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

Measure Set: Substance Use (SUB)

Set Measure ID #: SUB-1

Performance Measure Name: Alcohol Use Screening

Description: Hospitalized patients who are screened during the hospital stay using a validated screening questionnaire for unhealthy alcohol use.

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, 2007). In 1998 the economic costs to society were 185 billion dollars for alcohol misuse and 143 billion dollars was attributable to drug problems (Harwood, 2000). Health care spending was $19 billion for alcohol problems, and $14 billion for drug problems. Nearly a quarter of one trillion dollars in lost productivity is attributable to substance use. More than 537,000 persons died as a consequence of alcohol, drug, and tobacco use, making them the cause of over one out of four deaths in the United States (Mokdad, 2004).

An estimated 22.6 million adolescents and adults meet criteria for a substance use disorder, but addiction or dependence is not the most common type of problem. In a multi-state study that screened 459,599 patients in general hospital and medical settings, 23% screened 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 (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 (SAMHSA 2007, NIAAA 2005, Fleming 2002).

Patients with substance-use problems have a greater risk for serious injury and over 50 medical problems including hypertension, GI bleeding, depression, stroke, dementia, cirrhosis, multiple forms of cancer, dysrhythmias, and infections such as tuberculosis, hepatitis, endocarditis, and HIV (NIAAA, A Clinician's Guide, 2005).

Hospitalization provides a prime opportunity to address substance use, and for many patients, controlling their other health problems requires addressing their substance use (Fleming 2002).

Type of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement: The number of patients who were screened for alcohol use using a validated screening questionnaire for unhealthy drinking.

    Included Populations:
- Patients with a blood alcohol test indicative of acute intoxication
- Patients who refused screening

    Excluded Populations: None

    Data Elements:
- *Alcohol Use Status*

Denominator Statement: The number of hospitalized inpatients 18 years of age and older.

    Included Populations: Not Applicable

    Excluded Populations:
- Patients less than 18 years of age
- Patients who are cognitively impaired
- Patients who have a duration of stay less than or equal to one day and greater than 120 days

    Data Elements:
- *Admission Date*
- *Birthdate*
- *Cognitive Impairment*
- *Discharge Date*

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.

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 data to show the rate of those who were actually screened for alcohol use status, subtracting those that refused the screen.

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.
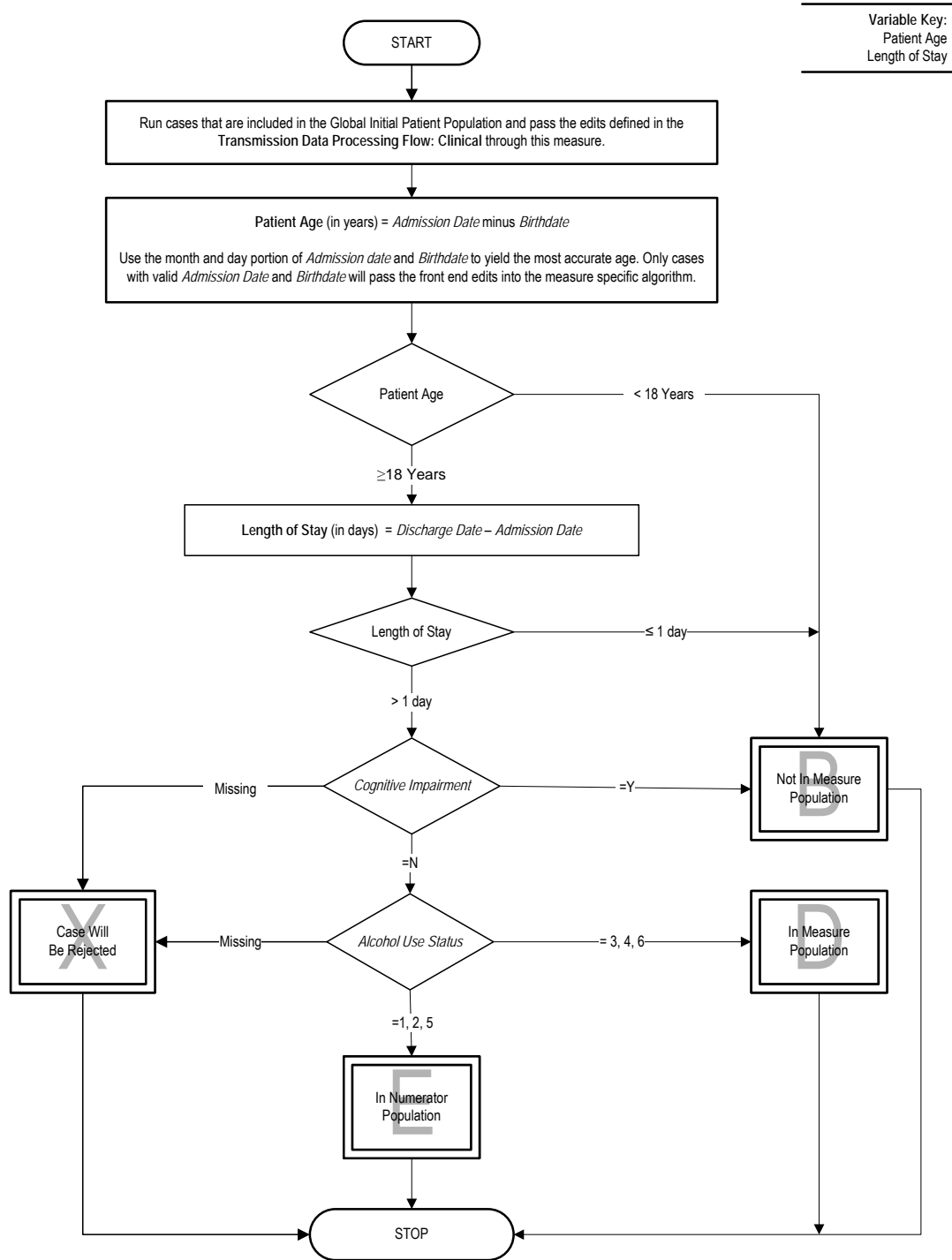
Selected References:
- The National Quality Forum, National Voluntary Consensus Standards for the Treatment of Substance Use Conditions: Evidence-Based Treatment Practices; A Consensus Report; 2007.
- Harwood, HJ, 2000. Updating Estimates of the Economic Costs of Alcohol Abuse in the United States. National Institute on Alcohol Abuse and Alcoholism. Available at: 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, Geberding JL. Actual Causes of Death in the United States, 2000. *JAMA* 2004;291:128-1245.
- Madras BK, Compton WM, Avula D, Stegbauer T, Stein JB, Clark HW. Screening, Brief Intervention, Referral to Treatment (SBIRT) for Illicit Drug and Alcohol Use at Multiple Health Care Sites: Comparison at Intake and Six Months Later. *Drug Alcohol Depend.* 2009;99:280-295.
- (SAMHSA) Substance Abuse and Mental Health Services Administration. Results from the 2006 National Survey on Drug Use and Health: National Findings. Office of Applied Studies, NSDUH Series H-32, DHHS Publication No. SMA 07-4293. Rockville, 2007.
- (NIAAA) National Institute on Alcohol Abuse and Alcoholism (NIAAA), Helping Patients Who Drink Too Much: A Clinician's Guide, 2005 Edition, Rockville, MD.
- 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.

- 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.
- Rehm J, Room R, Graham K, Monteiro M, Gmel G, Sempos CT. The relationship of average volume of alcohol consumption and patterns of drinking to burden of disease: An overview. *Addiction*. 2003 Sep;98(9):1209-28.
- Smothers BA, Yahr HT, Sinclair MD. (). Prevalence of current DSM-IV alcohol use disorders in short-stay, general hospital admissions, United States, 1994. *Arch Intern Med*. 2003 Mar 24;163(6):713-9.
- 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.

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Numerator: The number of patients who were screened for alcohol use using a validated screening questionnaire for unhealthy drinking.

Denominator: The number of hospitalized inpatients 18 years of age and older

Variable Key:
Patient Age
Length of 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.

Patient Age

< 18 Years

≥18 Years

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

Length of Stay

≤ 1 day

> 1 day

Cognitive Impairment

Missing

=Y

Not In Measure Population
B

=N

Case Will Be Rejected
X

Missing

Alcohol Use Status

= 3, 4, 6

In Measure Population
D

=1, 2, 5

In Numerator Population
E

STOP

SUB-1: Alcohol Use Screening

Numerator: The number of patients who were screened for alcohol use using a validated screening questionnaire for unhealthy drinking.

Denominator: The number of hospitalized inpatients 18 years of age and older.

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 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 Cognitive Impairment.

6.   Check Cognitive Impairment
      a.   If Cognitive Impairment is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

      b.   If Cognitive Impairment equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

      c.   If Cognitive Impairment equals No, continue processing and proceed to check Alcohol Use Status.

7.   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, 2, or 5 the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

      c.   If Alcohol Use Status equals 3, 4, or 6, the case will proceed to Measure Category Assignment of D and will be in the Measure Population. Stop processing.