

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

Measure Set: Substance Use (SUB)

Set Measure ID #: SUB-3

Performance Measure Name:

SUB-3 Alcohol and Other Drug Use Disorder Treatment Provided or Offered at Discharge

SUB-3a Alcohol and Other Drug Use Disorder Treatment at Discharge

Description:

SUB-3 Patients who are identified with alcohol or drug use disorder who receive or refuse at discharge a prescription for FDA-approved medications for alcohol or drug use disorder, OR who receive or refuse a referral for addictions treatment.

SUB-3a Patients who are identified with alcohol or drug disorder who receive a prescription for FDA-approved medications for alcohol or drug use disorder OR a referral for addictions treatment.

The measure is reported as an overall rate which includes all patients to whom alcohol or drug use disorder treatment was provided, or offered and refused, at the time of hospital discharge, and a second rate, a subset of the first, which includes only those patients who received alcohol or drug use disorder treatment at discharge. The Provided or Offered rate (SUB-3) describes patients who are identified with alcohol or drug use disorder who receive or refuse at discharge a prescription for FDA-approved medications for alcohol or drug use disorder, OR who receive or refuse a referral for addictions treatment. The Alcohol and Other Drug Disorder Treatment at Discharge (SUB-3a) rate describes only those who receive a prescription for FDA-approved medications for alcohol or drug use disorder OR a referral for addictions treatment. Those who refused are not included.

Rationale: Excessive use of alcohol and drugs has a substantial harmful impact on health and society in the United States. It is a drain on the economy and a source of enormous personal tragedy (The National Quality Forum, A Consensus Report 2007). In 1998 the economic costs to society were \$185 billion dollars for alcohol misuse, and 143 billion dollars for drug misuse (Harwood 2000). Health care spending was 19 billion dollars for alcohol problems, and 14 billion dollars was spent treating drug problems.

Nearly a quarter of a trillion dollars per year in lost productivity is attributable to substance use. More than 537,000 die each year as a consequence of alcohol, drug,

and tobacco use making use of these substances the cause of one out of four deaths in the United States (Mokdad 2005).

An estimated 22.6 million adolescents and adults meet criteria for a substance use disorder. In a multi-state study that screened 459,599 patients in general hospital and medical settings, 23% of patients screened positive (Madras 2009).

Clinical trials have demonstrated that brief interventions, especially prior to the onset of addiction, significantly improve health and reduce costs, and that similar benefits occur in those with addictive disorders who are referred to treatment (Fleming 2002).

In a study on the provision of evidence-based care and preventive services provided in hospitals for 30 different medical conditions, quality varied substantially according to diagnosis. Adherence to recommended practices for treatment of substance use ranked last, with only 10% of patients receiving proper care (Gentilello 2005). Currently, less than one in twenty patients with an addiction are referred for treatment (Gentilello 1999).

Hospitalization provides a prime opportunity to address the entire spectrum of substance use problems within the health care system (Gentilello 2005, 1999). Approximately 8% of general hospital inpatients and 40 to 60 percent of traumatically-injured inpatients and psychiatric inpatients have substance use disorders (Gentilello 1999).

Type of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement:

SUB-3: The number of patients who received or refused at discharge a prescription for medication for treatment of alcohol or drug use disorder OR received or refused a referral for addictions treatment.

SUB-3a: The number of patients who received a prescription at discharge for medication for treatment of alcohol or drug use disorder OR a referral for addictions treatment.

	SUB-3	SUB-3a
Included Populations:	Patients who refused a prescription for FDA-approved medication for treatment of an alcohol or drug dependence. Patients who refused a referral for addictions treatment.	Not Applicable

	SUB-3	SUB-3a
Excluded Populations:	None	None
Data Elements	<i>Prescriptions for Alcohol or Drug Disorder Medication Referral for Addiction Treatment</i>	<i>Prescriptions for Alcohol or Drug Disorder Medication Referral for Addiction Treatment</i>

Denominator Statement: The number of hospitalized inpatients 18 years of age and older identified with an alcohol or drug use disorder.

Included Populations:

- Patients with ICD-9-CM Principal or Other Diagnosis Code for alcohol or drug use disorder listed on Table 13.1 and 13.2.
- Patients with a Principal or Other ICD-9-CM Procedure Code listed on Table 13.3
- Patients with a progress or discharge note indicating drug or alcohol use disorder

Excluded Populations:

- Patients less than 18 years of age
- Patient drinking at unhealthy levels who do not meet criteria for an alcohol use disorder
- Patients who are cognitively impaired
- Patients who expire
- Patients discharged to another hospital
- Patients who left against medical advice
- Patients discharged to another healthcare facility
- Patients discharged to home for hospice care
- Patients who have a duration of stay less than or equal to one day and greater than 120 days
- Patients who do not reside in the United States

Data Elements:

- *Admission Date*
- *Alcohol Or Drug Disorder*
- *Birthdate*
- *Cognitive Impairment*
- *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.

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.

Variation may exist in the assignment of ICD-9-CM codes; therefore, coding practices may require evaluation to ensure consistency.

Measure Analysis Suggestions: Hospitals may wish to analyze data to show patients that refused both a medication prescription and referral and those who refused only one or the other.

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.
- Harwood, HJ, 2000. Updating Estimates of the Economic Costs of Alcohol Abuse in the United States. National Institute on Alcohol Abuse and Alcoholism. Available from: <http://pubs.niaaa.nih.gov/publications/economic-2000/>, Office of National Drug Control Policy. The Economic Costs of Drug Abuse in the United States: 1992–2002. Washington, DC: Executive Office of the President (Publication No. 207303), 2004.
- Mokdad AH, Marks JS, Stroup DS, Gerberding JL. Actual Causes of Death in the United States, 2000. *JAMA*. 2004 Mar 10;291(10):1238-45 (Erratum in: *JAMA*. 2005 Jan 19;293(3):293-4.)
- Madras BK, Compton WM, Avula D, Stegbauer T, Stein JB, Clark HW. Screening, brief interventions, referral to treatment (SBIRT) for illicit drug and alcohol use at multiple healthcare sites: Comparison at intake and 6 months later. *Drug Alcohol Depend*. 2009 Jan 1;99(1-3):280-95. Epub 2008 Oct 16.
- 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.

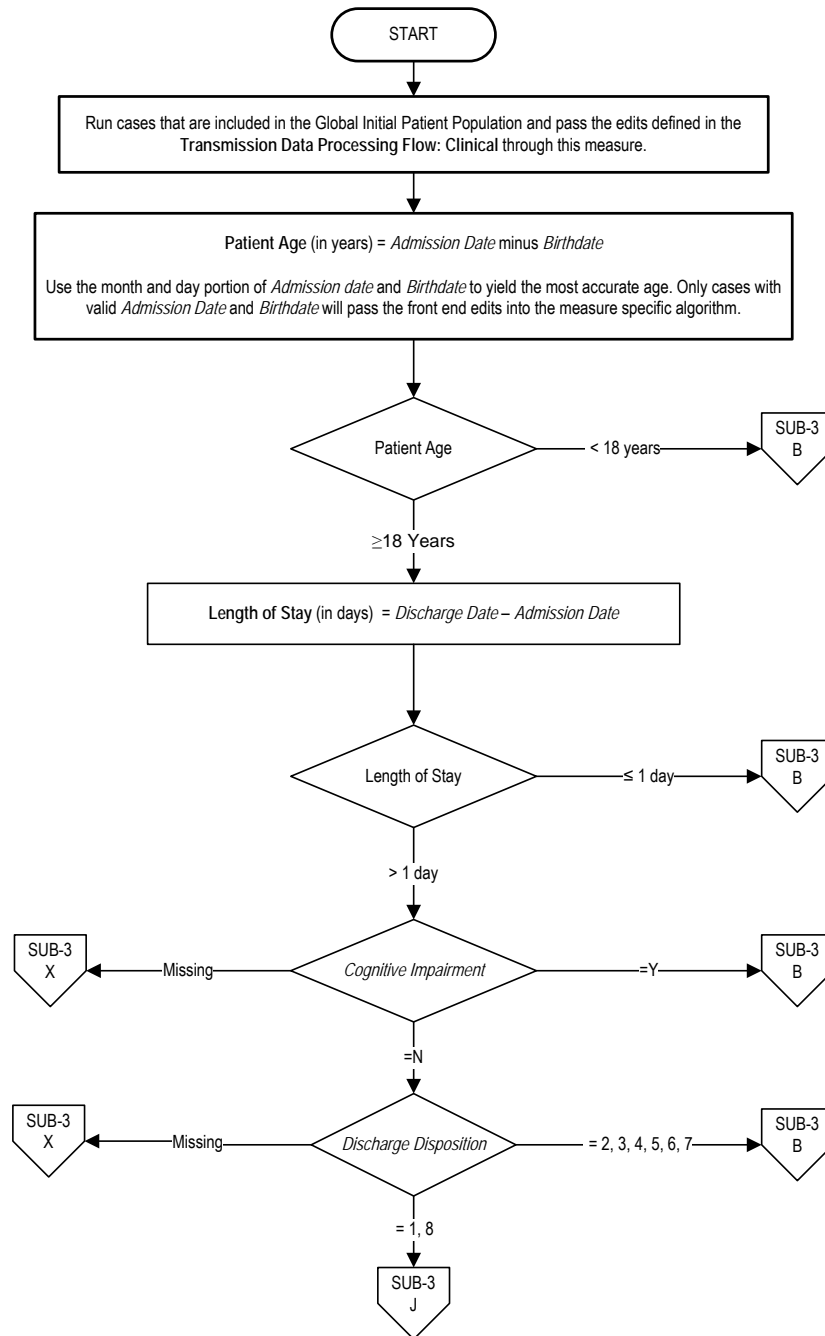
- Gentilello LM, Ebel BE, Wickizer TM, Salkever DS Rivera FP. Alcohol interventions for trauma patients treated in emergency departments and hospitals: A cost benefit analysis. *Ann Surg.* 2005 Apr;241(4):541-50.
- Gentilello LM, Villaveces A, Ries RR, Nason KS, Daranciang E, Donovan DM Copass M, Jurkovich 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.
- Bernstein J, Bernstein E, Tassiopoulos K, Heren T, Levenson S, Hingson R. Brief motivational interventions at a clinic visit reduces cocaine and heroin use. *Drug Alcohol Depend.* 2005 Jan 7;77(1):49-59.
- McGlynn EA, Asch SM, Adams J. The Quality of Healthcare Delivered to Adults in the United States. *N Engl J Med.* 2003 Jun 26;348(26):2635-45.
- 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. *Psychiatr 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. *Psychiatr Serv.* 2005 Mar;56(3):347-9.

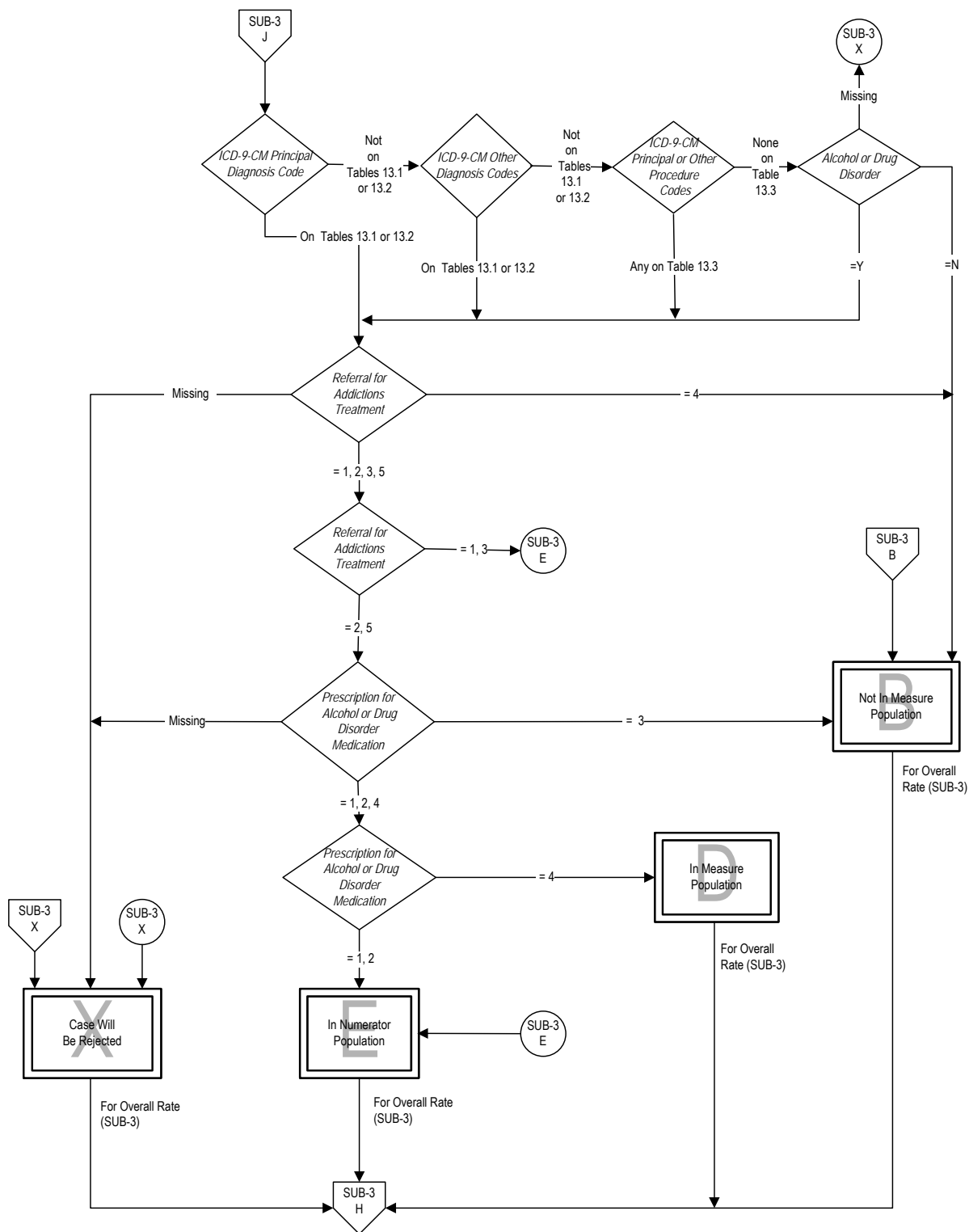
SUB-3: Alcohol and Other Drug Use Disorder Treatment Provided or Offered at Discharge

Numerator: The number of patients who received or refused at discharge a prescription for medication for treatment of alcohol or drug use disorder OR received or refused a referral for addictions treatment.

Denominator: The number of hospitalized inpatients 18 years of age and older identified with an alcohol or drug use disorder.

Variable Key:
Patient Age
Length of Stay

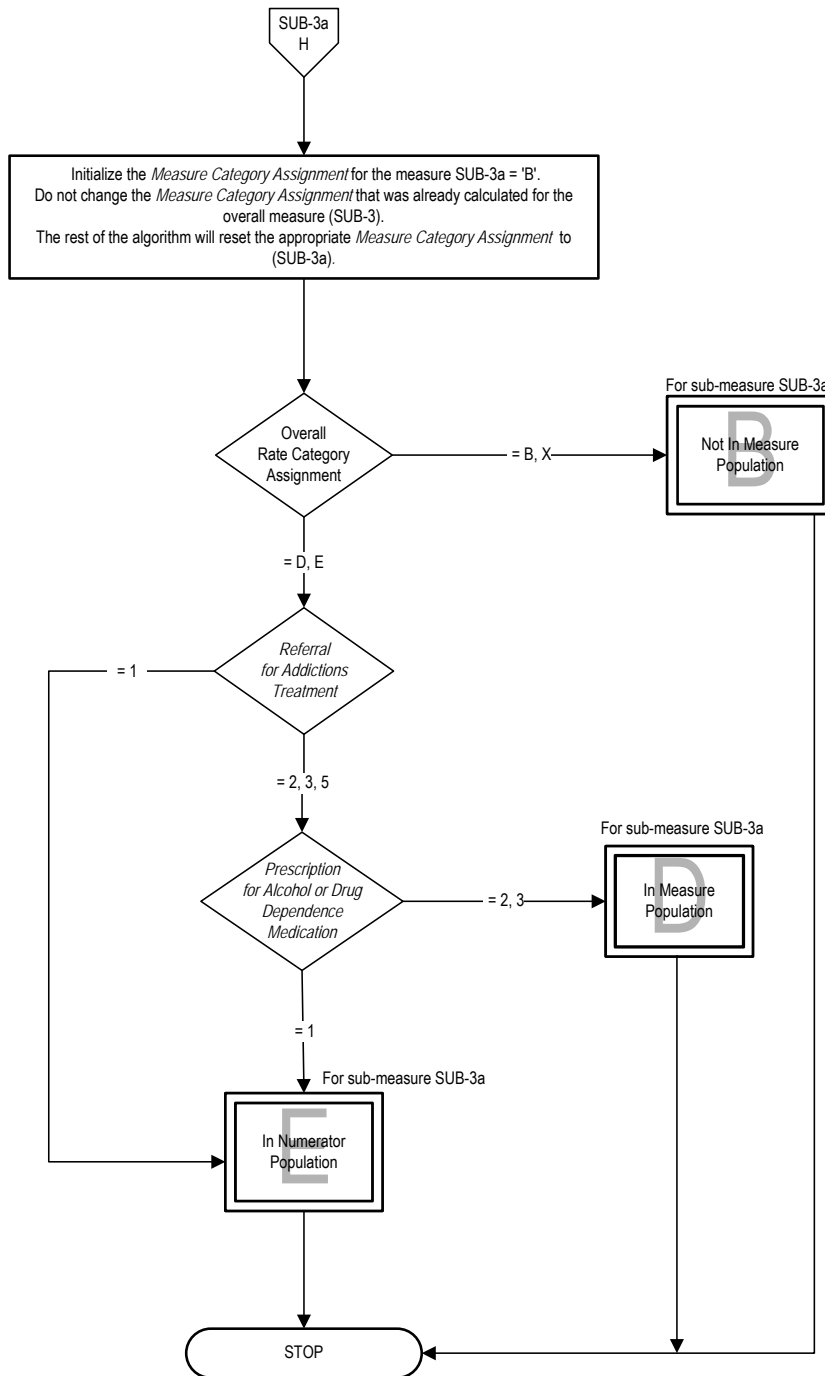




SUB-3a: Alcohol and Other Drug Use Disorder Treatment at Discharge

Numerator: The number of patients who received a prescription at discharge for medication for treatment of alcohol or drug use disorder OR a referral for addictions treatment.

Denominator: The number of hospitalized inpatients 18 years of age and older identified with an alcohol or drug use disorder.



SUB-3: Alcohol and Other Drug Use Disorder Treatment Provided or Offered at Discharge

Numerator: The number of patients who received or refused at discharge a prescription for medication for treatment of alcohol or drug use disorder OR received or refused a referral for addictions treatment.

Denominator: The number of hospitalized inpatients 18 years of age and older identified with an alcohol or drug use disorder.

Variable key: Patient Age
Length of Stay

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 for overall rate SUB-3 and will not be in the Measure Population. Continue processing and proceed to Step 16 to Initialize Measure Category Assignment for sub-measure SUB-3a.
 - b. If Patient Age is equal to or greater than 18 years, continue processing and proceed to calculate of 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 for overall rate SUB-3 and will not be in the Measure Population. Continue processing and proceed to Step 16 to Initialize Measure Category Assignment for sub-measure SUB-3a.
 - b. If Length of Stay is greater than 1 day, continue processing and proceed to check Cognitive Impairment.

6. Check Cognitive Impairment
 - a. If Cognitive Impairment is missing, the case will proceed to a Measure Category Assignment of X for overall rate SUB-3 and will be rejected. Continue processing and proceed to Step 16 to Initialize Measure Category Assignment for sub-measure SUB-3a.
 - b. If Cognitive Impairment equals Yes, the case will proceed to a Measure Category Assignment of B for overall rate SUB-3 and will not be in the Measure Population. Continue processing and proceed to Step 16 to Initialize Measure Category Assignment for sub-measure SUB-3a.
 - c. If Cognitive Impairment equals No, continue processing and proceed to check Discharge Disposition.

7. Check Discharge Disposition
 - a. If Discharge Disposition is missing, the case will proceed to a Measure Category Assignment of X for overall rate SUB-3 and will be rejected. Continue processing and proceed to Step 16 to Initialize Measure Category Assignment for sub-measure SUB-3a.
 - b. If Discharge Disposition equals 2, 3, 4, 5, 6 or 7, the case will proceed to a Measure Category Assignment of B for overall rate SUB-3 and will not be in the Measure Population. Continue processing and proceed to Step 16 to Initialize Measure Category Assignment for sub-measure SUB-3a.
 - c. If Discharge Disposition equals 1 or 8, continue processing and proceed to check ICD-9-CM Principal Diagnosis Code.

8. 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 check Referral for Addictions Treatment.

9. Check ICD-9-CM Other Diagnosis Code
 - a. If none of the ICD-9-CM Other Diagnosis Code(s) are 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(s) is on Table 13.1 or 13.2, continue processing and proceed to check Referral for Addictions Treatment.

10. 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 check Referral for Addictions Treatment.

11. Check Alcohol or Drug Disorder
 - a. If Alcohol or Drug Disorder is missing, the case will proceed to a Measure Category Assignment of X for overall rate SUB-3 and will be rejected. Continue processing and proceed to Step 16 to Initialize Measure Category Assignment for sub-measure SUB-3a.
 - b. If Alcohol or Drug Disorder equals No, the case will proceed to a Measure Category Assignment of B for overall rate SUB-3 and will not be in the Measure Population. Continue processing and proceed to Step 16 to Initialize Measure Category Assignment for sub-measure SUB-3a.
 - c. If Alcohol or Drug Disorder equals Yes, continue processing and proceed to check Referral for Addictions Treatment.

12. Check Referral for Addictions Treatment
 - a. If Referral for Addictions Treatment is missing, the case will proceed to a Measure Category Assignment of X for overall rate SUB-3 and will be rejected. Continue processing and proceed to Step 16 to Initialize Measure Category Assignment for sub-measure SUB-3a.
 - b. If Referral for Addictions Treatment equals 4, the case will proceed to a Measure Category Assignment of B for overall rate SUB-3 and will not be in the Measure Population. Continue processing and proceed to Step 16 to Initialize Measure Category Assignment for sub-measure SUB-3a.
 - c. If Referral for Addictions Treatment equals 1, 2, 3 or 5, continue processing and proceed to recheck Referral for Addictions Treatment.

13. Recheck Referral for Addictions Treatment
 - a. If Referral for Addictions Treatment equals 1 or 3, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population for the overall measure rate (SUB-3). Continue processing and proceed to Step 16 to Initialize Measure Category Assignment for sub-measure SUB-3a.
 - b. If Referral for Addictions Treatment equals 2 or 5, continue processing and proceed to check Prescription for Alcohol or Drug Disorder Medication.

14. Check Prescription for Alcohol or Drug Disorder Medication
 - a. If Prescription for Alcohol or Drug Disorder Medication is missing, the case will proceed to a Measure Category Assignment of X for overall rate SUB-3 and will be rejected. Continue processing and proceed to Step 16 to Initialize Measure Category Assignment for sub-measure SUB-3a.
 - b. If Prescription for Alcohol or Drug Disorder Medication equals 3, the case will proceed to a Measure Category Assignment of B for overall rate SUB-3 and will not be in the Measure Population. Continue processing and proceed to Step 16 to Initialize Measure Category Assignment for sub-measure SUB-3a.
 - c. If Prescription for Alcohol or Drug Disorder Medication equals 1, 2 or 4, continue processing and proceed to recheck Prescription for Alcohol or Drug Disorder Medication.

15. Recheck Prescription for Alcohol or Drug Disorder Medication
 - a. If Prescription for Alcohol or Drug Disorder Medication equals 4, the case will proceed to Measure Category Assignment of D and will be in the Measure Population for the overall measure rate (SUB-3). Continue processing and proceed to Step 16 to Initialize Measure Category Assignment for sub-measure SUB-3a.
 - b. If Prescription for Alcohol or Drug Disorder Medication equals 1 or 2, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population for the overall measure rate (SUB-3). Continue processing and proceed to Step 16 to Initialize Measure Category Assignment for sub-measure SUB-3a.

SUB-3a: Alcohol and Other Drug Use Disorder Treatment at Discharge

Numerator: The number of patients who received a prescription at discharge for medication for treatment of alcohol or drug use disorder OR a referral for addictions treatment.

Denominator: The number of hospitalized inpatients 18 years of age and older identified with alcohol or drug disorder.

16. Initialize the Measure Category Assignment for the sub-measure SUB-3a to Measure Category Assignment B. Do not change the Measure Category Assignment that was already calculated for the overall measure SUB-3. The rest of the algorithm will reset the appropriate Measure Category Assignment to SUB-3a.
17. Check Overall Rate Category Assignment
 - a. If Overall Rate Category Assignment equals B or X, the case will proceed to a Measure Category Assignment of B for sub-measure SUB-3a and will not be in the Measure Population. Stop processing.
 - b. If Overall Rate Category Assignment equals D or E, continue processing and proceed to recheck Referral for Addictions Treatment.
18. Recheck Referral for Addictions Treatment
 - a. If Referral for Addictions Treatment equals 1, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population for sub-measure SUB-3a. Stop processing.
 - b. If Referral for Addictions Treatment equals 2, 3, 4 or 5, continue processing and proceed to recheck Prescription for Alcohol or Drug Dependence Medication.
19. Recheck Prescription for Alcohol or Drug Dependence Medication
 - a. If Prescription for Alcohol or Drug Dependence Medication equals 2 or 3, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population for sub-measure SUB-3a. Stop processing.
 - b. If Prescription for Alcohol or Drug Dependence Medication equals 1, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population for sub-measure SUB-3a. Stop processing.