Measure Information Form
Collected For: The Joint Commission Only
CMS Informational Only

Measure Set: Substance Use (SUB)

Set Measure ID #: SUB-4

Performance Measure Name: Alcohol and Drug Use: Assessing Status After Discharge

Description: Discharged patients who screened positive for unhealthy alcohol use or who received a diagnosis of alcohol or drug disorder during their inpatient stay, who are contacted within 30 days after hospital discharge and follow-up information regarding their alcohol or drug use status post discharge is collected.

Rationale: Excessive use of alcohol and drugs has a catastrophic impact on health and society in the United States (The National "Quality Forum, A Consensus Report 2007). In 1998 the costs to society were 185 billion dollars for alcohol misuse, and 143 billion dollars for drugs (Harwood 2000). This includes annual health care spending of over 19 billion dollars for consequences of alcohol problems, and 14 billion dollars related to drugs. Businesses suffer from one-quarter of a trillion dollars per year in lost productivity. Alcohol, drug, and tobacco use cause over one out of four of the 2.4 million annual deaths in the U.S (Office of National Drug Control Policy).

An estimated 22.6 million adolescents and adults meet criteria for a substance use disorder, but addictions are not the most common type of problem. For every patient with alcohol dependence there are six who drink in an excessive manner that harms their health. For every patient with a drug addiction there are three who risk their health through use, but are not dependent. In a multi-state study that screened 459,599 patients in general hospital and medical settings, 23% were positive. Of these, 16% used alcohol or drugs above safe limits, an additional 3% were very heavy users, but only 4% had an addictive use pattern (Mokdad 2000).

Clinical trials have demonstrated that brief interventions significantly improve health and reduce costs in non-dependent drinkers; similar benefits occur in those with addictions who are referred to treatment (Madras 2009).

Substance use contributes to over 50 medical problems commonly treated in hospitals (Fleming 2002). A hospital admission provides a unique opportunity to address substance use. For many patients, addressing substance use is the only way to control their other health problems (Gentilello 2005).

Type of Measure: Outcome

Improvement Noted As: Increase in the rate

Numerator Statement: The number of discharged patients that are contacted within 30 days after hospital discharge and follow-up information regarding alcohol or drug use status is collected.

    Included Populations: Not applicable

    Excluded Populations: None

    Data Elements:
- *Alcohol or Drug Use Status Post-Discharge (Informational Only)*
- *Follow-up Contact*
- *Follow-up Contact Date*

Denominator Statement: The number of discharged patients 18 years of age and older who screened positive for unhealthy alcohol use or who received a diagnosis of alcohol or drug use disorder during their hospital stay.

    Included Populations:
- Patients with an ICD-9-CM Principal or Other Diagnosis Code for alcohol or drug use disorder listed in Appendix A on Table 13.1 or 13.2
- Patients with an ICD-9-CM Principal or Other Procedure Code listed in Appendix A on Table 13.3
- Patients who screened positive for unhealthy alcohol use

    Excluded Populations:
- Patients less than 18 years of age
- Patient who expired
- Patients who have a duration of stay less than or equal to one day greater than 120 days
- Patients who do not screen positive for unhealthy alcohol use
- Patients discharged to another hospital
- Patients who left against medical advice
- Patients discharged to another health care facility
- Patients discharged to home for hospice care
- Patients who do not reside in the United States
- Patients who do not have a phone or cannot provide any contact information
- Patients discharged to a detention facility, jail, or prison

    Data Elements:
- *Admission Date*
- *Alcohol Use Status*

- *Alcohol or Drug Disorder*
- *Birthdate*
- *Discharge Date*
- *Discharge Disposition*
- *ICD-9-CM Other Diagnosis Codes*
- *ICD-9-CM Other Procedure Codes*
- *ICD-9-CM Principal Diagnosis Code*
- *ICD-9-CM Principal Procedure Code*

Risk Adjustment: No

Data Collection Approach: Retrospective data sources for required data elements include administrative data and medical records. Some hospitals may prefer to gather data concurrently by identifying patients in the population of interest. This approach provides opportunities for improvement at the point of care/service. However, complete documentation includes the principal and other ICD-9-CM diagnoses which require retrospective data entry.

The measure intent as described in the measure description and numerator statement is that information gathered during the follow-up contact regarding the patient's compliance with prescribed outpatient treatment and post discharge status relevant to substance use will be cataloged at the hospital. The informational data element for Alcohol or Drug Use Satus Post Discharge should be referenced and pertinent allowable values recorded on follow up log sheets or other documentation as determined appropriate by the hospital.

Data Accuracy: Data accuracy is enhanced when all definitions are used without modification. The data dictionary should be referenced for definitions and abstraction notes when questions arise during data collection.

Measure Analysis Suggestions: Hospitals may wish to analyze the measure data using the informational data element *Alcohol or Drug Use Status Post Discharge* to determine the difference in use status related to interventions made during the hospital stay or referrals at discharge.

Sampling: Yes, please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Specifications section.

Data Reported As: Aggregate rate generated from count data reported as a proportion
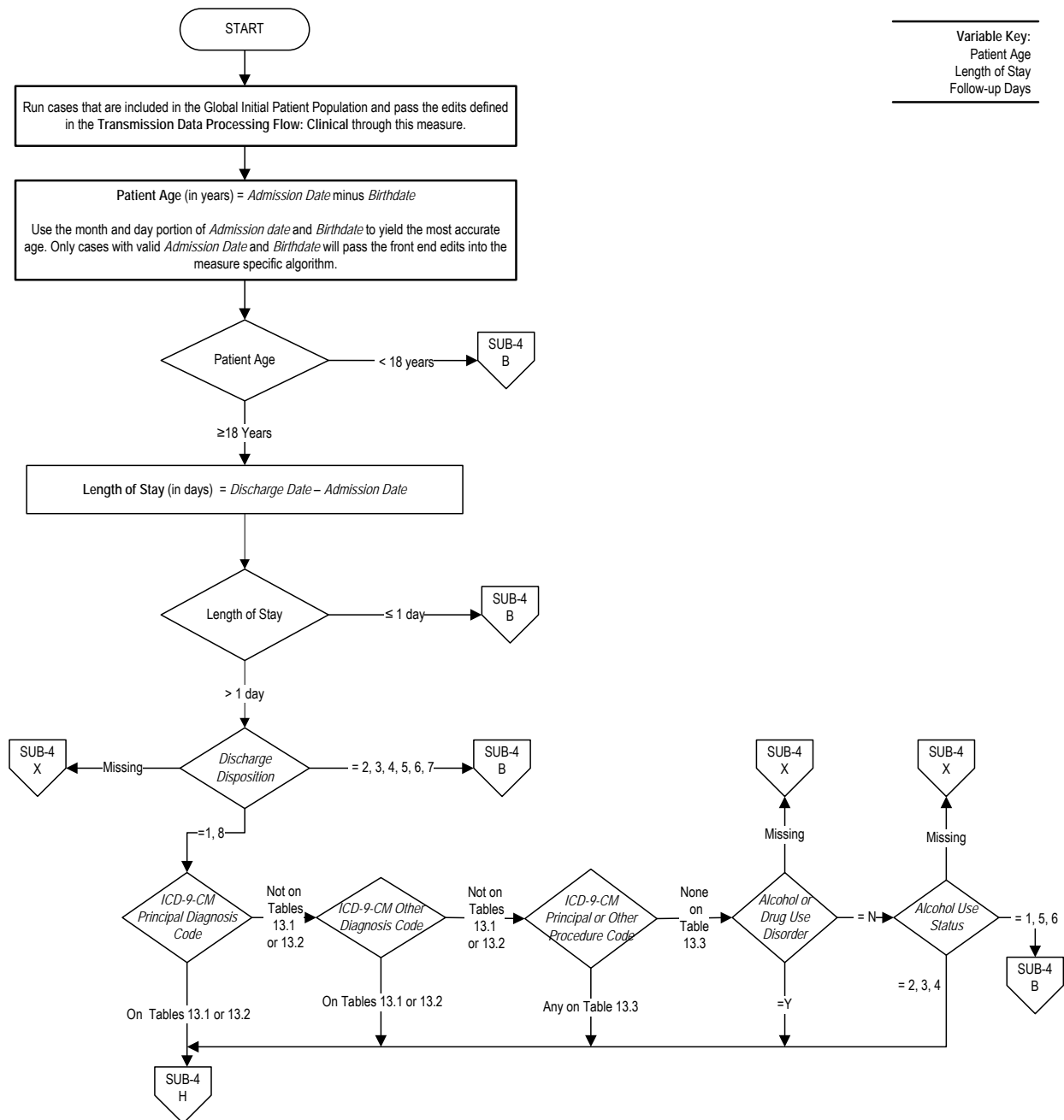
Selected References:
- The National Quality Forum, National Voluntary Consensus Standards for the Treatment of Substance Use Conditions: Evidence-Based Treatment Practices; A Consensus Report; 2007.
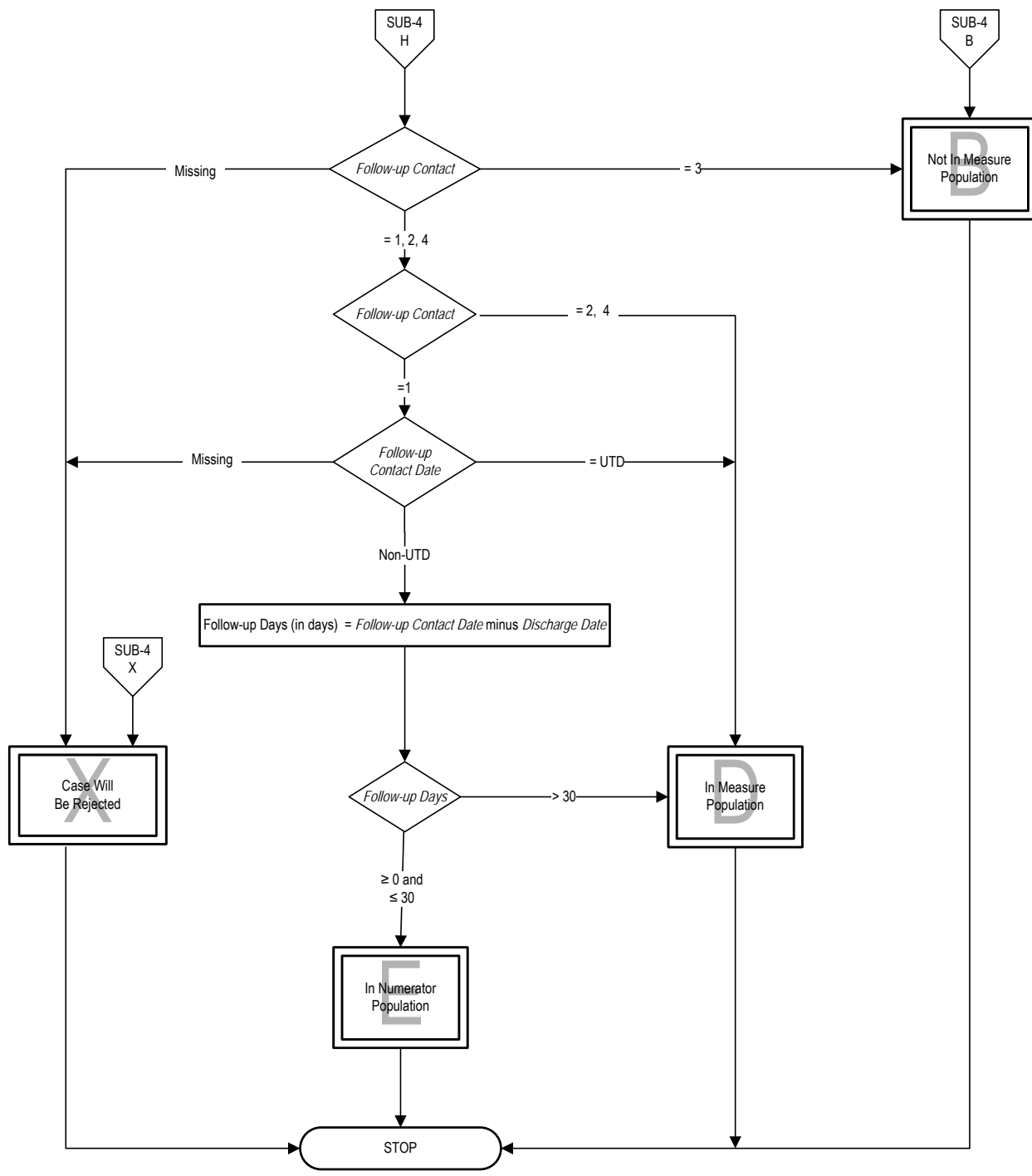
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- Fleming MF, Mundt MP, French MT, Manwell LB, Stauffacher EA, Barry KL. Brief physician advice for problem drinkers: Long-term efficacy and cost-benefit analysis. *Alcohol Clin Exp Res*. 2002 Jan;26(1):36-43.
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- Gentilello LM, Villaveces A, Ries RR, Nason KS, Daranciang E, Donovan DM Copass M, Jurkovich GJ Rivara FP. Detection of acute alcohol intoxication and chronic alcohol dependence by trauma center staff. J Trauma. 1999 Dec;47(6):1131-5; discussion 1135-9.
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- Smothers BA, Yahr HT, Ruhl CE. Detection of alcohol use disorders in general hospital admissions in the United States. *Arch Intern Med*. 2004 Apr 12;164(7):749-56.
- Kirchner JE, Owen RR, Nordquist C, Fischer EP. Diagnosis and management of substance use disorders among inpatients with schizophrenia. *Psychiatric Serv*. 1998 Jan;49(1):82-5.
- Havassy BE, Alvidrez J, Owen KK. Comparisons of patients with comorbid psychiatric and substance use disorders: implications for treatment and service delivery. Am J Psychiatry. 2004 Jan;161(1):139-45.
- Prochaska JJ, Gill PH, Stephen E, Hall SM. Identification and Treatment of Substance Misuse on an Inpatient Psychiatry Unit. *Psychiatric Serv.* 2005 Mar;56(3):347-9.

SUB-4: Alcohol and Drug Use: Assessing Status After Discharge

Numerator: The number of discharged patients who are contacted within 30 days after hospital discharge and follow-up information regarding alcohol or drug use status is collected.

Denominator: The number of discharged patients 18 years of age and older who screened positive for unhealthy alcohol use or who received a diagnosis of alcohol or drug use disorder during their hospital stay.

START

Run cases that are included in the Global Initial Patient Population and pass the edits defined in the **Transmission Data Processing Flow: Clinical** through this measure.

Patient Age (in years) = *Admission Date* minus *Birthdate*

Use the month and day portion of *Admission date* and *Birthdate* to yield the most accurate age. Only cases with valid *Admission Date* and *Birthdate* will pass the front end edits into the measure specific algorithm.

Variable Key:
Patient Age
Length of Stay
Follow-up Days

Patient Age → < 18 years → SUB-4 B

≥18 Years

Length of Stay (in days) = *Discharge Date – Admission Date*

Length of Stay → ≤ 1 day → SUB-4 B

> 1 day

SUB-4 X ← Missing ← *Discharge Disposition* → = 2, 3, 4, 5, 6, 7 → SUB-4 B

=1, 8

ICD-9-CM Principal Diagnosis Code → Not on Tables 13.1 or 13.2 → *ICD-9-CM Other Diagnosis Code* → Not on Tables 13.1 or 13.2 → *ICD-9-CM Principal or Other Procedure Code* → None on Table 13.3 → *Alcohol or Drug Use Disorder* → = N → *Alcohol Use Status* → = 1, 5, 6 → SUB-4 B

Alcohol or Drug Use Disorder → Missing → SUB-4 X

Alcohol Use Status → Missing → SUB-4 X

On Tables 13.1 or 13.2 (Principal Diagnosis)

On Tables 13.1 or 13.2 (Other Diagnosis)

Any on Table 13.3

=Y (Alcohol or Drug Use Disorder)

= 2, 3, 4 (Alcohol Use Status)

SUB-4 H

SUB-4
H

SUB-4
B

Follow-up Contact

Missing

= 3

Not In Measure
Population
B

= 1, 2, 4

Follow-up Contact

= 2, 4

=1

Follow-up
Contact Date

Missing

= UTD

Non-UTD

Follow-up Days (in days) = *Follow-up Contact Date* minus *Discharge Date*

SUB-4
X

Case Will
Be Rejected
X

Follow-up Days

> 30

In Measure
Population
D

≥ 0 and
≤ 30

In Numerator
Population
E

STOP

SUB-4: Alcohol and Drug Use: Assessing Status After Discharge

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Denominator: The number of discharged patients 18 years of age and older who screened positive for unhealthy alcohol use or who received a diagnosis of alcohol or drug use disorder during their hospital stay.

Variable key: Patient Age
Length of Stay
Follow-up Days

1. Start processing. Run cases that are included in the Global Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.

2. Calculate Patient Age. Patient Age, in years, is equal to the Admission Date minus the Birthdate. Use the month and day portion of Admission Date and Birthdate to yield the most accurate age. Only cases with valid Admission Date and Birthdate will pass the front end edits into the measure specific algorithms.

3. Check Patient Age
   a. If Patient Age is less than 18 years, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
   b. If Patient Age is equal to or greater than 18 years, continue processing and proceed to calculate Length of Stay.

4. Calculate Length of Stay. Length of Stay, in days, is equal to the Discharge Date minus the Admission Date.

5. Check Length of Stay
   a. If Length of Stay is equal to or less than 1 day, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
   b. If Length of Stay is greater than 1 day, continue processing and proceed to check Discharge Disposition.

6. Check Discharge Disposition
   a. If Discharge Disposition is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
   b. If Discharge Disposition equals 2, 3, 4, 5, 6 or 7 the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
   c. If Discharge Disposition equals 1 or 8, continue processing and proceed to check ICD-9-CM Principal Diagnosis Code.

7. Check ICD-9-CM Principal Diagnosis Code
   a. If ICD-9-CM Principal Diagnosis Code is not on Table 13.1 or 13.2, continue processing and proceed to check ICD-9-CM Other Diagnosis Code.
   b. If ICD-9-CM Principal Diagnosis Code is on Table 13.1 or 13.2, continue processing and proceed to Step 12 to check Follow-up Contact.

8. Check ICD-9-CM Other Diagnosis Code
   a. If none of the ICD-9-CM Other Diagnosis Code is on Table 13.1 or 13.2, continue processing and proceed to check ICD-9-CM Principal or Other Procedure Code.
   b. If at least one of the ICD-9-CM Other Diagnosis Code is on Table 13.1 or 13.2, continue processing and proceed to Step 12 to check Follow-up Contact.

9. Check ICD-9-CM Principal or Other Procedure Code
   a. If none of the ICD-9-CM Principal or Other Procedure Code is on Table 13.3 continue processing and proceed to check Alcohol or Drug Disorder.
   b. If any of the ICD-9-CM Principal or Other Procedure Code is on Table 13.3, continue processing and proceed to Step 12 to check Follow-up Contact.

10. Check Alcohol or Drug Disorder
   a. If Alcohol or Drug Disorder is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
   b. If Alcohol or Drug Disorder equals No, continue processing and proceed to check Alcohol Use Status.
   c. If Alcohol or Drug Disorder equals Yes, continue processing and proceed to Step 12 to check Follow-up Contact.

11. Check Alcohol Use Status
    a. If Alcohol Use Status is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
    b. If Alcohol Use Status equals 1, 5 or 6, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
    c. If Alcohol Use Status equals 2, 3 or 4, continue processing and proceed to check Follow-up Contact.

12. Check Follow-up Contact
    a. If Follow-up Contact is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
    b. If Follow-up Contact equals 3, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population.
    c. If Follow-up Contact equals 1, 2, or 4, continue processing and proceed to recheck Follow-up Contact.

13. Recheck Follow-up Contact
    a. If Follow-up Contact equals 2 or 4, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
    b. If Follow-up Contact equals 1, continue processing and proceed to check Follow-up Contact Date.

14. Check Follow-up Contact Date
    a. If Follow-up Contact Date is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
    b. If Follow-up Contact Date equals Unable to Determine, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
    c. If Follow-up Contact Date equals a Non Unable to Determine Value, continue processing and proceed to calculate Follow-up Days.

15. Calculate Follow-up Days. Follow-up Days, in days, is equal to the Follow-up Contact Date minus the Discharge Date.

16. Check Follow-up Days
    a.   If Follow-up Days is greater than or equal to zero days and less than or equal to 30 days, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
    b.   If Follow-up Days is greater than 30 days, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.