No
Not in Denominator
B
PNE-1 B
PNE-1 Z
atbx36=Yes
Antibiotic Start Date
missing/ invalid for all antibiotics
PNE-1 C
dtabx available & valid for at least one abx
PNE-1 I

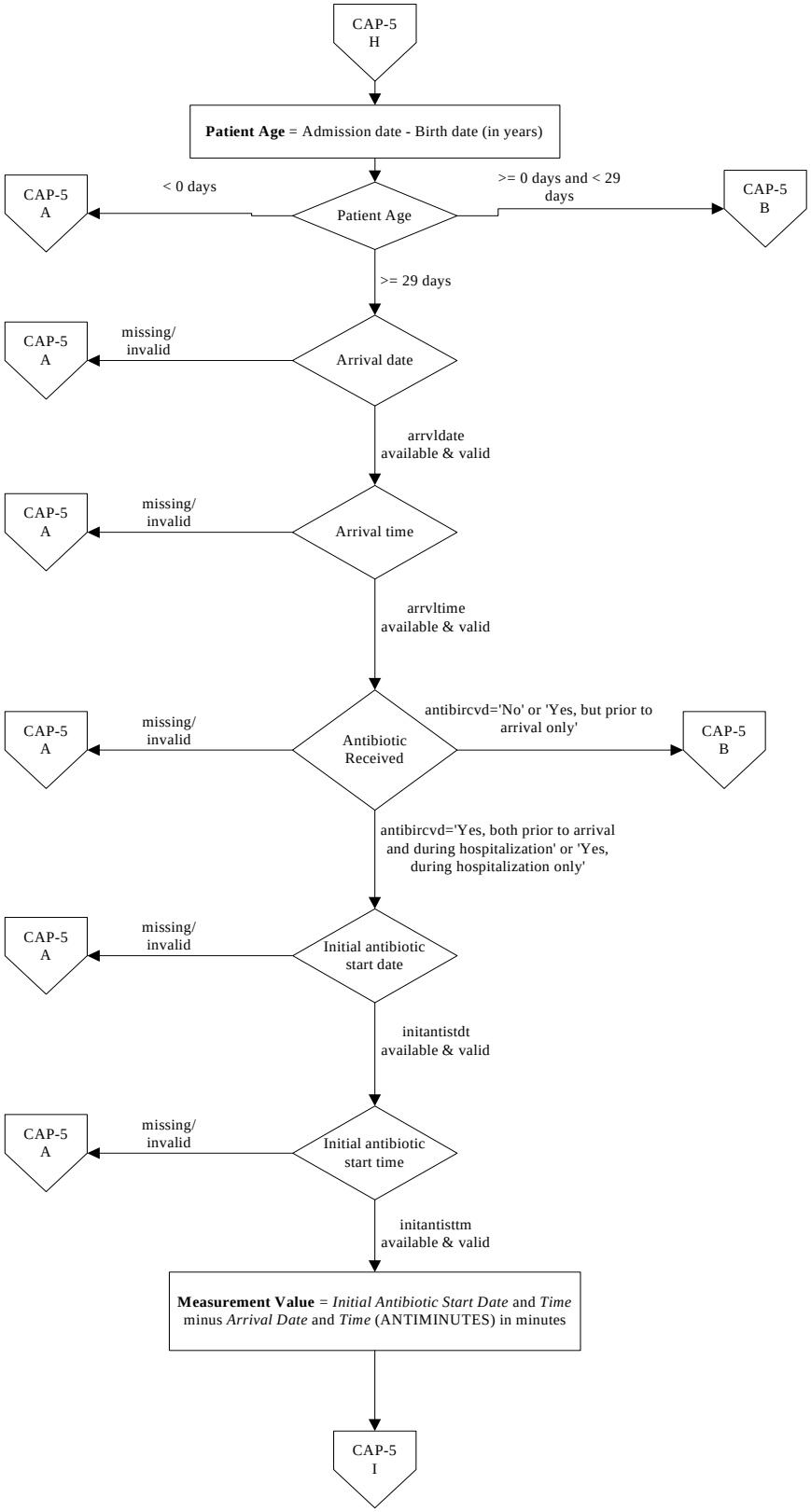

PNE-1
C
PNE-1
I
NOTE: Only check for available and valid Antibiotic Times for antibiotics given on the earliest date.
missing/invalid or '9999' for all abx given on the earliest date
Antibiotic Time
C
Missing or invalid numerator
tmabx available & valid for at least one abx given on the earliest date
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?
YES
E
In Numerator
NO
D
In Denominator
Stop
PNE-1
Z

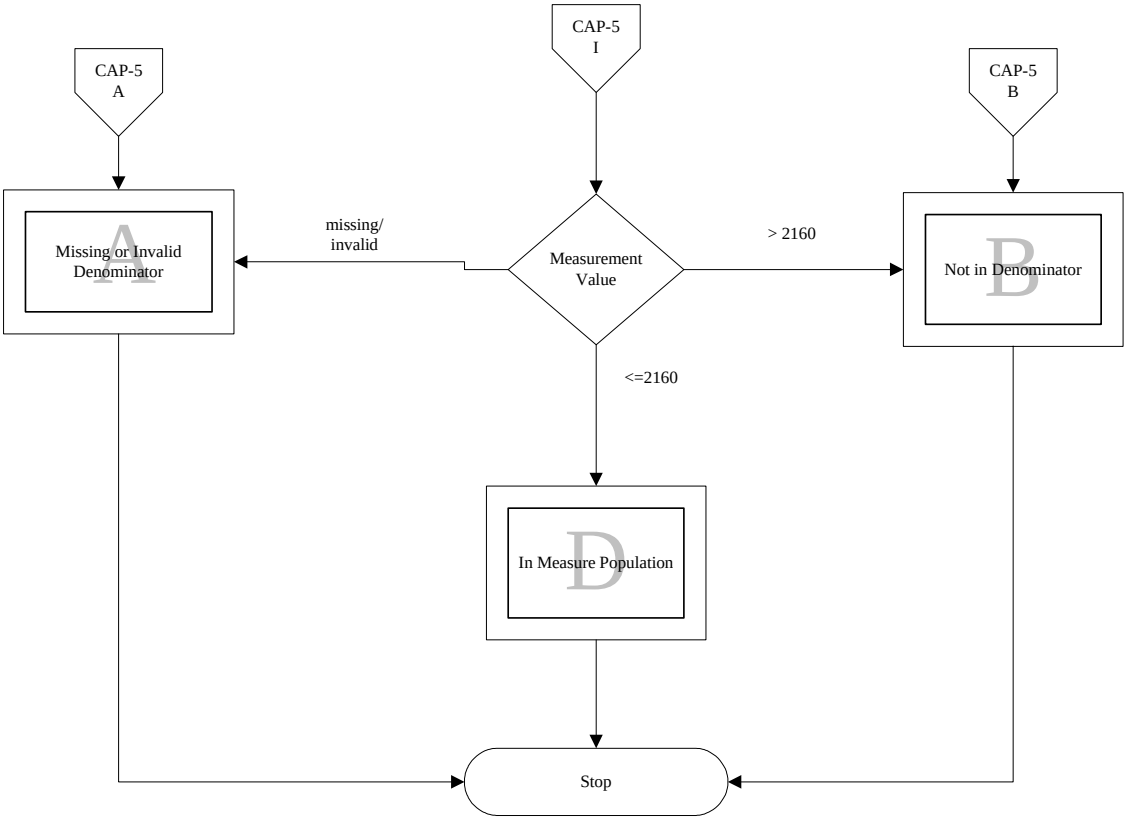
6.5.2 CAP-5: Median Time to First Antibiotic Dose (JCAHO Only)

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.

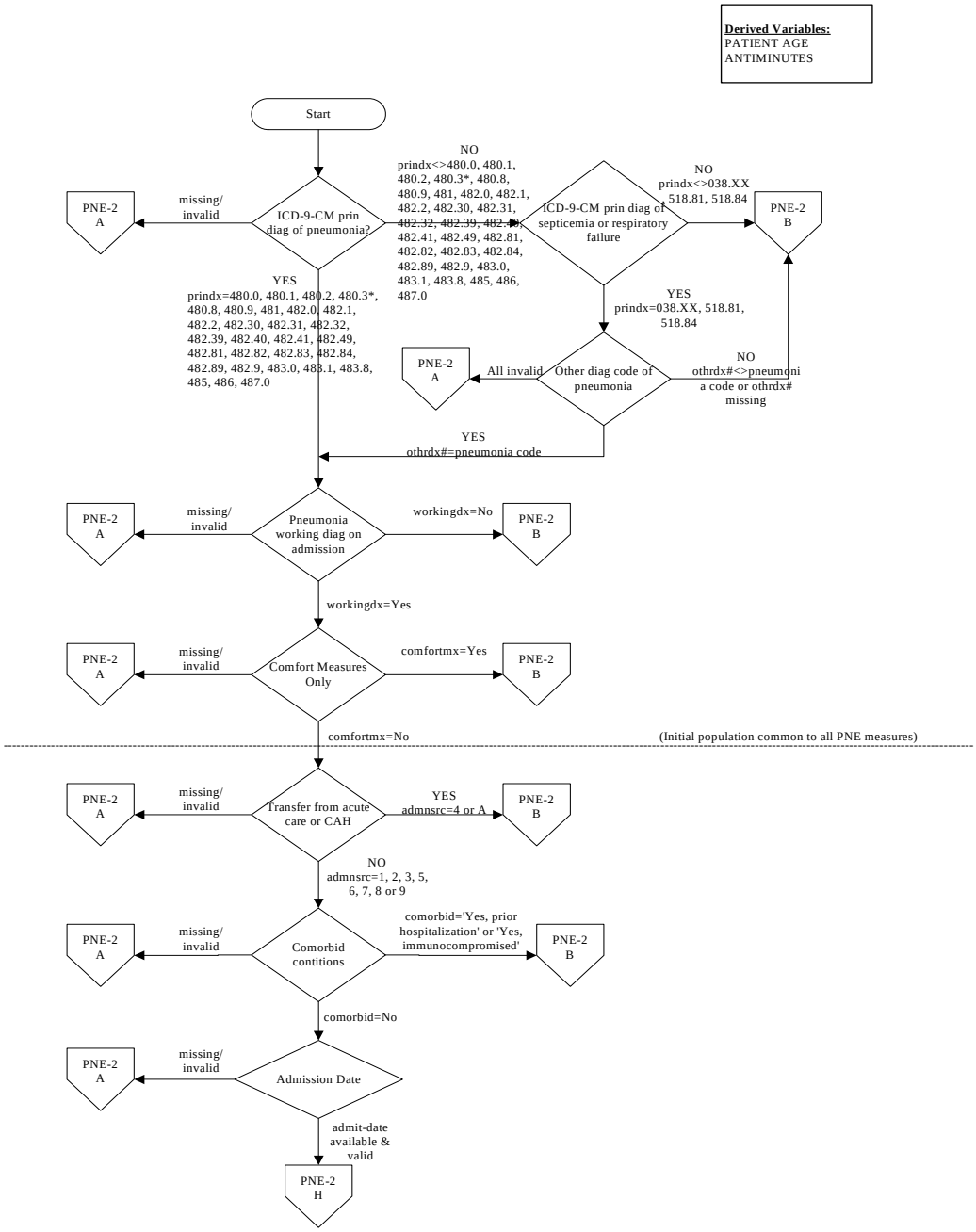

CAP-5 H
Patient Age = Admission date - Birth date (in years)
< 0 days
CAP-5 A
Patient Age
>= 0 days and < 29 days
CAP-5 B
>= 29 days
missing/ invalid
CAP-5 A
Arrival date
arrvldate available & valid
missing/ invalid
CAP-5 A
Arrival time
arrvltime available & valid
missing/ invalid
CAP-5 A
Antibiotic Received
antibircvd='No' or 'Yes, but prior to arrival only'
CAP-5 B
antibircvd='Yes, both prior to arrival and during hospitalization' or 'Yes, during hospitalization only'
missing/ invalid
CAP-5 A
Initial antibiotic start date
initantistdt available & valid
missing/ invalid
CAP-5 A
Initial antibiotic start time
initantisttm available & valid
Measurement Value = *Initial Antibiotic Start Date* and *Time* minus *Arrival Date* and *Time* (ANTIMINUTES) in minutes
CAP-5 I



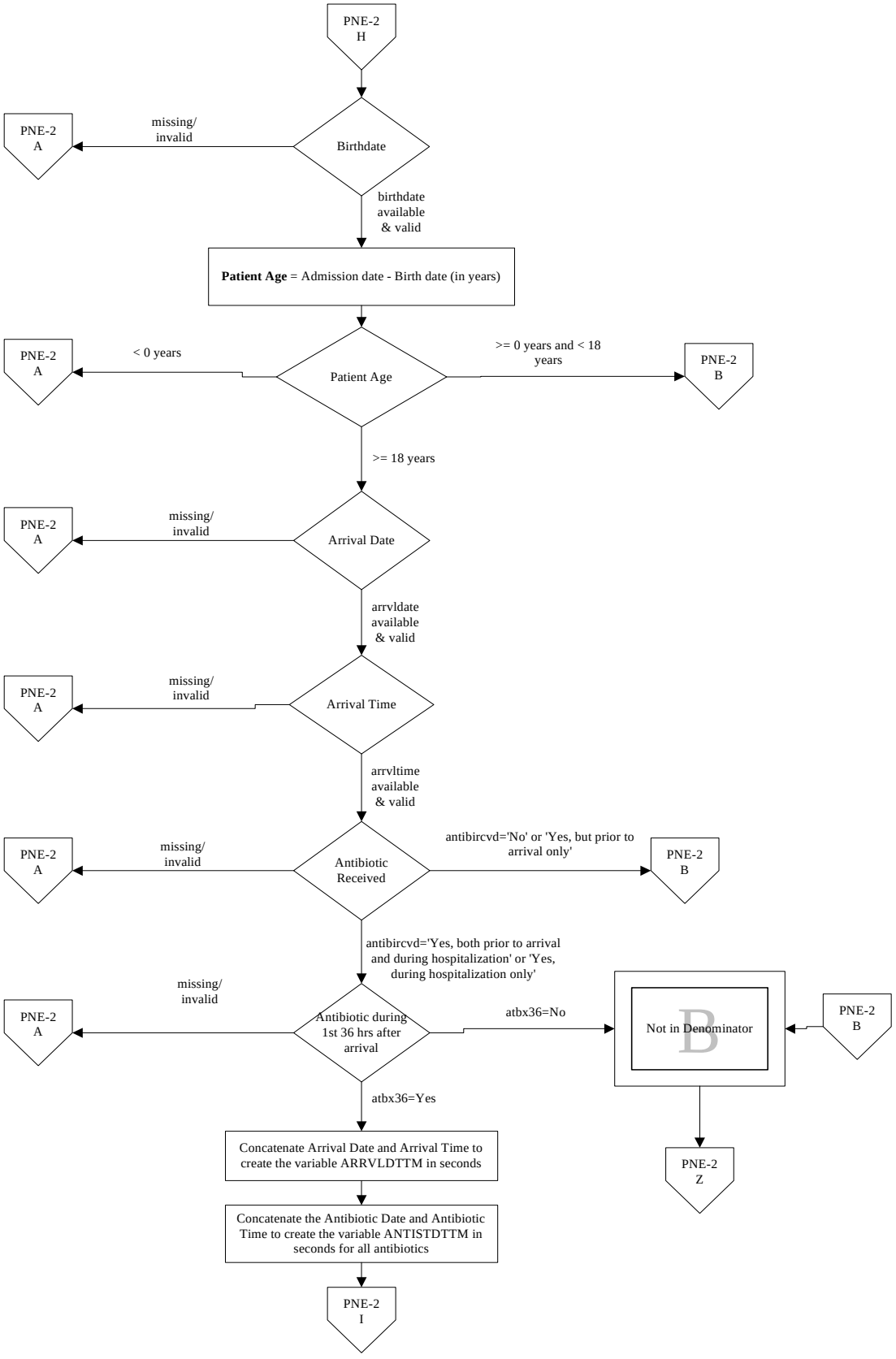
6.5.3 PNE-2: Initial Antibiotic Selection for Community-Acquired Pneumonia (CAP) in Immunocompetent Patients (CMS Only)

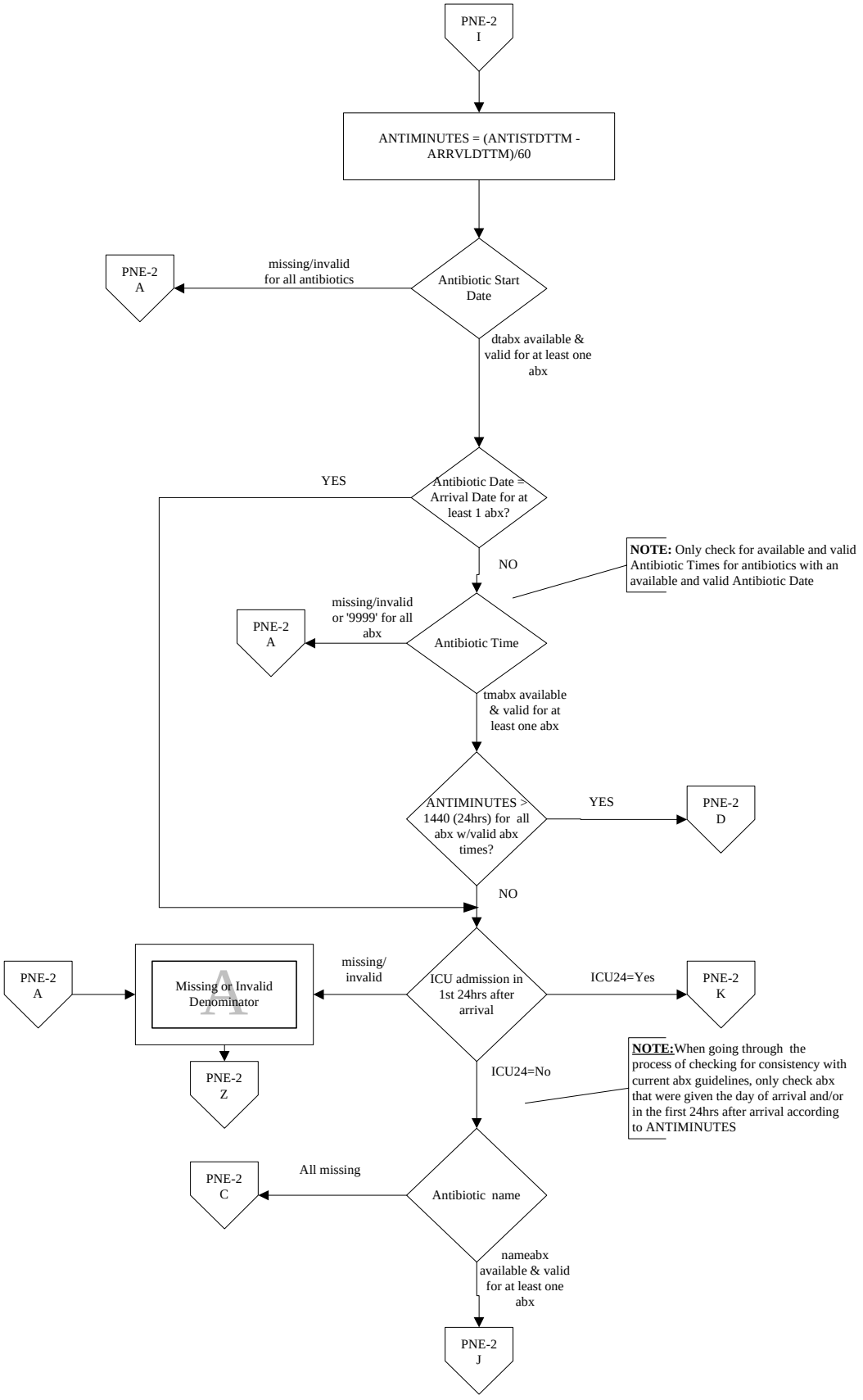
Numerator – Number of pneumonia patients greater than or equal to 18 years of age who received an initial antibiotic regimen consistent with current guidelines during the first 24 hours of their hospitalization.

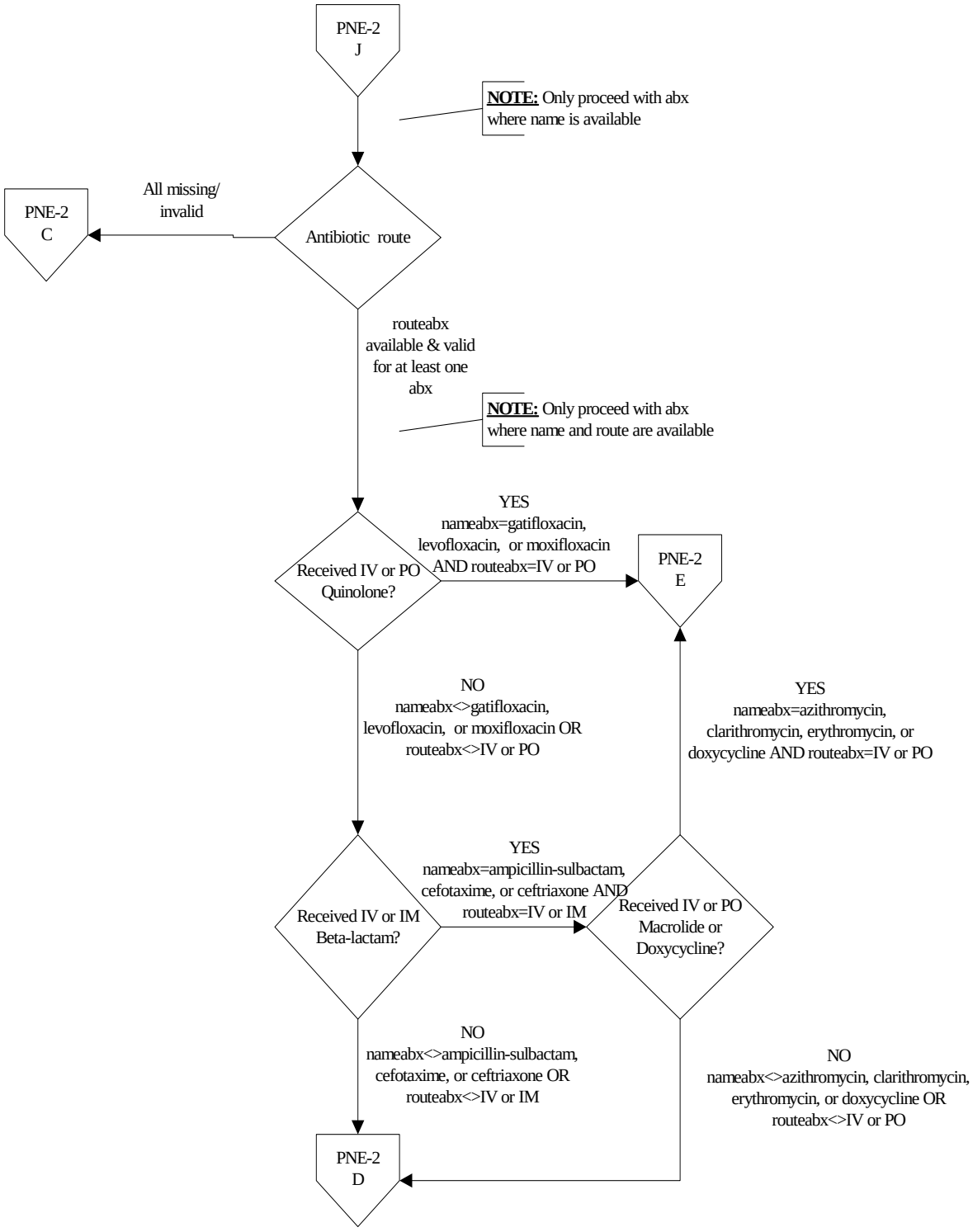
Denominator – All pneumonia patients with a working diagnosis of pneumonia on admission and who were not receiving comfort care measures only.

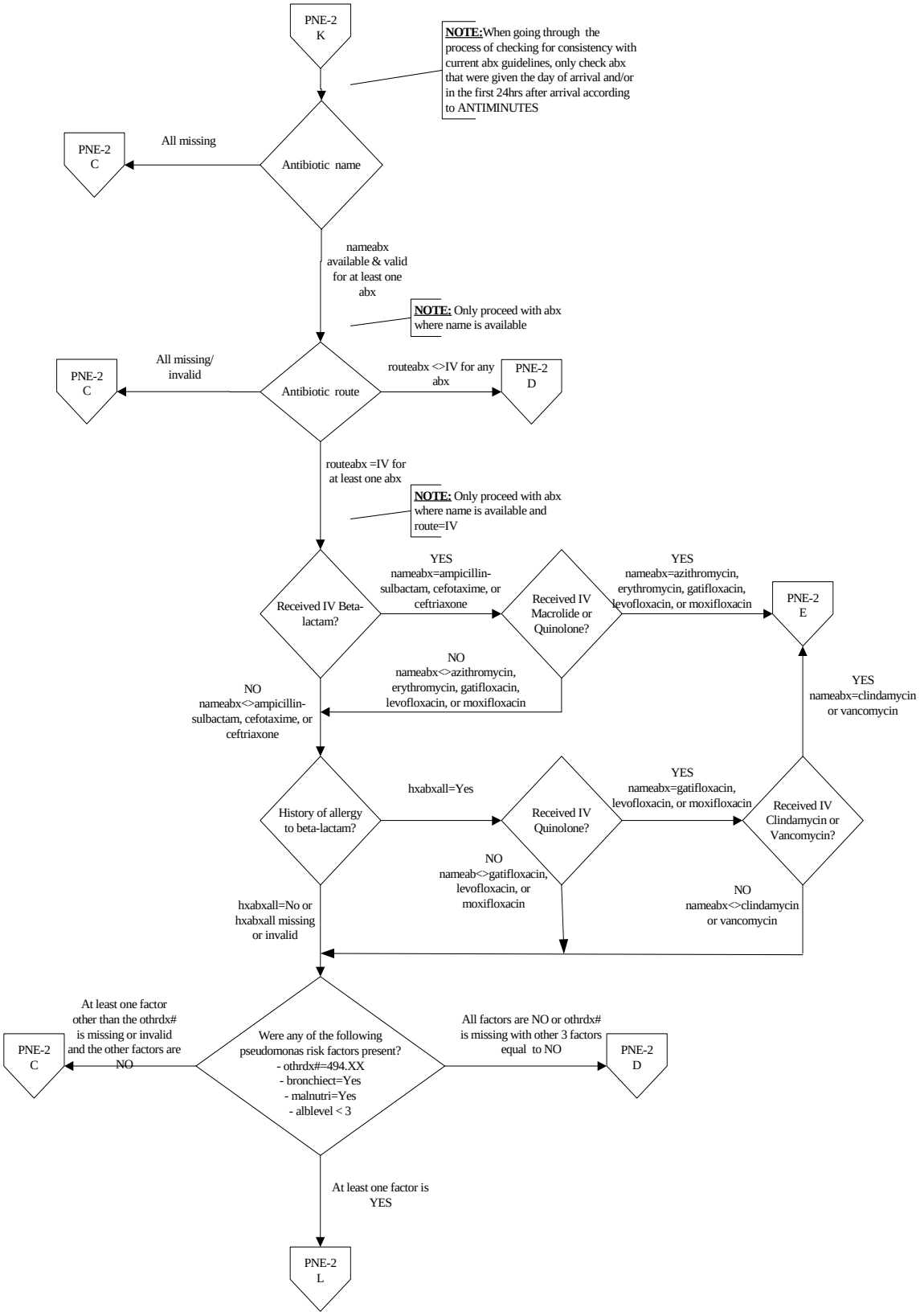


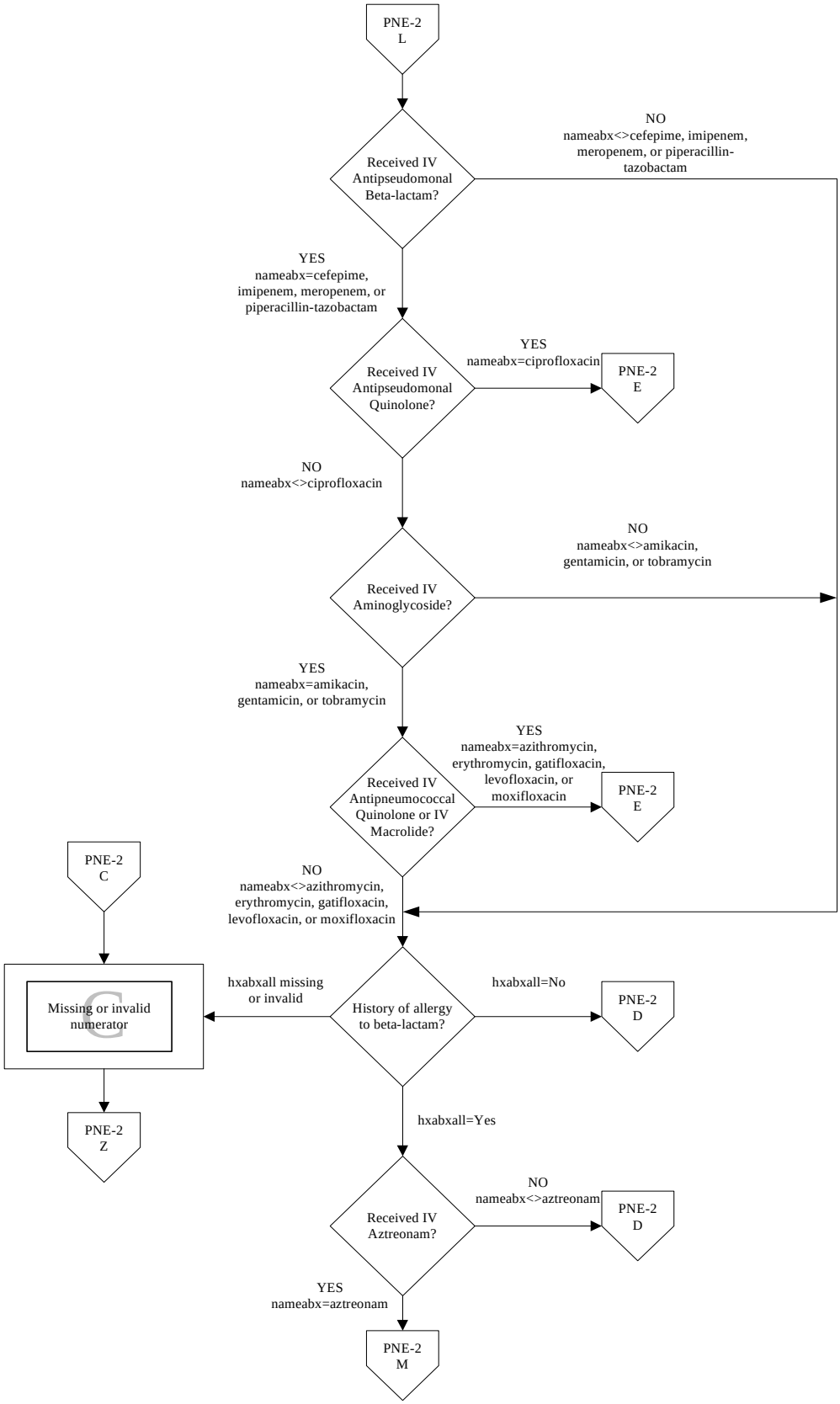
* The ICD-9-CM code of 480.3 (Pneumonia due to SARS-associated coronavirus) will be effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.

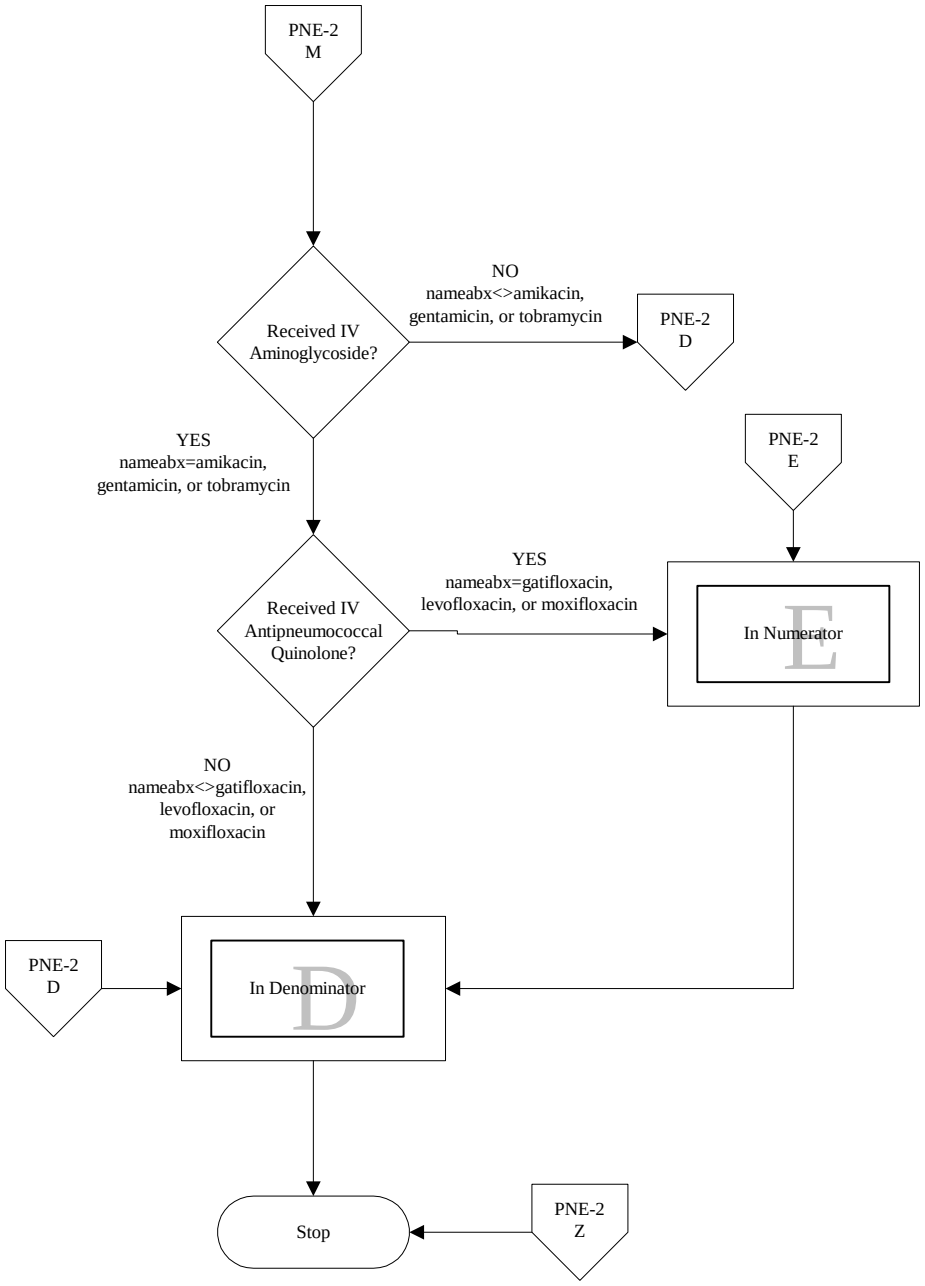

PNE-2 H
Birthdate
missing/ invalid
PNE-2 A
birthdate available & valid
Patient Age = Admission date - Birth date (in years)
Patient Age
< 0 years
>= 0 years and < 18 years
PNE-2 B
>= 18 years
Arrival Date
arrvldate available & valid
Arrival Time
arrvltime available & valid
Antibiotic Received
antibircvd='No' or 'Yes, but prior to arrival only'
antibircvd='Yes, both prior to arrival and during hospitalization' or 'Yes, during hospitalization only'
Antibiotic during 1st 36 hrs after arrival
atbx36=No
Not in Denominator
B
atbx36=Yes
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
PNE-2 I
PNE-2 Z


PNE-2 I
ANTIMINUTES = (ANTISTDTTM - ARRVLDTTM)/60
Antibiotic Start Date
missing/invalid for all antibiotics
PNE-2 A
dtabx available & valid for at least one abx
Antibiotic Date = Arrival Date for at least 1 abx?
YES
NO
NOTE: Only check for available and valid Antibiotic Times for antibiotics with an available and valid Antibiotic Date
Antibiotic Time
missing/invalid or '9999' for all abx
PNE-2 A
tmabx available & valid for at least one abx
ANTIMINUTES > 1440 (24hrs) for all abx w/valid abx times?
YES
PNE-2 D
NO
ICU admission in 1st 24hrs after arrival
missing/ invalid
Missing or Invalid Denominator
PNE-2 A
PNE-2 Z
ICU24=Yes
PNE-2 K
ICU24=No
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
All missing
PNE-2 C
nameabx available & valid for at least one abx
PNE-2 J


PNE-2 J
NOTE: Only proceed with abx where name is available
Antibiotic route
All missing/ invalid
PNE-2 C
routeabx available & valid for at least one abx
NOTE: Only proceed with abx where name and route are available
Received IV or PO Quinolone?
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=azithromycin, clarithromycin, erythromycin, or doxycycline AND routeabx=IV or PO
Received IV or IM Beta-lactam?
YES nameabx=ampicillin-sulbactam, cefotaxime, or ceftriaxone AND routeabx=IV or IM
Received IV or PO Macrolide or Doxycycline?
NO nameabx<>ampicillin-sulbactam, cefotaxime, or ceftriaxone OR routeabx<>IV or IM
NO nameabx<>azithromycin, clarithromycin, erythromycin, or doxycycline OR routeabx<>IV or PO
PNE-2 D


PNE-2 K
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
All missing
PNE-2 C
nameabx available & valid for at least one abx
NOTE: Only proceed with abx where name is available
Antibiotic route
All missing/ invalid
PNE-2 C
routeabx <>IV for any abx
PNE-2 D
routeabx =IV for at least one abx
NOTE: Only proceed with abx where name is available and route=IV
Received IV Beta-lactam?
YES nameabx=ampicillin-sulbactam, cefotaxime, or ceftriaxone
Received IV Macrolide or Quinolone?
YES nameabx=azithromycin, erythromycin, gatifloxacin, levofloxacin, or moxifloxacin
PNE-2 E
NO nameabx<>azithromycin, erythromycin, gatifloxacin, levofloxacin, or moxifloxacin
NO nameabx<>ampicillin-sulbactam, cefotaxime, or ceftriaxone
YES nameabx=clindamycin or vancomycin
History of allergy to beta-lactam?
hxabxall=Yes
Received IV Quinolone?
YES nameabx=gatifloxacin, levofloxacin, or moxifloxacin
Received IV Clindamycin or Vancomycin?
NO nameab<>gatifloxacin, levofloxacin, or moxifloxacin
NO nameabx<>clindamycin or vancomycin
hxabxall=No or hxabxall missing or invalid
Were any of the following pseudomonas risk factors present?
- othrdx#=494.XX
- bronchiect=Yes
- malnutri=Yes
- alblevel < 3
At least one factor other than the othrdx# is missing or invalid and the other factors are NO
PNE-2 C
All factors are NO or othrdx# is missing with other 3 factors equal to NO
PNE-2 D
At least one factor is YES
PNE-2 L

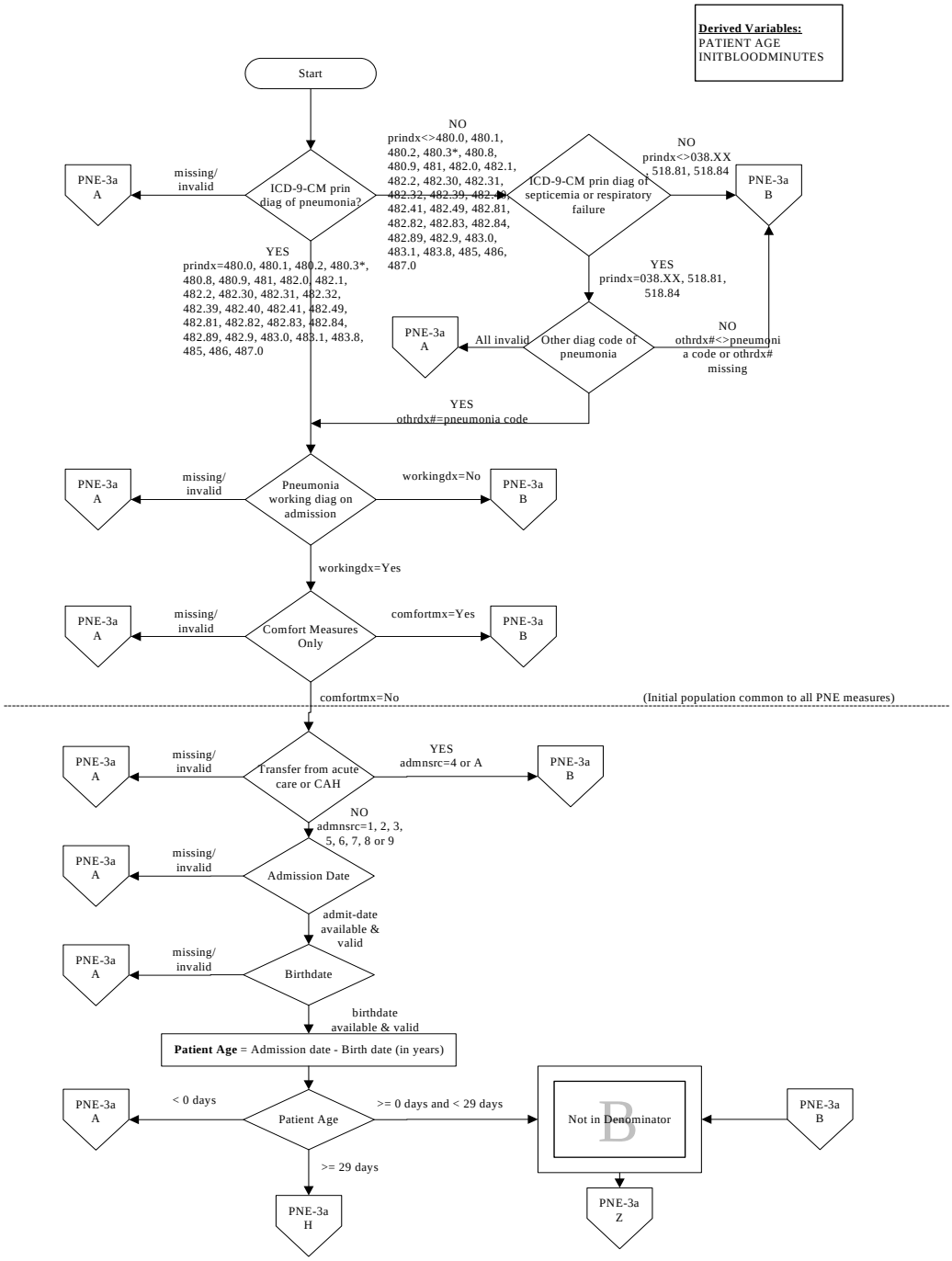

PNE-2 L
Received IV Antipseudomonal Beta-lactam?
NO nameabx<>cefepime, imipenem, meropenem, or piperacillin-tazobactam
YES nameabx=cefepime, imipenem, meropenem, or piperacillin-tazobactam
Received IV Antipseudomonal Quinolone?
YES nameabx=ciprofloxacin
PNE-2 E
NO nameabx<>ciprofloxacin
Received IV Aminoglycoside?
NO nameabx<>amikacin, gentamicin, or tobramycin
YES nameabx=amikacin, gentamicin, or tobramycin
Received IV Antipneumococcal Quinolone or IV Macrolide?
YES nameabx=azithromycin, erythromycin, gatifloxacin, levofloxacin, or moxifloxacin
PNE-2 E
PNE-2 C
NO nameabx<>azithromycin, erythromycin, gatifloxacin, levofloxacin, or moxifloxacin
Missing or invalid numerator
C
hxabxall missing or invalid
History of allergy to beta-lactam?
hxabxall=No
PNE-2 D
PNE-2 Z
hxabxall=Yes
Received IV Aztreonam?
NO nameabx<>aztreonam
PNE-2 D
YES nameabx=aztreonam
PNE-2 M



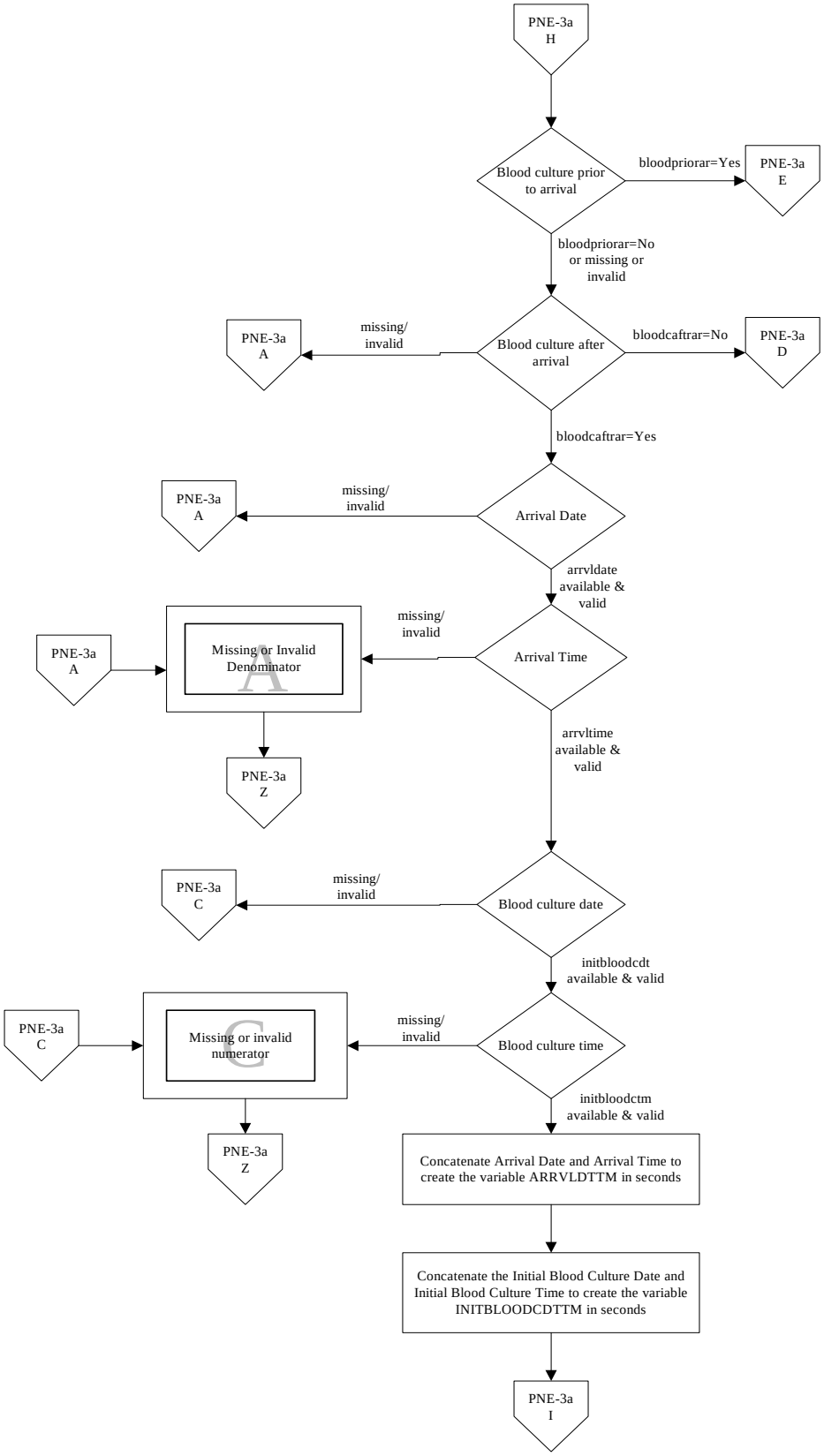
6.5.4 PNE-3a: Blood Cultures Performed Within 24 Hours Prior to or After Hospital Arrival (CMS Only)

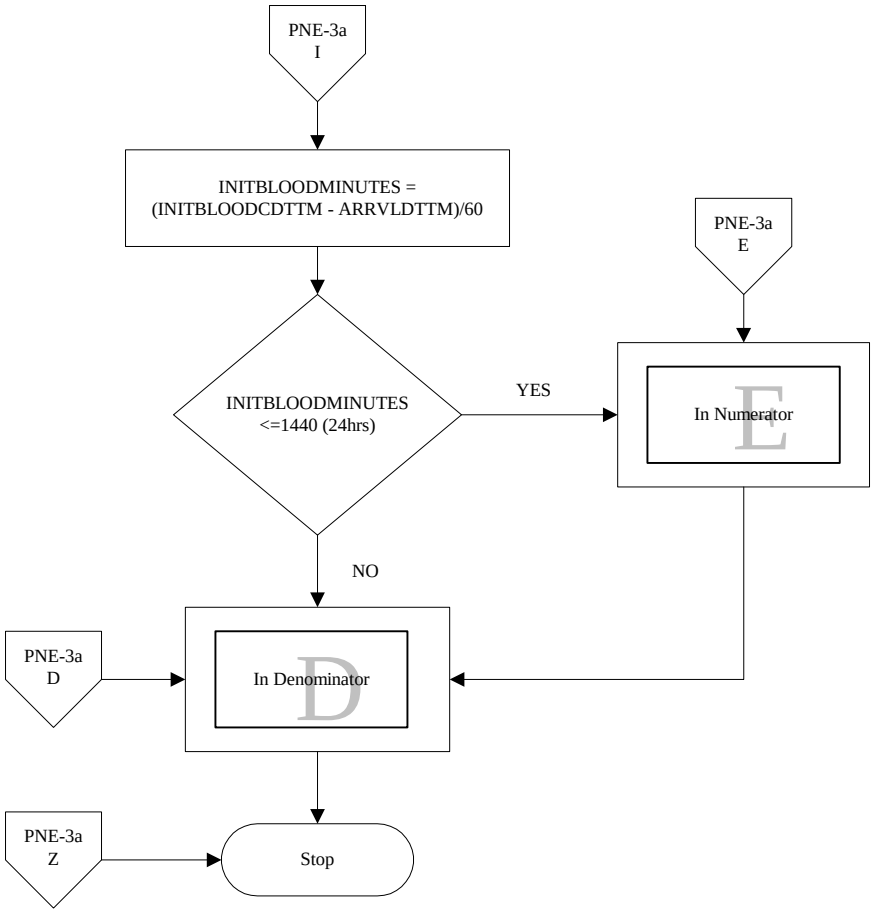
Numerator – Number of pneumonia patients who had blood cultures performed within 24 hours prior to or after arrival at the hospital.

Denominator – All pneumonia patients with a working diagnosis of pneumonia on admission and who were not receiving comfort care measures only.



* 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.

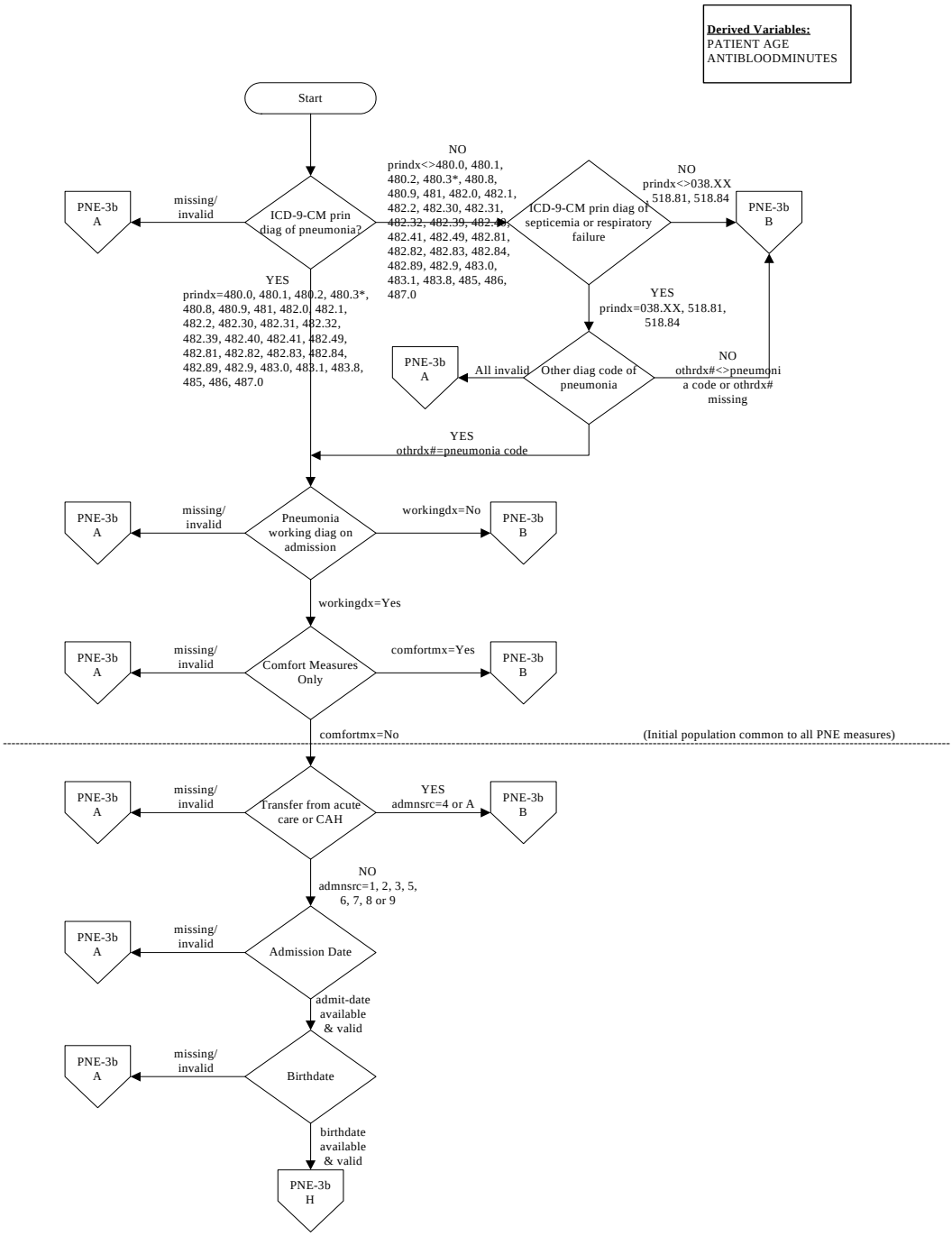

PNE-3a H
Blood culture prior to arrival
bloodpriorar=Yes
PNE-3a E
bloodpriorar=No or missing or invalid
Blood culture after arrival
missing/ invalid
PNE-3a A
bloodcaftrar=No
PNE-3a D
bloodcaftrar=Yes
Arrival Date
missing/ invalid
PNE-3a A
arrvldate available & valid
Arrival Time
missing/ invalid
Missing or Invalid Denominator
A
PNE-3a A
PNE-3a Z
arrvltime available & valid
Blood culture date
missing/ invalid
PNE-3a C
initbloodcdt available & valid
Blood culture time
missing/ invalid
Missing or invalid numerator
C
PNE-3a C
PNE-3a Z
initbloodctm available & valid
Concatenate Arrival Date and Arrival Time to create the variable ARRVLDTTM in seconds
Concatenate the Initial Blood Culture Date and Initial Blood Culture Time to create the variable INITBLOODCDTTM in seconds
PNE-3a I



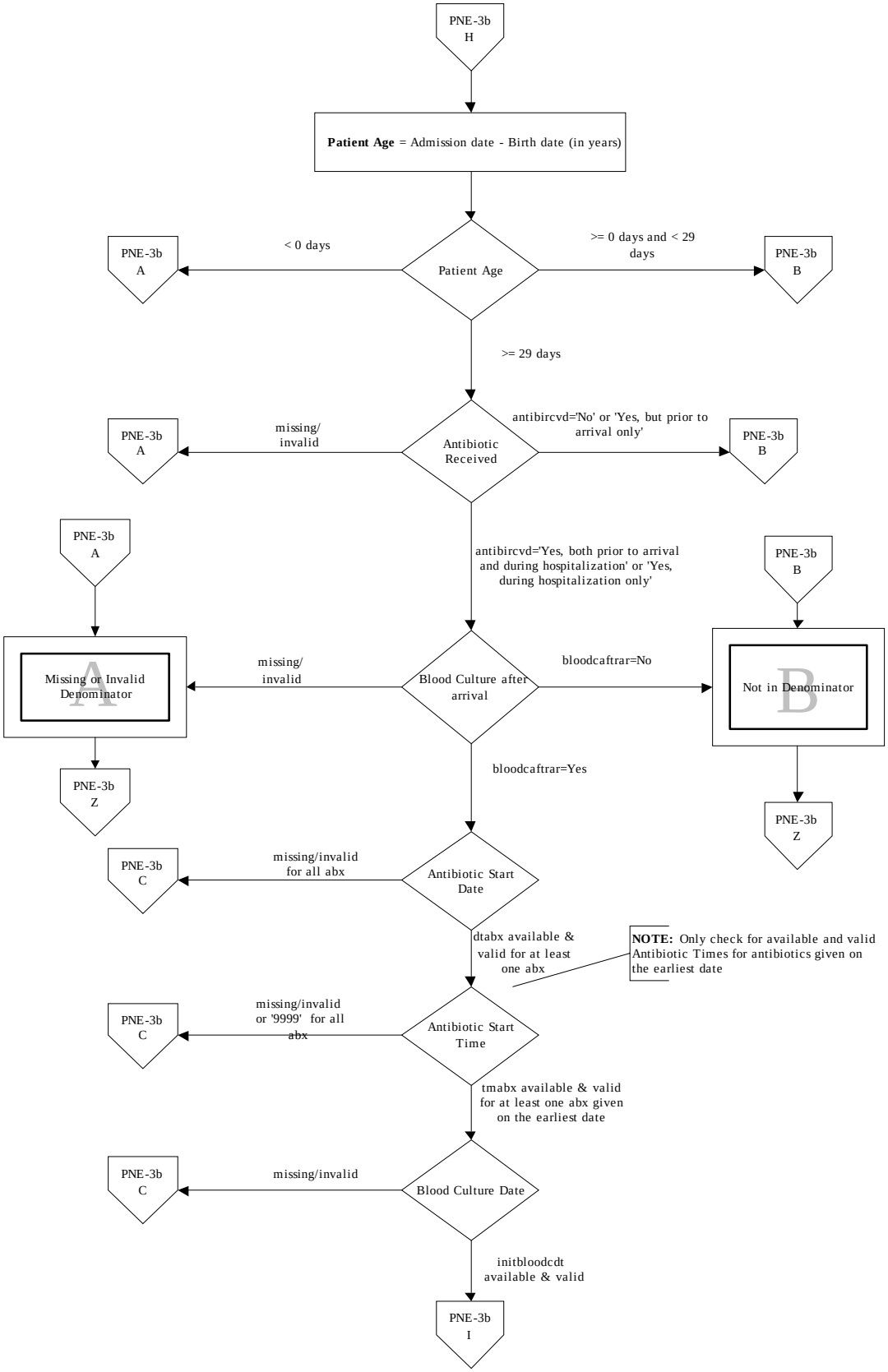
6.5.5 PNE-3b: Blood Culture Performed Before First Antibiotic Received in Hospital (CMS/JCAHO CAP-3)

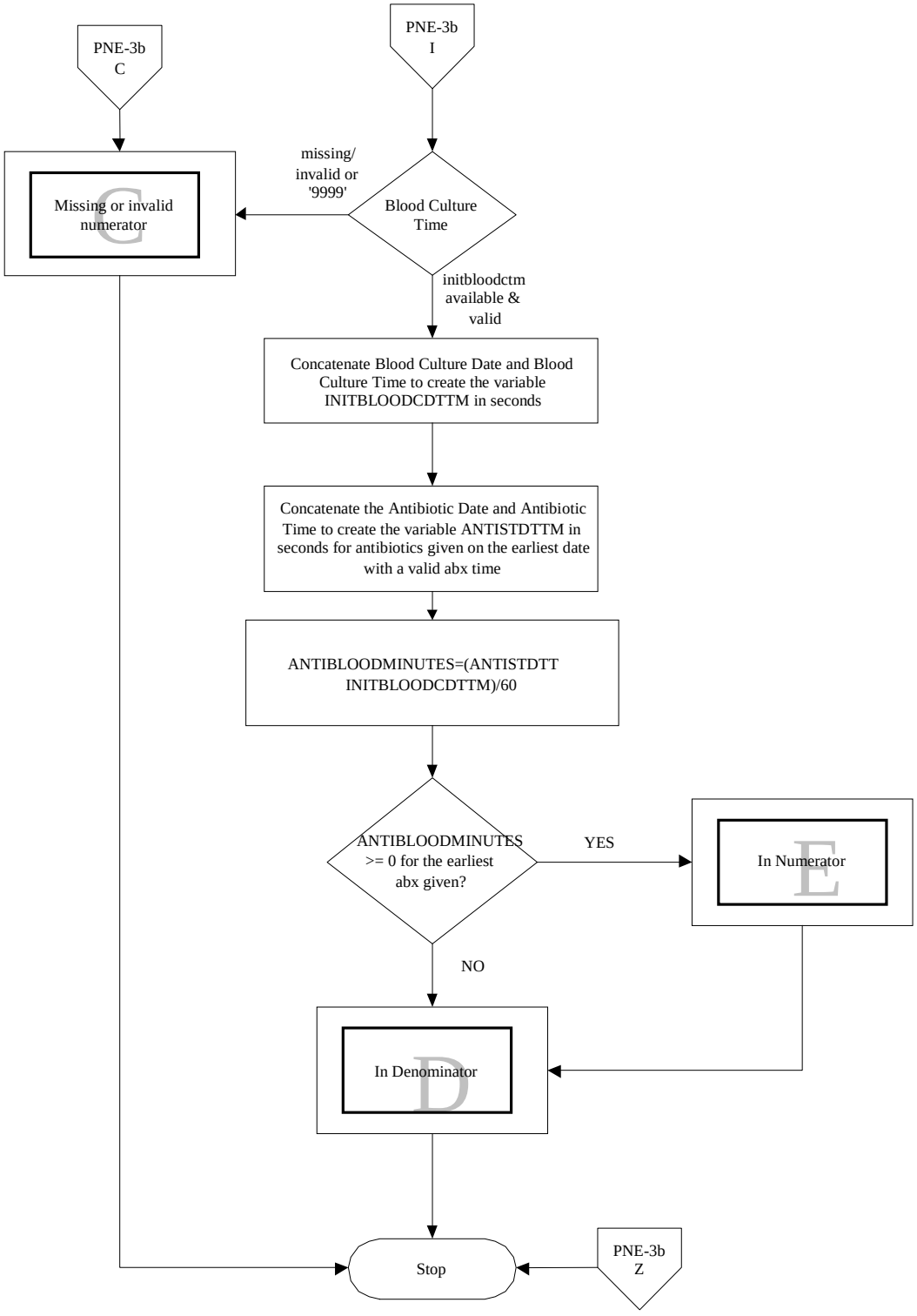
Numerator – Number of pneumonia patients whose initial blood culture was performed prior to the administration of the first hospital dose of antibiotics.

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.



* 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.

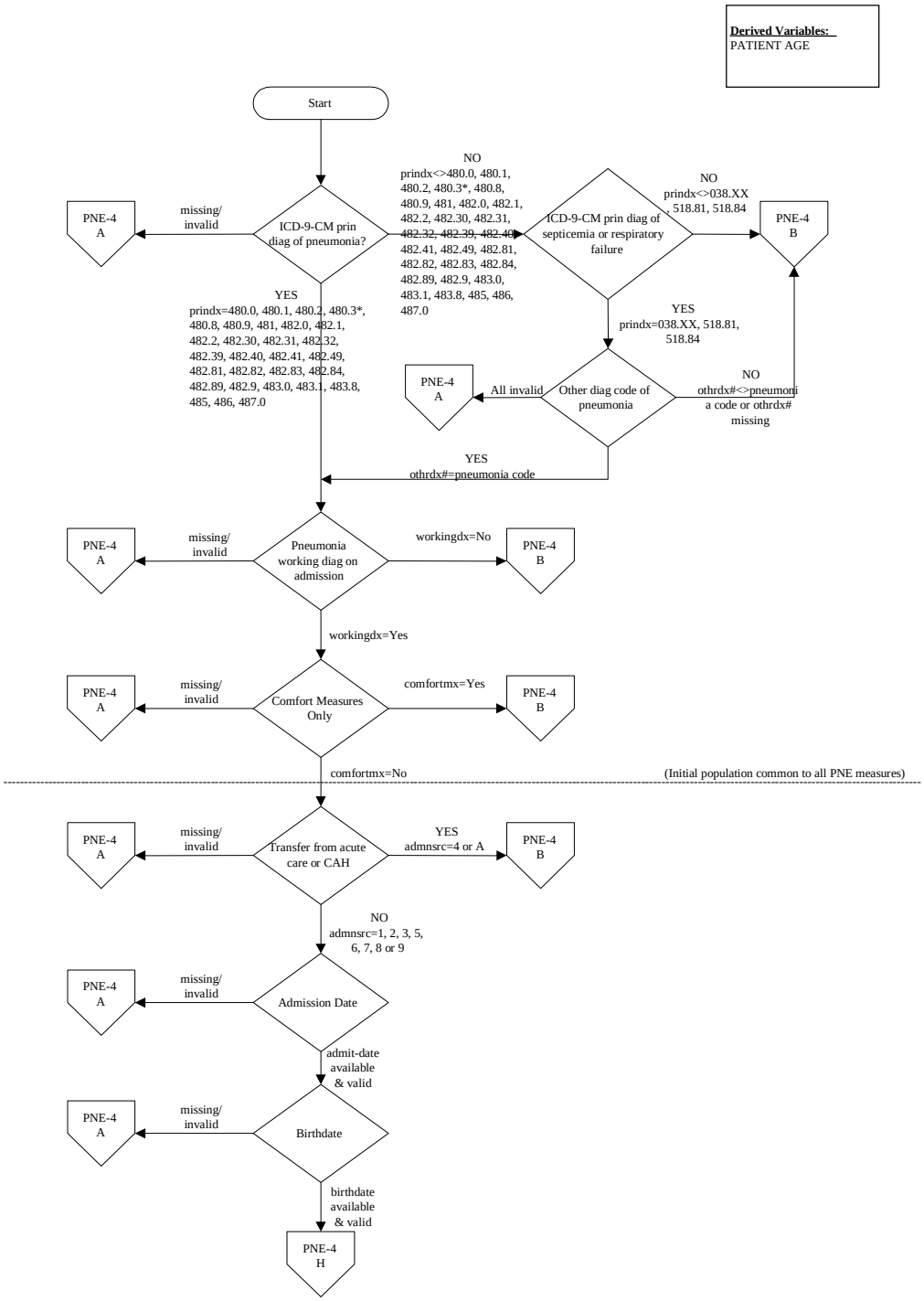

PNE-3b H
Patient Age = Admission date - Birth date (in years)
Patient Age
< 0 days
PNE-3b A
>= 0 days and < 29 days
PNE-3b B
>= 29 days
Antibiotic Received
missing/ invalid
PNE-3b A
antibircvd='No' or 'Yes, but prior to arrival only'
PNE-3b B
antibircvd='Yes, both prior to arrival and during hospitalization' or 'Yes, during hospitalization only'
PNE-3b A
PNE-3b B
Blood Culture after arrival
missing/ invalid
A
Missing or Invalid Denominator
bloodcaftrar=No
B
Not in Denominator
PNE-3b Z
PNE-3b Z
bloodcaftrar=Yes
Antibiotic Start Date
missing/invalid for all abx
PNE-3b C
dtabx available & valid for at least one abx
NOTE: Only check for available and valid Antibiotic Times for antibiotics given on the earliest date
Antibiotic Start Time
missing/invalid or '9999' for all abx
PNE-3b C
tmabx available & valid for at least one abx given on the earliest date
Blood Culture Date
missing/invalid
PNE-3b C
initbloodcdt available & valid
PNE-3b I

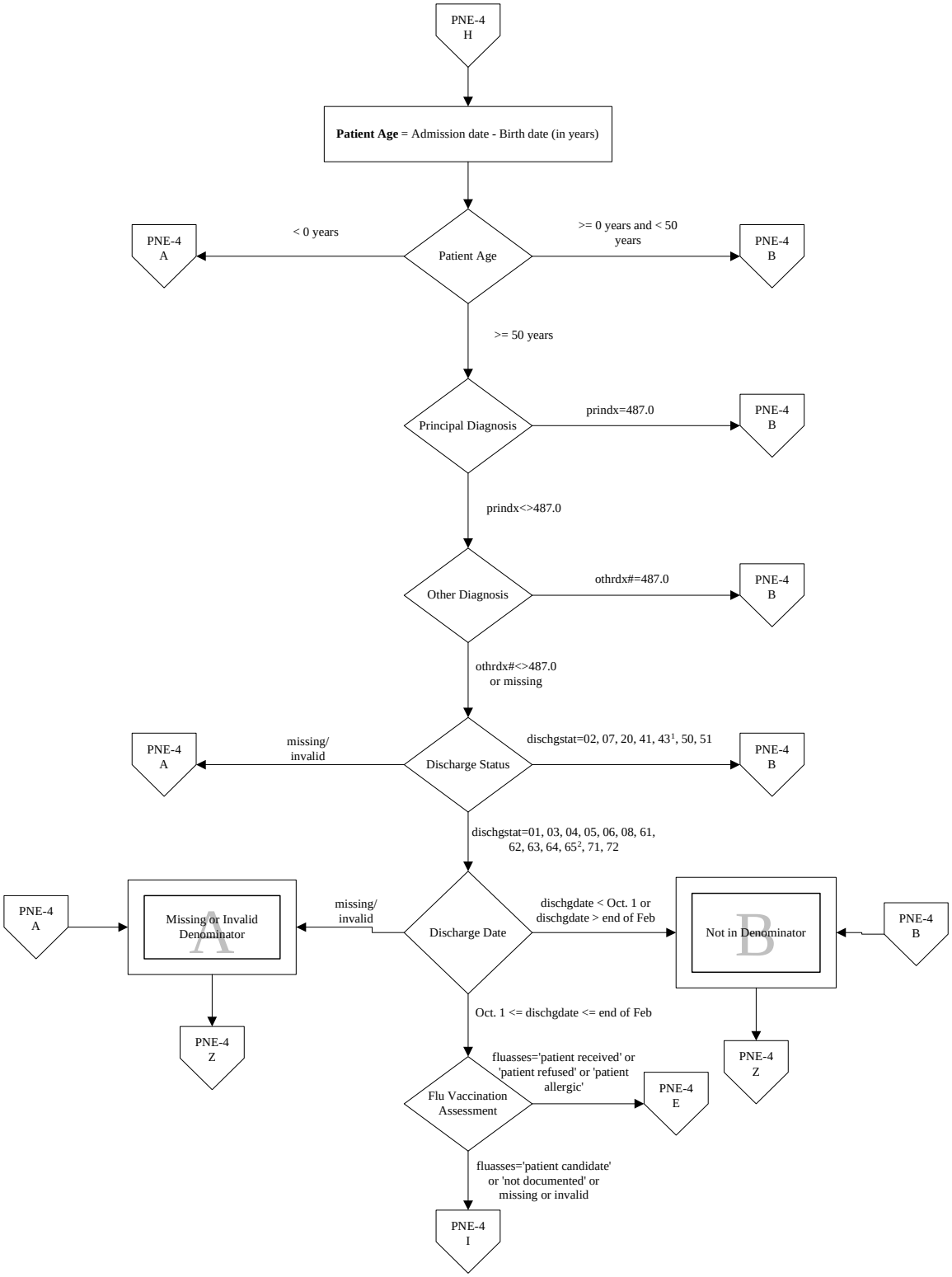

PNE-3b C
PNE-3b I
missing/ invalid or '9999'
Blood Culture Time
Missing or invalid numerator
C
initbloodctm available & valid
Concatenate Blood Culture Date and Blood Culture Time to create the variable INITBLOODCDTTM in seconds
Concatenate the Antibiotic Date and Antibiotic Time to create the variable 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
E
NO
In Denominator
D
Stop
PNE-3b Z

6.5.6 PNE-4: Influenza Vaccination (CMS Only)

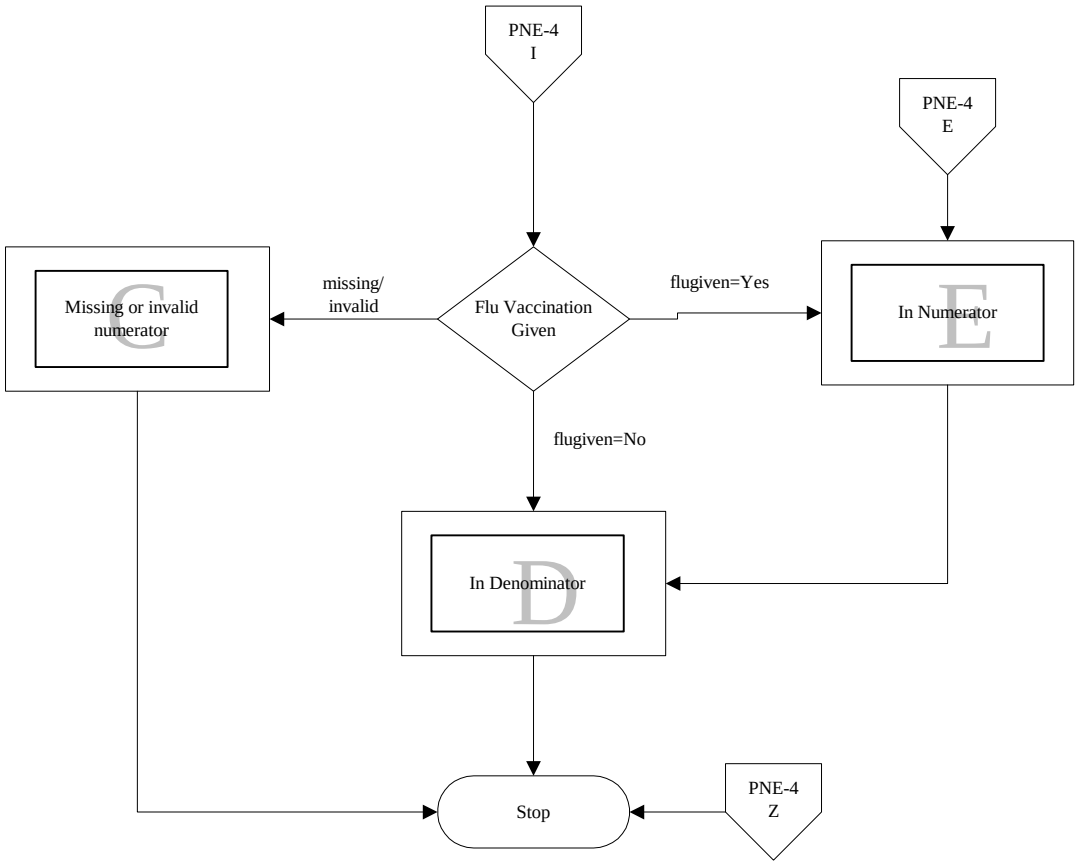
Numerator – Patients discharged during October, November, December, January, or February with pneumonia, age 50 and older, which were screened for influenza vaccine status and were vaccinated prior to discharge, if indicated.

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.


Derived Variables:
PATIENT AGE
Start
ICD-9-CM prin diag of pneumonia?
missing/ invalid
PNE-4 A
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, 482.49, 482.81, 482.82, 482.83, 482.84, 482.89, 482.9, 483.0, 483.1, 483.8, 485, 486, 487.0
ICD-9-CM prin diag of septicemia or respiratory failure
NO prindx<>038.XX 518.81, 518.84
PNE-4 B
YES prindx=038.XX, 518.81, 518.84
YES 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, 482.49, 482.81, 482.82, 482.83, 482.84, 482.89, 482.9, 483.0, 483.1, 483.8, 485, 486, 487.0
Other diag code of pneumonia
All invalid
PNE-4 A
NO othrdx#<>pneumonia code or othrdx# missing
YES othrdx#=pneumonia code
Pneumonia working diag on admission
missing/ invalid
PNE-4 A
workingdx=No
PNE-4 B
workingdx=Yes
Comfort Measures Only
missing/ invalid
PNE-4 A
comfortmx=Yes
PNE-4 B
comfortmx=No
(Initial population common to all PNE measures)
Transfer from acute care or CAH
missing/ invalid
PNE-4 A
YES admnsrc=4 or A
PNE-4 B
NO admnsrc=1, 2, 3, 5, 6, 7, 8 or 9
Admission Date
missing/ invalid
PNE-4 A
admit-date available & valid
Birthdate
missing/ invalid
PNE-4 A
birthdate available & valid
PNE-4 H



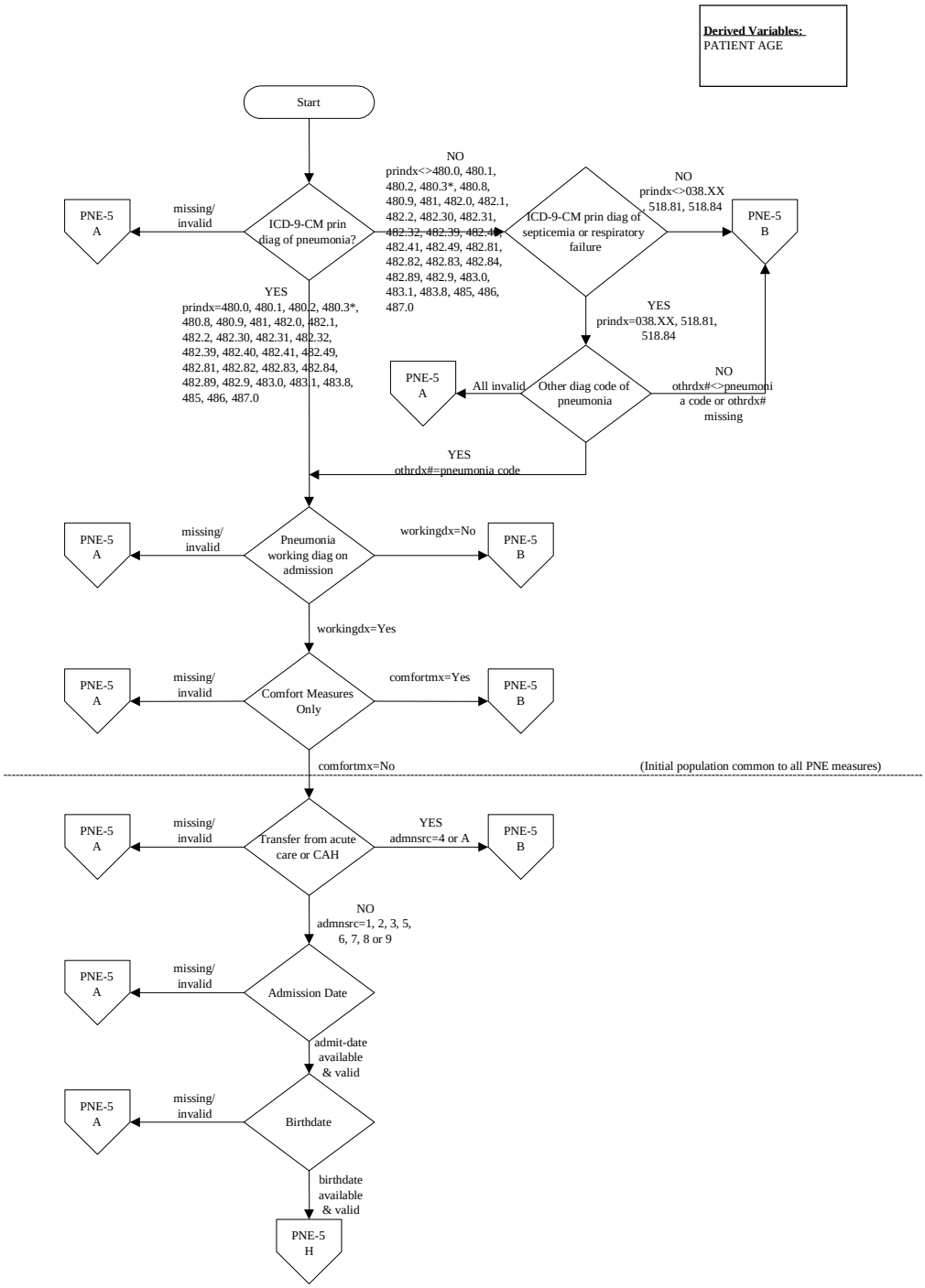
[1] The discharge status code 43, discharged/transferred to a federal hospital, is effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.
[2] The discharge status code 65, discharged/transferred to a psychiatric hospital, is effective beginning with 04/01/04 discharges, and will be programmed into a future version of CART.



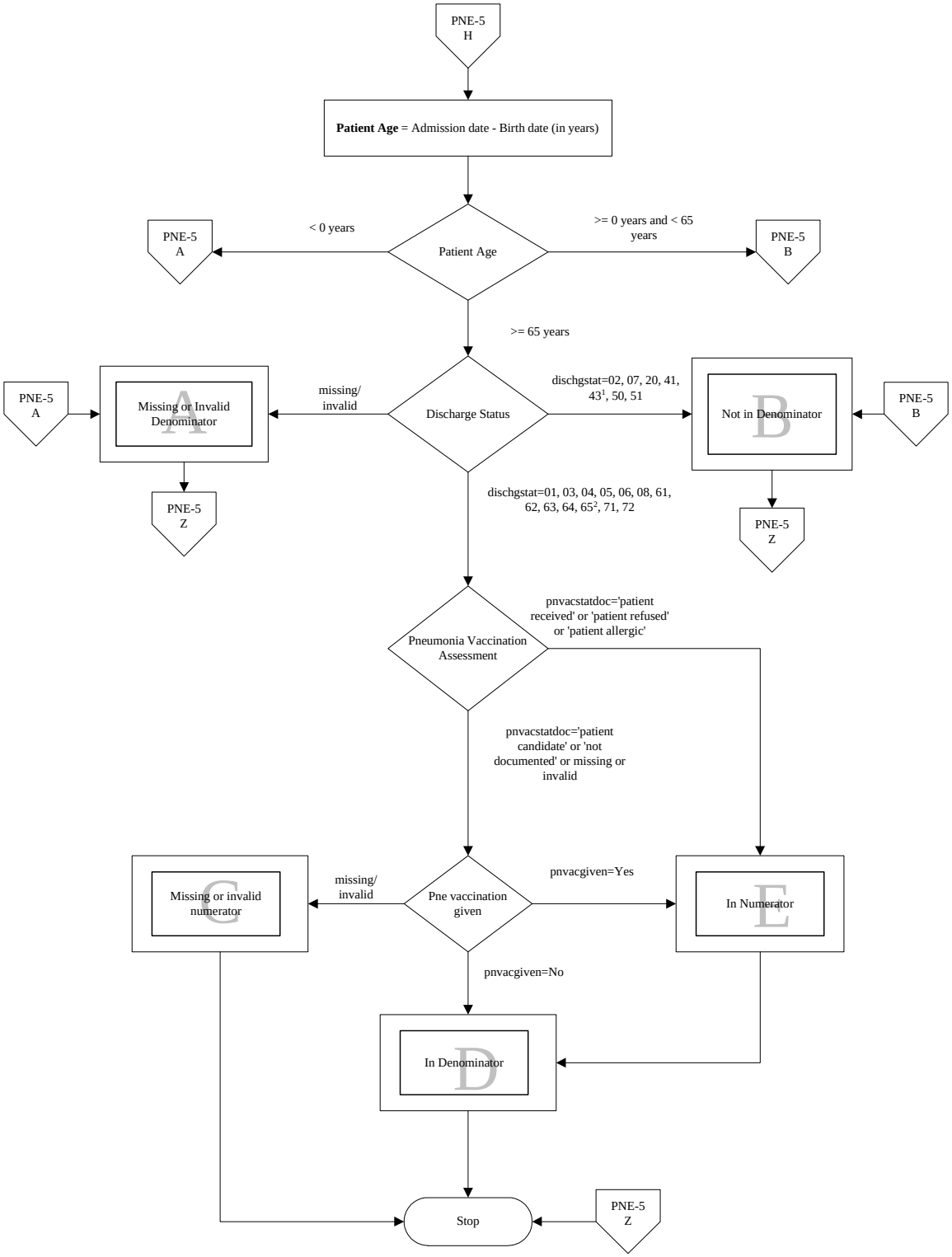
6.5.7 PNE-5: Pneumococcal Vaccination (CMS /JCAHO CAP-2)

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.



* 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.

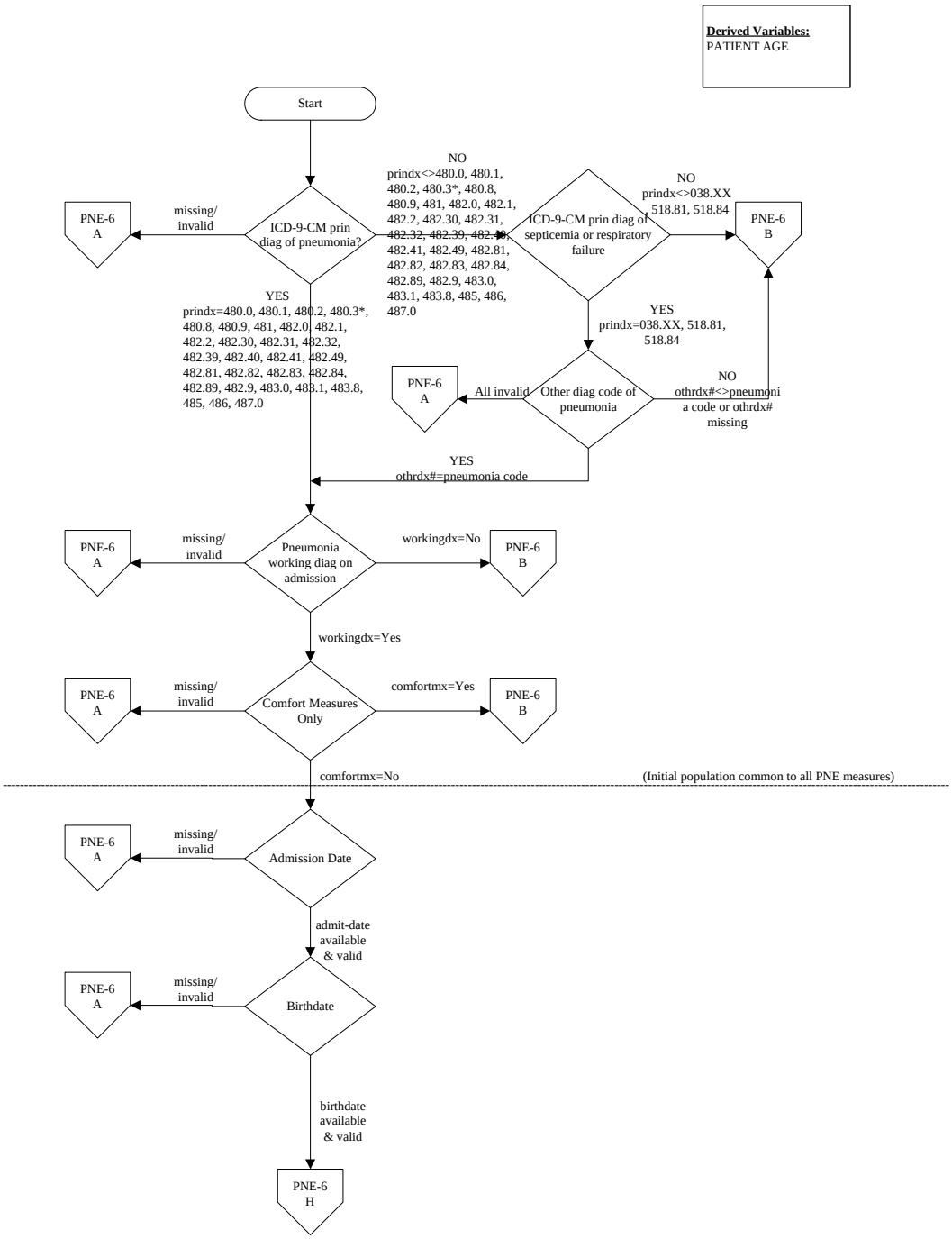


[1] The discharge status code 43, discharged/transferred to a federal hospital, is effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.
[2] The discharge status code 65, discharged/transferred to a psychiatric hospital, is effective beginning with 04/01/04 discharges, and will be programmed into a future version of CART.

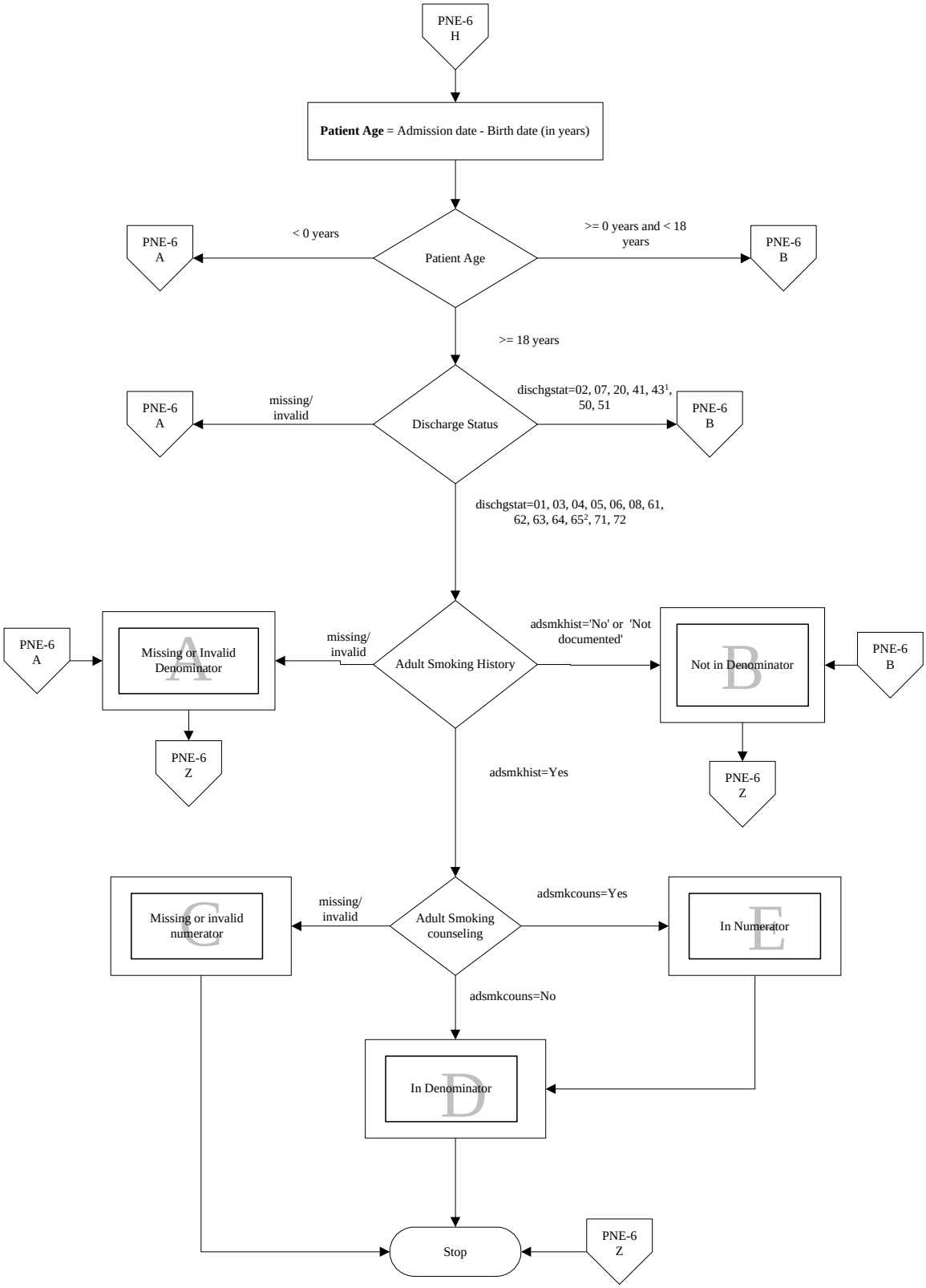
6.5.8 PNE-6: Adult Smoking Cessation Advice/Counseling (CMS /JCAHO CAP-4a)

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.



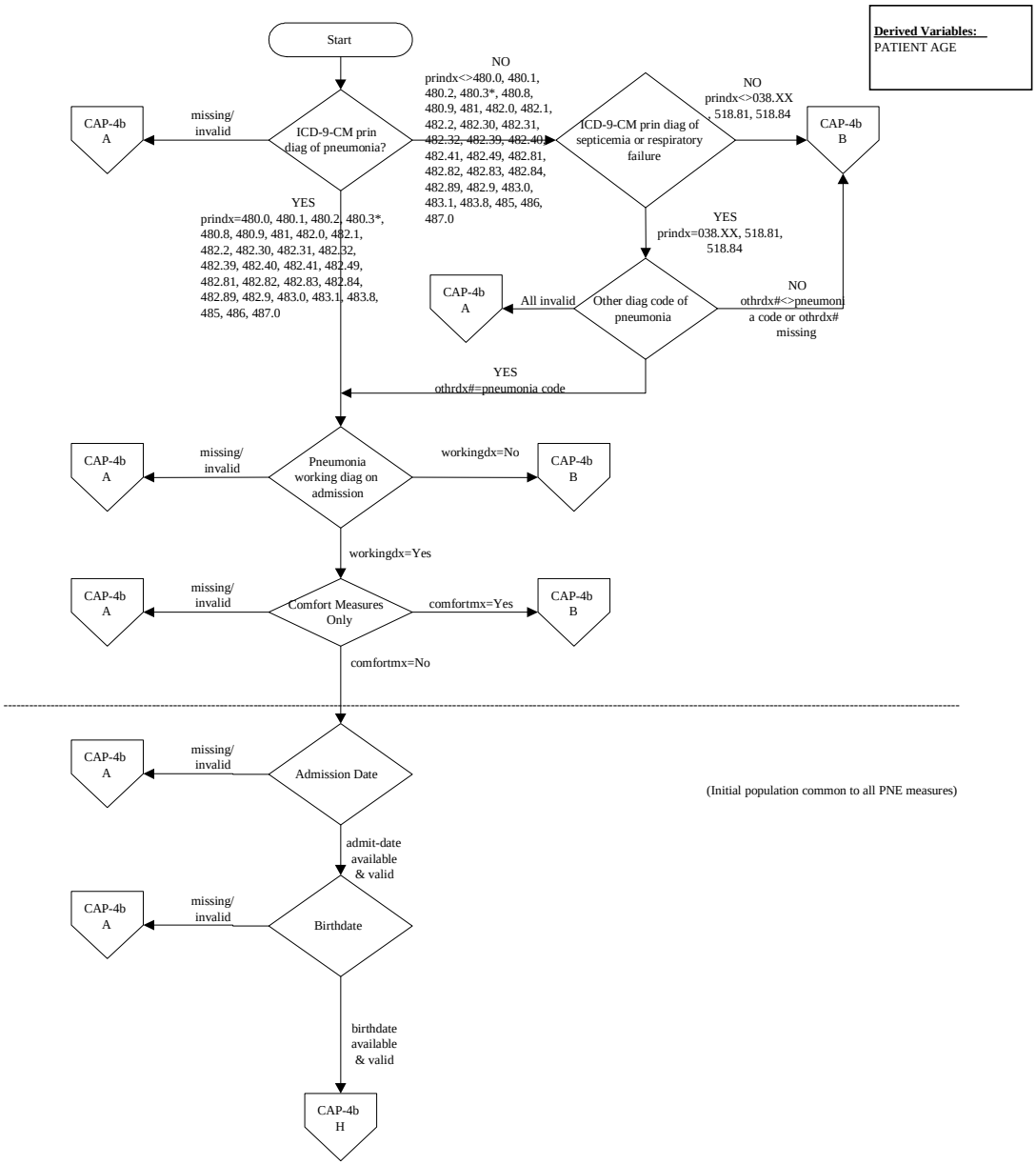
* The ICD-9-CM code of 480.3 (Pneumonia due to SARS-associated coronavirus) will be effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.


PNE-6 H
Patient Age = Admission date - Birth date (in years)
Patient Age
< 0 years
PNE-6 A
>= 0 years and < 18 years
PNE-6 B
>= 18 years
Discharge Status
missing/ invalid
PNE-6 A
dischgstat=02, 07, 20, 41, 43[1], 50, 51
PNE-6 B
dischgstat=01, 03, 04, 05, 06, 08, 61, 62, 63, 64, 65[2], 71, 72
Adult Smoking History
missing/ invalid
PNE-6 A
A
Missing or Invalid Denominator
PNE-6 Z
adsmkhist='No' or 'Not documented'
B
Not in Denominator
PNE-6 B
PNE-6 Z
adsmkhist=Yes
Adult Smoking counseling
missing/ invalid
C
Missing or invalid numerator
adsmkcouns=Yes
E
In Numerator
adsmkcouns=No
D
In Denominator
Stop
PNE-6 Z

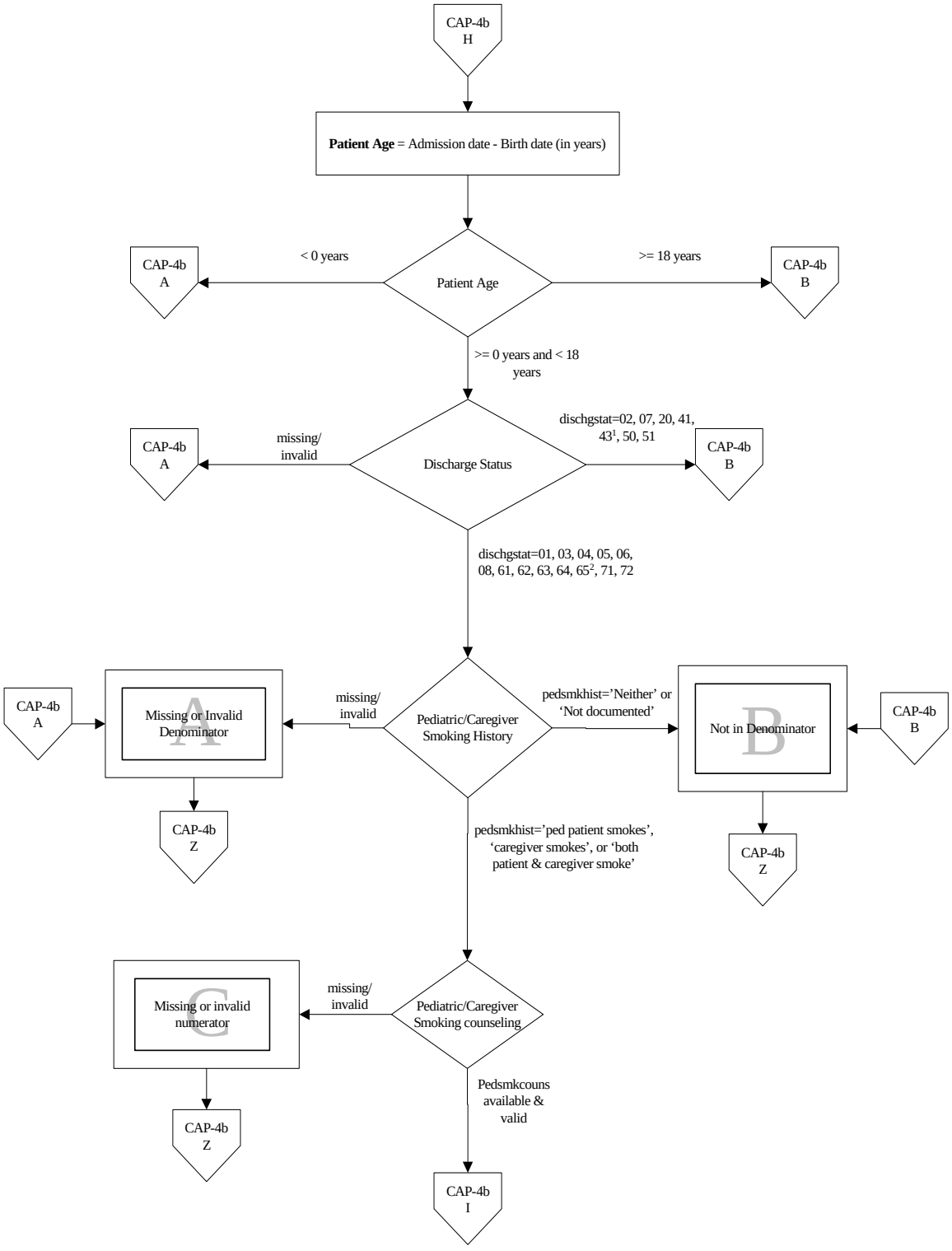
6.5.9 JCAHO CAP-4b: Pediatric Smoking Cessation Advice/Counseling (JCAHO Only)

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.

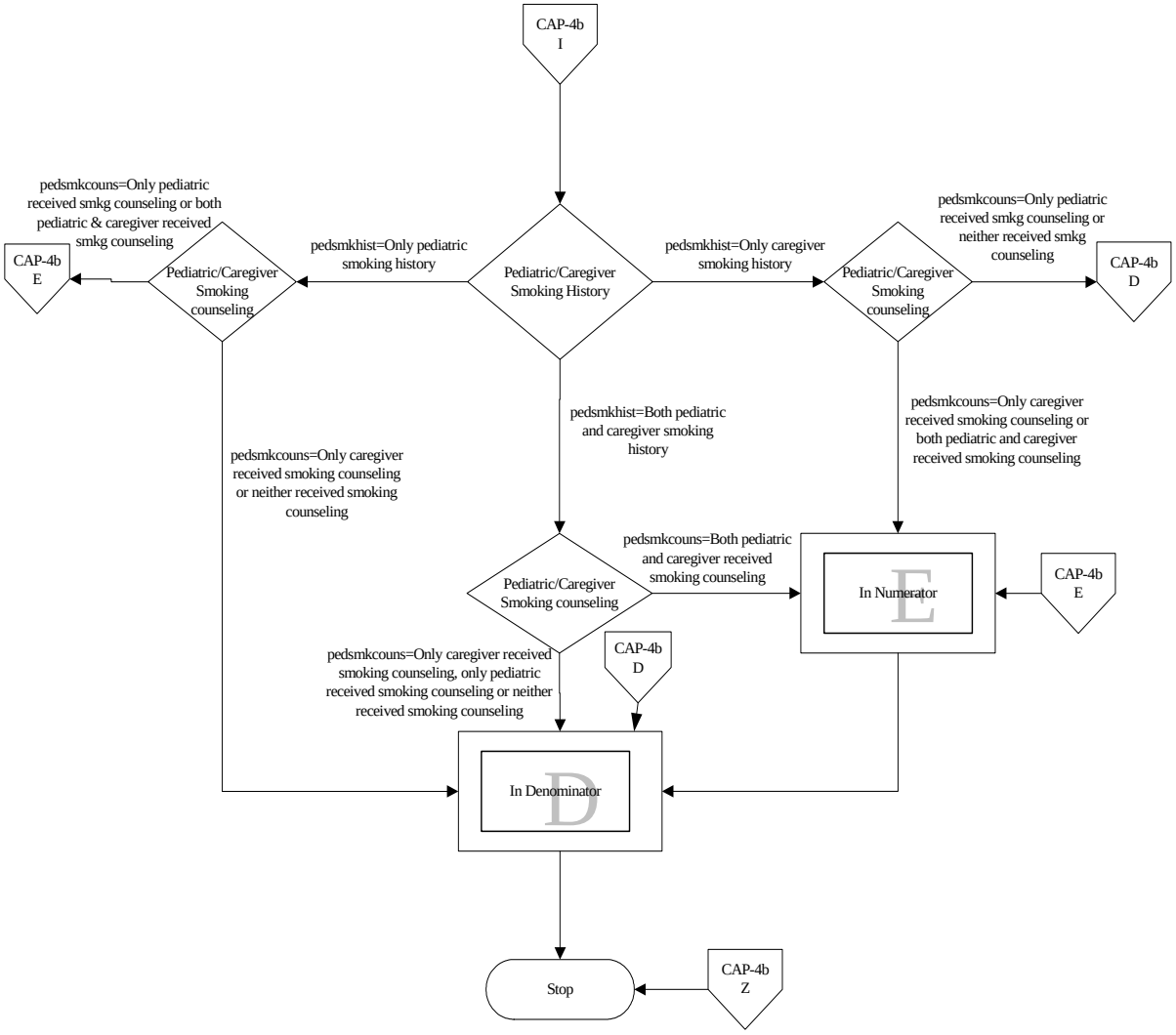
Denominator – All pediatric pneumonia patients less than 18 years of age and/or their caregivers with a history of smoking cigarettes during the year prior to arrival with a working diagnosis of pneumonia on admission and who were not receiving comfort care measures only.



* 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.



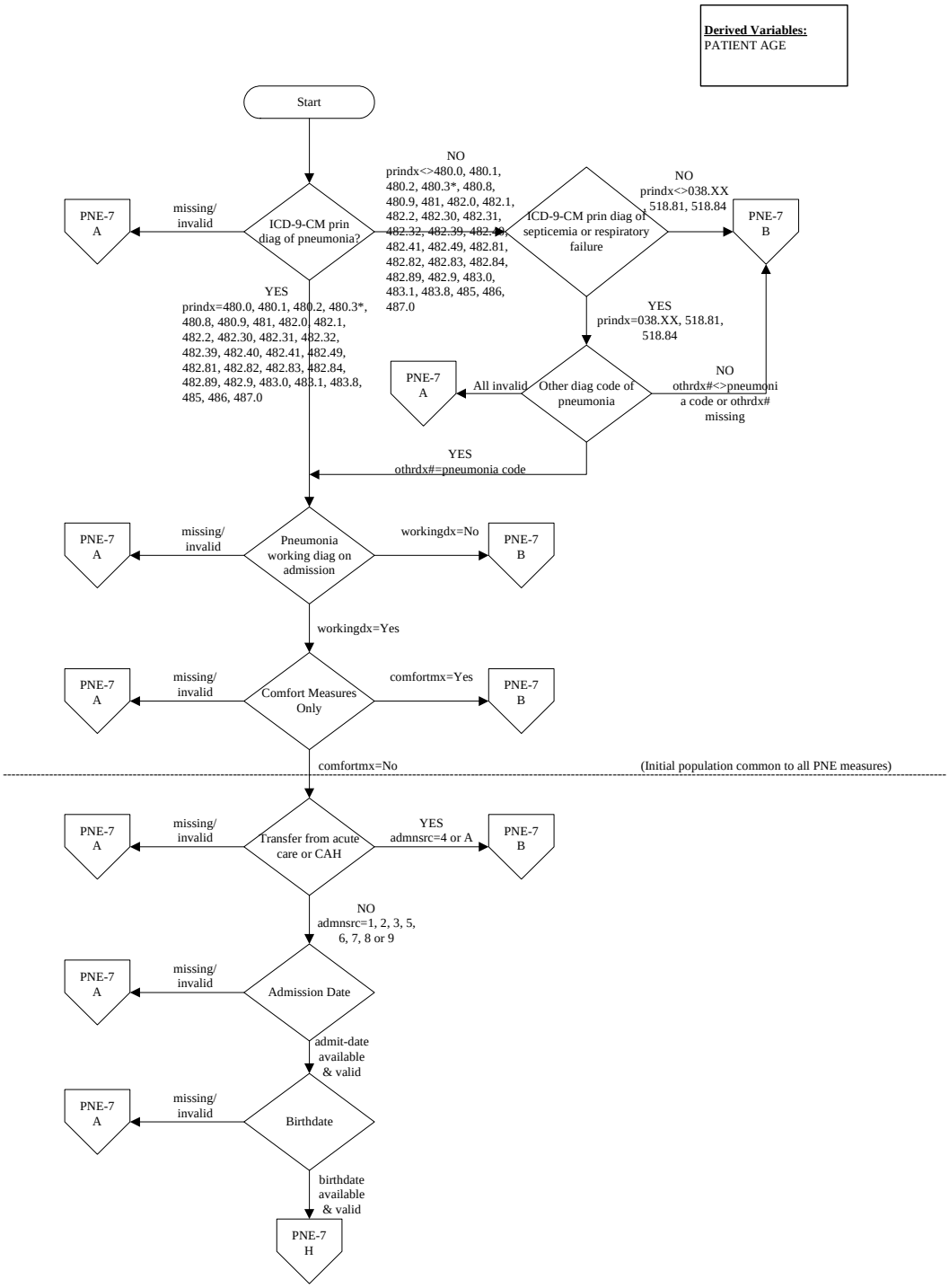
[1] The discharge status code 43, discharged/transferred to a federal hospital, is effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.
[2] The discharge status code 65, discharged/transferred to a psychiatric hospital, is effective beginning with 04/01/04 discharges, and will be programmed into a future version of CART.



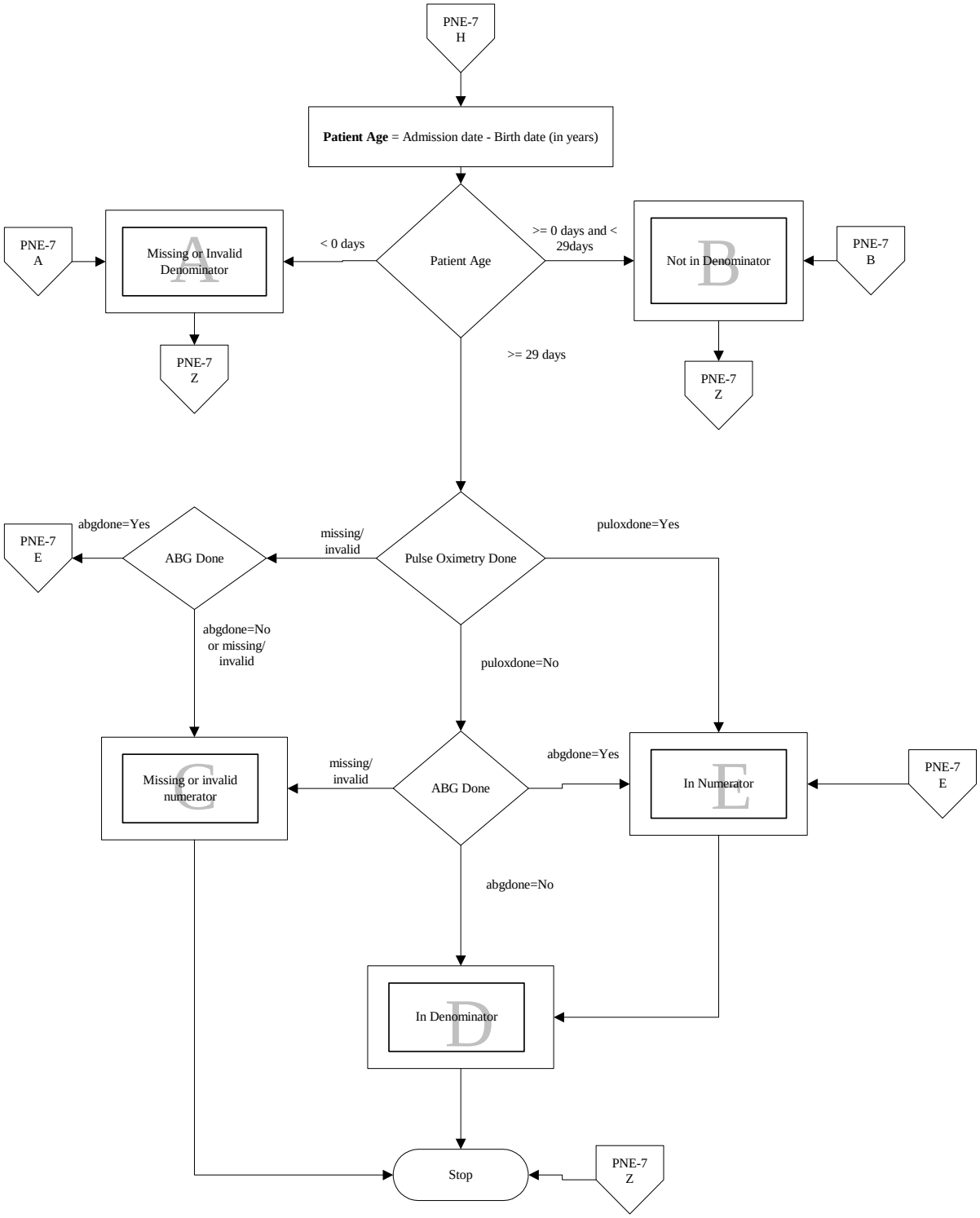
6.5.10 PNE-7: Oxygenation Assessment (CMS /JCAHO CAP-1)

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.

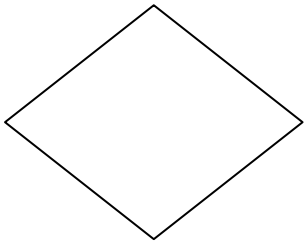


* The ICD-9-CM code of 480.3 (Pneumonia due to SARS-associated coronavirus) will be effective beginning with 10/01/03 discharges and will be programmed into a future version of CART.


PNE-7 H
Patient Age = Admission date - Birth date (in years)
Patient Age
< 0 days
>= 0 days and < 29days
>= 29 days
PNE-7 A
Missing or Invalid Denominator
A
PNE-7 Z
Not in Denominator
B
PNE-7 B
PNE-7 Z
Pulse Oximetry Done
missing/ invalid
puloxdone=Yes
ABG Done
abgdone=Yes
PNE-7 E
abgdone=No or missing/ invalid
puloxdone=No
Missing or invalid numerator
C
missing/ invalid
ABG Done
abgdone=Yes
In Numerator
E
PNE-7 E
abgdone=No
In Denominator
D
Stop
PNE-7 Z

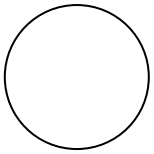
6.5.11 Symbols Used with Flowcharts

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

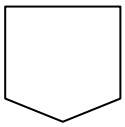


Diamonds represent “If . . . Then” decision points for logic tests and comparisons.

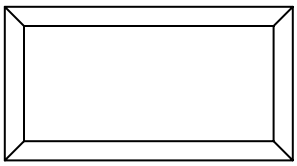
Rectangles (sometimes referred to as process boxes) show when computation or manipulation of the data is required, such as calculating a derived variable.



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:

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