

eMeasure Title	Alcohol Use Brief Intervention Provided or Offered (SUB-2) / Alcohol Use Brief Intervention Provided (SUB-2a)		
eMeasure Identifier (Measure Authoring Tool)	574	eMeasure Version number	0.0.023
NQF Number	None	GUID	9317e856-562b-4e96-b9ea-7789691a0d0b
Measurement Period	January 1, 20XX through December 31, 20XX		
Measure Steward	The Joint Commission		
Measure Developer	Mathematica Policy Research		
Measure Developer	Office of the Assistant Secretary for Planning and Evaluation (ASPE)		
Measure Developer	RTI International		
Endorsed By	None		
Description	<p>SUB-2: This measure assesses the proportion of hospitalized adult patients who screened positive for unhealthy alcohol use and received or refused a brief intervention within three days before or any time during the inpatient admission.</p> <p>SUB-2a: This measure assesses the proportion of hospitalized adult patients who screened positive for unhealthy alcohol use and received a brief intervention within three days before or any time during the inpatient admission.</p>		
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Disclaimer	<p>These performance measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications. The measures and specifications are provided without warranty.</p>		
Measure Scoring	Proportion		
Measure Type	Process		
Measure Item Count	Encounter, Performed: Encounter Inpatient		
Stratification	None		
Risk Adjustment	None		
Rate Aggregation	None		

eMeasure Title	Alcohol Use Brief Intervention Provided or Offered (SUB-2) / Alcohol Use Brief Intervention Provided (SUB-2a)
Rationale	<p>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 (National Quality Forum 2007). In 1998, the economic costs to society were \$185 billion for alcohol misuse and \$143 billion for drug misuse (Harwood 2000). Health care spending was \$19 billion for alcohol problems and \$14 billion for drug problems.</p> <p>Nearly one-quarter of \$1 trillion 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 the use of these substances the cause of one out of four deaths in the United States (Mokdad et al. 2004).</p> <p>An estimated 22.6 million adolescents and adults meet criteria for a substance use disorder. In a multistate study that screened 459,599 patients in general hospital and medical settings, 23 percent of patients screened positive (Madras et al. 2009).</p> <p>Clinical trials have demonstrated that brief interventions, especially before the onset of addiction, significantly improve health and reduce costs, and similar benefits occur in those with addictive disorders who are referred to treatment (Fleming et al. 2002).</p> <p>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 percent of patients receiving proper care (Gentilello et al. 2005). Currently, fewer than one in 20 patients with an addiction are referred for treatment (Gentilello et al. 1999).</p> <p>Hospitalization provides a prime opportunity to address the entire spectrum of substance use problems within the health care system (Bernstein et al. 2005).</p>
Clinical Recommendation Statement	<p>Clinical trials have demonstrated that brief interventions, especially before the onset of addiction, significantly improve health and reduce costs (Fleming et al. 2002). Brief interventions focus on increasing the patient's understanding of the impact of substance use on his or her health and motivating the patient to change risky behaviors. The components of the intervention include feedback concerning the quantity and frequency of alcohol consumed by the patient in comparison with national norms; a discussion of negative physical, emotional, and occupational consequences; and a discussion of the overall severity of the problem. The qualified health care professional engages the patient in a joint decision-making process regarding alcohol use; the health care professional and patient discuss and agree to plan for follow-up. Brief intervention corresponds directly with the 5 As (Ask, Advise, Assess, Assist, Arrange) recommended for alcohol dependence.</p>
Improvement Notation	Improvement noted as an increase in rate
Reference	Bernstein J, Bernstein E, Tassiopoulos K, Heeren T, Levenson S, Hingson R. Brief motivational interventions at a clinic visit reduces cocaine and heroin use. <i>Drug Alcohol Depend.</i> 2005 Jan 7;77(1):49–59.
Reference	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. <i>Alcohol Clin Exp Res.</i> 2002 Jan;26(1):36–43.
Reference	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. <i>Ann Surg.</i> 2005 Apr;241(4):541–50.

eMeasure Title	Alcohol Use Brief Intervention Provided or Offered (SUB-2) / Alcohol Use Brief Intervention Provided (SUB-2a)
Reference	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.
Reference	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/
Reference	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.
Reference	Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual Causes of Death in the United States, 2000. JAMA. 2004 Mar 10;291(10):1238-45.
Reference	National Institute on Drug Abuse. Archives. The Economic Costs of Drug Abuse in the United States: 1992-2002. Available at https://www.ncjrs.gov/ondcppubs/publications/pdf/economic_costs.pdf . Accessed June 23, 2016.
Reference	National Quality Forum, National Voluntary Consensus Standards for the Treatment of Substance Use Conditions: Evidence-Based Treatment Practices; A Consensus Report; 2007.
Reference	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.
Definition	<p>A patient at moderate or high risk for unhealthy alcohol use is defined by the following criteria:</p> <ul style="list-style-type: none"> *The patient receives a score of 8 or more on the AUDIT tool. *The patient is a woman who receives a score of 3 or more on the AUDIT-C tool. However, if all of the points are captured in question 1 (the patient has 0s for questions 2 and 3), then the patient should not be categorized as at moderate or high risk. * The patient is a man who receives a score of 4 or more on the AUDIT-C tool. However, if all of the points are captured in question 1 (the patient has 0s for questions 2 and 3), then the patient should not be categorized as at moderate or high risk. *The patient receives a score of 3 or greater on the TWEAK tool. * The patient is identified as intoxicated through a positive clinical laboratory test indicating alcohol intoxication. <p>To provide flexibility in workflows and data capture, the numerator can be identified as the completion of a brief intervention without indication of which components of the brief intervention were performed or who conducted the intervention.</p>

eMeasure Title	Alcohol Use Brief Intervention Provided or Offered (SUB-2) / Alcohol Use Brief Intervention Provided (SUB-2a)
Guidance	<p>The logic that accounts for a time frame of 3 days prior to admission is intended as a timing approximation, primarily to account for events that may occur after hospital arrival but before inpatient admission (e.g., when the patient is in the emergency department or observation status). Events occurring before hospital arrival but within the 3-day time frame are technically allowable for this logic construct (e.g., telephone screening for planned admissions). There is no expectation that the timing constraint would reframe the interpretation or otherwise adjust the inherent meaning of QDM data types. For instance, there would be no expectation that a medication administered before hospital arrival would be captured.</p> <p>Patients who are cognitively impaired due to reasons other than substance use will be excluded from this measure's denominator because these patients will not be able to answer the alcohol use screening tool effectively and thus will not qualify for inclusion in the denominator population.</p> <p>The denominator logic allows for multiple modeling options for capturing patients who are at moderate or high risk of unhealthy alcohol use to support the variability in existing workflows/data capture:</p> <ul style="list-style-type: none"> * Score on the AUDIT screening tool * Score on the AUDIT-C screening tool * Score on the TWEAK screening tool * Result of a clinical laboratory test
Transmission Format	TBD
Initial Population	Patients ages 18 years and older discharged from inpatient care during the measurement period with a length of stay greater than 1 day and less than or equal to 120 days.
Denominator	Patients who screen as being of moderate or high risk for unhealthy alcohol use.
Denominator Exclusions	<p>Patients with comfort measures documented within 3 days prior to or anytime during admission.</p> <p>A diagnosis indicative of impaired cognition that overlaps with the encounter.</p> <p>Patients with documentation of impaired cognition within 3 days prior through 1 day after admission, as evidenced by:</p> <ul style="list-style-type: none"> * An assessment of the patient's cognitive status * Explicit documentation of impaired cognition
Numerator	<p>SUB-2: Patients who are at moderate to high risk for unhealthy alcohol use and received or refused a brief intervention within three days before or any time during inpatient admission.</p> <p>SUB-2a: Patients who are at moderate to high risk for unhealthy alcohol use and received a brief intervention within three days before or any time during inpatient admission.</p>
Numerator Exclusions	Not applicable
Denominator Exceptions	None
Supplemental Data Elements	For every patient evaluated by this measure also identify payer, race, ethnicity and sex.

Table of Contents

- [Population Criteria](#)
- [Data Criteria \(QDM Variables\)](#)
- [Data Criteria \(QDM Data Elements\)](#)
- [Supplemental Data Elements](#)
- [Risk Adjustment Variables](#)

Population Criteria

----- Population Criteria 1 -----

- **Initial Population =**
 - # SUB-2
 - AND: Age >= 18 year(s) at: Occurrence A of \$EncounterInpatient
 - AND: Intersection of:
 - Occurrence A of \$EncounterInpatient
 - "Encounter, Performed: Encounter Inpatient (length of stay > 1 day(s))"
- **Denominator =**
 - AND: Initial Population
 - AND:
 - # High or Moderate Risk Identified Through AUDIT
 - OR: "Assessment, Performed: AUDIT Tool LOINC Value Set" satisfies all:
 - (result >= 8)
 - satisfies any:
 - <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - <= 1 day(s) starts after or concurrent with start of Occurrence A of \$EncounterInpatient
 - OR:
 - # High or Moderate Risk Identified Through AUDIT-C for female and then male
 - AND: "Patient Characteristic Sex: Female"
 - AND: "Assessment, Performed: AUDIT C Tool LOINC Value Set" satisfies all:
 - (result >= 3)
 - satisfies any:
 - <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - <= 1 day(s) starts after or concurrent with start of Occurrence A of \$EncounterInpatient
 - OR:
 - AND: "Patient Characteristic Sex: Male"
 - AND: "Assessment, Performed: AUDIT C Tool LOINC Value Set" satisfies all:
 - (result >= 4)
 - satisfies any:
 - <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - <= 1 day(s) starts after or concurrent with start of Occurrence A of \$EncounterInpatient
 - # High or Moderate Risk Identified Through TWEAK
 - OR: "Assessment, Performed: TWEAK Tool LOINC Value Set" satisfies all:
 - (result >= 3)
 - satisfies any:
 - <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - <= 1 day(s) starts after or concurrent with start of Occurrence A of \$EncounterInpatient

- # *Alcohol Use Screening Completed Through a Blood Test*
 - OR: "Laboratory Test, Performed: BH Blood alcohol test" satisfies any:
 - (result: Alcohol Intoxication) <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - (result: Alcohol Intoxication) starts during Occurrence A of \$EncounterInpatient
 - # *Alcohol Use Screening Completed Through an Alcohol Test*
 - OR: "Laboratory Test, Performed: Drug and Alcohol Test" satisfies any:
 - (result: Alcohol Intoxication) <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - (result: Alcohol Intoxication) starts during Occurrence A of \$EncounterInpatient
- **Denominator Exclusions =**
 - OR: \$InterventionComfortMeasures <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - OR: \$InterventionComfortMeasures starts during Occurrence A of \$EncounterInpatient
 - OR:
 - AND:
 - OR: "Physical Exam, Performed: Cognitive Status" satisfies all:
 - (result: Impaired Cognition)
 - <= 1 day(s) starts after or concurrent with start of Occurrence A of \$EncounterInpatient
 - OR: "Diagnosis: Cognitive and Psychiatric Disorders Indicative of Impaired Cognition" overlaps Occurrence A of \$EncounterInpatient
 - OR: Intersection of:
 - Occurrence A of \$EncounterInpatient
 - "Encounter, Performed: Encounter Inpatient (diagnosis: Cognitive and Psychiatric Disorders Indicative of Impaired Cognition)"
- **Numerator =**
 - AND:
 - # *Counseling provided or refused*
 - OR: "Intervention, Performed: Alcohol Brief Intervention" satisfies any:
 - <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - starts during Occurrence A of \$EncounterInpatient
 - OR: "Intervention, Performed not done: Patient Refusal" for "Alcohol Brief Intervention" <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - OR: "Intervention, Performed not done: Patient Refusal" for "Alcohol Brief Intervention" starts during Occurrence A of \$EncounterInpatient
- **Numerator Exclusions =**
 - None
- **Denominator Exceptions =**
 - None
- **Stratification =**
 - None

----- Population Criteria 2 -----

- **Initial Population =**
 - # *SUB-2*
 - AND: Age >= 18 year(s) at: Occurrence A of \$EncounterInpatient
 - AND: Intersection of:
 - Occurrence A of \$EncounterInpatient
 - "Encounter, Performed: Encounter Inpatient (length of stay > 1 day(s))"
- **Denominator =**
 - AND: Initial Population
 - AND:
 - # *High or Moderate Risk Identified Through AUDIT*
 - OR: "Assessment, Performed: AUDIT Tool LOINC Value Set" satisfies all:
 - (result >= 8)
 - satisfies any:

- <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - <= 1 day(s) starts after or concurrent with start of Occurrence A of \$EncounterInpatient
 - OR:
 - # High or Moderate Risk Identified Through AUDIT-C for female and then male
 - AND: "Patient Characteristic Sex: Female"
 - AND: "Assessment, Performed: AUDIT C Tool LOINC Value Set" satisfies all:
 - (result >= 3)
 - satisfies any:
 - <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - <= 1 day(s) starts after or concurrent with start of Occurrence A of \$EncounterInpatient
 - OR:
 - AND: "Patient Characteristic Sex: Male"
 - AND: "Assessment, Performed: AUDIT C Tool LOINC Value Set" satisfies all:
 - (result >= 4)
 - satisfies any:
 - <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - <= 1 day(s) starts after or concurrent with start of Occurrence A of \$EncounterInpatient
 - # High or Moderate Risk Identified Through TWEAK
 - OR: "Assessment, Performed: TWEAK Tool LOINC Value Set" satisfies all:
 - (result >= 3)
 - satisfies any:
 - <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - <= 1 day(s) starts after or concurrent with start of Occurrence A of \$EncounterInpatient
 - # Alcohol Use Screening Completed Through a Blood Test
 - OR: "Laboratory Test, Performed: BH Blood alcohol test" satisfies any:
 - (result: Alcohol Intoxication) <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - (result: Alcohol Intoxication) starts during Occurrence A of \$EncounterInpatient
 - # Alcohol Use Screening Completed Through an Alcohol Test
 - OR: "Laboratory Test, Performed: Drug and Alcohol Test" satisfies any:
 - (result: Alcohol Intoxication) <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - (result: Alcohol Intoxication) starts during Occurrence A of \$EncounterInpatient
- **Denominator Exclusions =**
 - OR: \$InterventionComfortMeasures <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - OR: \$InterventionComfortMeasures starts during Occurrence A of \$EncounterInpatient
 - OR:
 - AND:
 - OR: "Physical Exam, Performed: Cognitive Status" satisfies all:
 - (result: Impaired Cognition)
 - <= 1 day(s) starts after or concurrent with start of Occurrence A of \$EncounterInpatient
 - OR: "Diagnosis: Cognitive and Psychiatric Disorders Indicative of Impaired Cognition" overlaps Occurrence A of \$EncounterInpatient
 - OR: Intersection of:
 - Occurrence A of \$EncounterInpatient
 - "Encounter, Performed: Encounter Inpatient (diagnosis: Cognitive and Psychiatric Disorders Indicative of Impaired Cognition)"
- **Numerator =**
 - AND: "Intervention, Performed: Alcohol Brief Intervention" satisfies any:
 - <= 3 day(s) starts before start of Occurrence A of \$EncounterInpatient
 - starts during Occurrence A of \$EncounterInpatient
- **Numerator Exclusions =**
 - None

- **Denominator Exceptions =**
 - None
- **Stratification =**
 - None

Data Criteria (QDM Variables)

- **\$EncounterInpatient =**
 - "Encounter, Performed: Encounter Inpatient" satisfies all:
 - (length of stay <= 120 day(s))
 - ends during "Measurement Period"
- **\$InterventionComfortMeasures =**
 - Union of:
 - "Intervention, Order: Comfort Measures"
 - "Intervention, Performed: Comfort Measures"

Data Criteria (QDM Data Elements)

- "Assessment, Performed: AUDIT C Tool LOINC Value Set" using "AUDIT C Tool LOINC Value Set LOINC Value Set (2.16.840.1.113762.1.4.1145.12)"
- "Assessment, Performed: AUDIT Tool LOINC Value Set" using "AUDIT Tool LOINC Value Set LOINC Value Set (2.16.840.1.113762.1.4.1145.10)"
- "Assessment, Performed: TWEAK Tool LOINC Value Set" using "TWEAK Tool LOINC Value Set LOINC Value Set (2.16.840.1.113762.1.4.1145.13)"
- "Diagnosis: Cognitive and Psychiatric Disorders Indicative of Impaired Cognition" using "Cognitive and Psychiatric Disorders Indicative of Impaired Cognition Grouping Value Set (2.16.840.1.113762.1.4.1111.120)"
- "Encounter, Performed: Encounter Inpatient" using "Encounter Inpatient SNOMEDCT Value Set (2.16.840.1.113883.3.666.5.307)"
- "Intervention, Order: Comfort Measures" using "Comfort Measures SNOMEDCT Value Set (1.3.6.1.4.1.33895.1.3.0.45)"
- "Intervention, Performed: Alcohol Brief Intervention" using "Alcohol Brief Intervention SNOMEDCT Value Set (2.16.840.1.113762.1.4.1145.14)"
- "Intervention, Performed: Comfort Measures" using "Comfort Measures SNOMEDCT Value Set (1.3.6.1.4.1.33895.1.3.0.45)"
- "Intervention, Performed not done: Patient Refusal" using "Patient Refusal SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.93)"
- "Laboratory Test, Performed: BH Blood alcohol test" using "BH Blood alcohol test Grouping Value Set (2.16.840.1.113883.3.1257.1.1602)"
- "Laboratory Test, Performed: Drug and Alcohol Test" using "Drug and Alcohol Test LOINC Value Set (2.16.840.1.113762.1.4.1145.3)"
- "Patient Characteristic Sex: Female" using "Female AdministrativeGender Value Set (2.16.840.1.113883.3.560.100.2)"
- "Patient Characteristic Sex: Male" using "Male AdministrativeGender Value Set (2.16.840.1.113883.3.560.100.1)"
- "Physical Exam, Performed: Cognitive Status" using "Cognitive Status LOINC Value Set (2.16.840.1.113762.1.4.1046.91)"
- Attribute: "Result: Alcohol Intoxication" using "Alcohol Intoxication SNOMEDCT Value Set (2.16.840.1.113762.1.4.1145.4)"
- Attribute: "Result: Impaired Cognition" using "Impaired Cognition Grouping Value Set (2.16.840.1.113762.1.4.1046.89)"

- Attribute: "Diagnosis: Cognitive and Psychiatric Disorders Indicative of Impaired Cognition" using "Cognitive and Psychiatric Disorders Indicative of Impaired Cognition Grouping Value Set (2.16.840.1.113762.1.4.1111.120)"

Supplemental Data Elements

- "Patient Characteristic Ethnicity: Ethnicity" using "Ethnicity CDCREC Value Set (2.16.840.1.114222.4.11.837)"
- "Patient Characteristic Payer: Payer" using "Payer SOP Value Set (2.16.840.1.114222.4.11.3591)"
- "Patient Characteristic Race: Race" using "Race CDCREC Value Set (2.16.840.1.114222.4.11.836)"
- "Patient Characteristic Sex: ONC Administrative Sex" using "ONC Administrative Sex AdministrativeGender Value Set (2.16.840.1.113762.1.4.1)"

Risk Adjustment Variables

- None

Measure Set	Substance Use Measure Set
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