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

Measure Set: Tobacco Treatment (TOB)

Set Measure ID #: TOB-3

Performance Measure Name:
TOB-3 Tobacco Use Treatment Provided or Offered at Discharge
TOB-3a Tobacco Use Treatment at Discharge

Description:
TOB-3 Patients identified as tobacco product users within the past 30 days who were referred to or refused evidence-based outpatient counseling AND received or refused a prescription for FDA-approved cessation medication upon discharge.

TOB-3a Patients who were referred to evidence-based outpatient counseling AND received a prescription for FDA-approved cessation medication upon discharge as well as those who were referred to outpatient counseling and had reason for not receiving a prescription for medication.

The measure is reported as an overall rate which includes all patients to whom tobacco use 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 tobacco use treatment at discharge. The Provided or Offered rate (TOB-3) describes patients identified as tobacco product users within the past 30 days who were referred to or refused evidence-based outpatient counseling AND received or refused a prescription for FDA-approved cessation medication upon discharge. The Tobacco Use Treatment at Discharge (TOB-3a) rate describes only those who were referred to evidence-based outpatient counseling AND received a prescription for FDA-approved cessation medication upon discharge as well as those who were referred to outpatient counseling and had reason for not receiving a prescription for medication. Those who refused are not included.

Rationale: Tobacco use is the single greatest cause of disease in the United States today and accounts for more than 435,000 deaths each year (CDC MMWR 2008; McGinnis 1993). Smoking is a known cause of multiple cancers, heart disease, and stroke, complications of pregnancy, chronic obstructive pulmonary disease, other respiratory problems, poorer wound healing, and many other diseases (DHHS 2004). Tobacco use creates a heavy cost to society as well as to individuals. Smoking-attributable health care expenditures are estimated at 96 billion dollars per year in direct medical expenses and 97 billion dollars in lost productivity (CDC 2007).
There is strong and consistent evidence that tobacco dependence interventions, if delivered in a timely and effective manner, significantly reduce the smoker’s risk of suffering from tobacco-related disease and improved outcomes for those already suffering from a tobacco-related disease (DHHS 2000; Baumeister 2007; Lightwood 2003 and 1997; Rasmussen 2005; Hurley 2005; Critchley 2004; Ford 2007; Rigotti 2008). Effective, evidence-based tobacco dependence interventions have been clearly identified and include clinician advice, individual, group, or telephone counseling, and use of FDA-approved medications. These treatments are clinically effective and extremely cost-effective relative to other commonly used disease prevention interventions and medical treatments. Hospitalization (both because hospitals are a tobacco-free environment and because patients may be more motivated to quit as a result of their illness) offers an ideal opportunity to provide cessation assistance that may promote the patient’s medical recovery. Patients who receive even brief advice and intervention from their care providers are more likely to quit than those who receive no intervention. Studies indicate that the combination of counseling and medications is more effective for tobacco cessation than either medication or counseling alone, except in specific populations for which there is insufficient evidence of the effectiveness of the FDA-approved cessation medications. These populations include pregnant women, smokeless tobacco users, light smokers, and adolescents. Tobacco dependence should be viewed as a chronic disease. The treatment of this chronic disease is most effective when the initial interventions provided in the hospital setting are continued upon discharge to other care settings.

**Type of Measure:** Process

**Improvement Noted As:** Increase in the rate

**Numerator Statement:**

**TOB-3:** The number of patients who were referred to or refused evidence-based outpatient counseling **AND** received or refused a prescription for FDA-approved cessation medication at discharge.

**TOB-3a:** The number of patients who were referred to evidence-based outpatient counseling **AND** received a prescription for FDA-approved cessation medication at discharge.

<table>
<thead>
<tr>
<th>Included Populations:</th>
<th>TOB-3</th>
<th>TOB-3a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients who refused a prescription for FDA-Approved tobacco cessation medication at discharge.</td>
<td>Patients who refused a referral to evidence-based outpatient counseling.</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Excluded Populations: (for FDA approved medications only)</th>
<th>TOB-3</th>
<th>TOB-3a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smokeless tobacco users</td>
<td></td>
<td>Smokeless tobacco users</td>
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<tr>
<td>Pregnant smokers</td>
<td></td>
<td>Pregnant smokers</td>
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<tr>
<td>Light smokers</td>
<td></td>
<td>Light smokers</td>
</tr>
<tr>
<td>Patients with reasons for not administering FDA-approved cessation medication.</td>
<td></td>
<td>Patients with reasons for not administering FDA-approved cessation medication.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Data Elements</th>
<th>ICD-9-CM Other Diagnosis Codes</th>
<th>ICD-9-CM Principal Diagnosis Code</th>
<th>Prescription for Tobacco Cessation Medication</th>
<th>Reason for No Tobacco Cessation Medication at Discharge</th>
<th>Referral for Outpatient Tobacco Cessation Counseling</th>
<th>Tobacco Use Status</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>Referral for Outpatient Tobacco Cessation Counseling</td>
<td>Tobacco Use Status</td>
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<tr>
<td></td>
<td>Admissions Date</td>
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<tr>
<td></td>
<td>Birthdate</td>
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</tr>
<tr>
<td></td>
<td>Cognitive Impairment</td>
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</tbody>
</table>

**Denominator Statement:** The number of hospitalized inpatients 18 years of age and older identified as current tobacco users.

**Included Populations:** Not applicable

**Excluded Populations:**
- Patients less than 18 years of age
- Patient who are cognitively impaired
- Patients who are not current tobacco users
- Patients who refused or were not screened for tobacco use status during the hospital stay
- Patients who have a duration of stay less than or equal to one day and greater than 120 days
- Patients who expired
- Patients who left against medical advice
- Patients discharged to another hospital
- Patients discharged to another health care facility
- Patients discharged to home for hospice care
- Patients who do not reside in the United States

**Data Elements:**
- Admission Date
- Birthdate
- Cognitive Impairment
• **Discharge Date**
• **Discharge Disposition**
• **Tobacco Use Status**

**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 identify those patients that refused either counseling or medications or both at discharge so as to have a better understand of which treatment type of treatment was accepted or refused so that efforts can be directed toward improving care.

**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:**
- Centers for Disease Control and Prevention. Best Practices for Comprehensive Tobacco Control Programs—2007. Atlanta, GA, Department of Health and Human Services, Centers for Disease Control and Prevention, National Center
for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2007.


Specifications Manual for National Hospital Inpatient Quality Measures
Discharges 01-01-12 (1Q12) through 06-30-12 (2Q12)
TOB-3: Tobacco Use Treatment Provided or Offered at Discharge

Numerator: The number of patients who were referred to or refused evidence-based outpatient counseling AND received or refused a prescription for FDA-approved cessation medication at discharge.

Denominator: The number of hospitalized inpatients 18 years of age and older identified as current tobacco users.

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**TOB-3a: Tobacco Use Treatment Provided or Offered at Discharge**

**Numerator:** The number of patients who were referred to evidence-based outpatient counseling AND received a prescription for FDA-approved cessation medication at discharge.

**Denominator:** The number of hospitalized inpatients 18 years of age and older identified as current tobacco users.

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**Specifications Manual for National Hospital Inpatient Quality Measures**

**Discharges 01-01-12 (1Q12) through 06-30-12 (2Q12)**

TOB-3-8
TOB-3: Tobacco Use Treatment Provided or Offered at Discharge

Numerator: The number of patients who were referred to or refused evidence-based outpatient counseling AND received or refused a prescription for FDA-approved cessation medication at discharge.

Denominator: The number of hospitalized inpatients 18 years of age and older identified as current tobacco users.

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 for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.
   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 for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-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 and will be rejected for the overall measure rate.
TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.

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 for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-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 and will be rejected for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.
   
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 for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.
   
c. If Discharge Disposition equals 1 or 8, continue processing and proceed to check Tobacco Use Status.

8. Check Tobacco Use Status
   a. If Tobacco Use Status is missing, the case will proceed to a Measure Category Assignment of X and will be rejected for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.
   
b. If Tobacco Use Status equals 6, 7 or 8, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.
   
c. If Tobacco Use Status equals 1, 2, 3, 4, 5, 9, 10, 11, 12, 13 or 14, continue processing and proceed to check Referral for Outpatient Tobacco Cessation Counseling.

9. Check Referral for Outpatient Tobacco Cessation Counseling
   a. If Referral for Outpatient Tobacco Cessation Counseling is missing, the case will proceed to a Measure Category Assignment of X and will be rejected for the overall measure rate TOB-3. Continue processing and
proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.

b. If Referral for Outpatient Tobacco Cessation Counseling equals 4, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.

c. If Referral for Outpatient Tobacco Cessation Counseling equals 1, 2, 3 or 5, continue processing and proceed to recheck Referral for Outpatient Tobacco Cessation Counseling.

10. Recheck Referral for Outpatient Tobacco Cessation Counseling

a. If Referral for Outpatient Tobacco Cessation Counseling equals 2 or 5, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.

b. If Referral for Outpatient Tobacco Cessation Counseling equals 1 or 3, continue processing and proceed to ICD-9-CM Principal Diagnosis Code.

11. Check ICD-9-CM Principal Diagnosis Code

a. If ICD-9-CM Principal Diagnosis Code is on Table 12.3, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.

b. If ICD-9-CM Principal Diagnosis Code is not on Table 12.3, continue processing and proceed to ICD-9-CM Other Diagnosis Code.

12. Check ICD-9-CM Other Diagnosis Code

a. If at least one of the ICD-9-CM Other Diagnosis Code is on Table 12.3, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.

b. If all ICD-9-CM Other Diagnosis Code are missing or none is on Table 12.3, continue processing and proceed to recheck Tobacco Use Status.

13. Recheck Tobacco Use Status

a. If Tobacco Use Status equals 2, 3, 4 or 11, the case will proceed to a Measure Category Assignment of E and will be in the Numerator
Population for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.

b. If Tobacco Use Status equals 1, 5, 9, 10, 12, 13 or 14, continue processing and proceed to check Prescription for Tobacco Cessation Medication.

14. Check Prescription for Tobacco Cessation Medication
   a. If Prescription for Tobacco Cessation Medication is missing, the case will proceed to a Measure Category Assignment of X and will be rejected for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.
   b. If Prescription for Tobacco Cessation Medication equals 3, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.
   c. If Prescription for Tobacco Cessation Medication equals 1, 2 or 4, continue processing and proceed to recheck Prescription for Tobacco Cessation Medication.

15. Recheck Prescription for Tobacco Cessation Medication
   a. If Prescription for Tobacco Cessation 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 TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.
   b. If Prescription for Tobacco Cessation Medication equals 4, continue processing and proceed to check Reason for No Tobacco Cessation Medication at Discharge.

16. Check Reason for No Tobacco Cessation Medication at Discharge
   a. If Reason for No Tobacco Cessation Medication at Discharge is missing, the case will proceed to a Measure Category Assignment of X and will be rejected for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.
   b. If Reason for No Tobacco Cessation Medication at Discharge equals N, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.
processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.

c. If Reason for No Tobacco Cessation Medication at Discharge equals Y, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population for the overall measure rate TOB-3. Continue processing and proceed to Step 17 to Initialize Measure Category Assignment for sub-measure TOB-3a.
TOB-3a: Tobacco Use Treatment at Discharge

**Numerator:** The number of patients who were referred to evidence-based outpatient counseling AND received a prescription for FDA-approved cessation medication at discharge.

**Denominator:** The number of hospitalized inpatients 18 years of age and older identified as current tobacco users.

17. Initialize Measure Category Assignment for sub-measure TOB-3a to Measure Category Assignment of B. Do not change the Measure Category Assignment that was already calculated for the overall measure TOB-3. The rest of the algorithm will reset the appropriate Measure Category Assignment to TOB-3a.

18. Check Overall Rate Category Assignment
   a. If the Overall Rate Category Assignment equals B or X, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population for the sub-measure TOB-3a. Stop processing.
   b. If Overall Rate Category Assignment equals D or E, continue processing and proceed to recheck Referral for Outpatient Tobacco Cessation Counseling.

19. Recheck Referral for Outpatient Tobacco Cessation Counseling
   a. If Referral for Outpatient Tobacco Cessation Counseling equals 3 or 5 the case will proceed to Measure Category Assignment of D and will be in the Measure Population for sub-measure TOB-3a. Stop processing.
   b. If Referral for Outpatient Tobacco Cessation Counseling equals 1 or 2, continue processing and proceed to recheck ICD-9-CM Principal Diagnosis Code.

20. Recheck ICD-9-CM Principal Diagnosis Code
   a. If ICD-9-CM Principal Diagnosis Code is on Table 12.3, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population for sub-measure TOB-3a. Stop processing.
   b. If ICD-9-CM Principal Diagnosis Code is not on Table 12.3, continue processing and proceed to recheck ICD-9-CM Other Diagnosis Code.

   a. If at least one of the ICD-9-CM Other Diagnosis Code is on Table 12.3, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population for sub-measure TOB-3a. Stop processing.
   b. If all ICD-9-CM Other Diagnosis Code are missing or none is on Table 12.3, continue processing and proceed to recheck Tobacco Use Status.
22. Recheck Tobacco Use Status  
   a. If Tobacco Use Status equals 2, 3, 4 or 11, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population for sub-measure TOB-3a. Stop processing.  
   b. If Tobacco Use Status equals 1, 5, 9, 10, 12, 13 or 14, continue processing and proceed to recheck Prescription for Tobacco Cessation Medication.

23. Recheck Prescription for Tobacco Cessation Medication  
   a. If Prescription for Tobacco Cessation Medication equals 2, the case will proceed to Measure Category Assignment of D and will be in the Measure Population for sub-measure TOB-3a. Stop processing.  
   b. If Prescription for Tobacco Cessation Medication equals 1, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population for sub-measure TOB-3a. Stop processing.  
   c. If Prescription for Tobacco Cessation Medication equals 4, continue processing and proceed to recheck Reason for No Tobacco Cessation Medication at Discharge.

24. Recheck Reason for No Tobacco Cessation Medication at Discharge  
   a. If Reason for No Tobacco Cessation Medication at Discharge equals N, the case will proceed to Measure Category Assignment of D and will be in the Measure Population for sub-measure TOB-3a. Stop processing.  
   b. If Reason for No Tobacco Cessation Medication at Discharge equals Y, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population for sub-measure TOB-3a. Stop processing.