The Joint Commission Tobacco Treatment Measures Overview and Current Status – July 2011

Background

In late 2008, The Joint Commission received funding from the Partnership for Prevention and the Substance Abuse and Mental Health Services Administration (SAMHSA) of the Department of Health and Human Services, to develop, specify, and test standardized performance measures addressing tobacco screening and cessation counseling. Working with a technical advisory panel (TAP)[1], 4 performance measures were recommended that would address all hospitalized inpatients, irrespective of their diagnosis/clinical condition known as global (population) performance measures. These proposed measures were evidence-based, consistent with the 2008 United States Public Health Service Guideline, *Treating Tobacco use and Dependence*[2], and required that all tobacco users be identified, that tobacco users be provided or offered both evidence-based counseling and medications during the hospitalization and upon discharge, and that tobacco use status be assessed post-discharge. This is a substantial advance from the prior measures that were limited to certain patient populations and primarily involved the identification of tobacco users. The measures were posted for a 30 day public comment period in September 2009. Measure specifications were then modified based on the public comment and prepared for pilot testing.

Pilot Test

Twenty four hospitals from 19 states volunteered to participate in a six month pilot test of the draft tobacco performance measures with data collected for discharges beginning March 1, 2010 through July 31, 2010. Pilot test hospitals ranged in size from 15 to 900 beds. Eight of the 24 hospitals were Veterans Administration (VA) Hospitals, and six hospitals were participating in the SBIRT (Screening, Brief Intervention, and Referral to Treatment) project*. Seven hospitals used electronic health records and seven used paper medical records; the remainder used a combination of electronic and paper records.

The objectives of the pilot test were:

- Assessment of data element and measure reliability
- Assessment of data collection and implementation effort
- Identification of potential measure specification enhancements

Findings from the pilot test were shared with the TAP and modifications made to the measure set specifications based on test findings and TAP and staff recommendations.

Recommendations for implementation were taken to a subcommittee of the Joint Commission Board of Commissioners in early 2011. The committee approved the recommendation to add the Tobacco Treatment Measures to the complement of existing measure sets to meet accreditation requirements beginning in January 2012.

Current Status

The tobacco treatment measures have been added to the Specifications Manual for National Hospital Inpatient Quality Measures Version 4.0 and are designated as collected for Joint Commission only, CMS Information Only. The measures can be accessed at the following link:

http://www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures/

Note: It takes a couple clicks to get to the tobacco measures. For convenience, attached to this document are the four tobacco measures:

Tobacco Measure #1: **Tobacco Use Screening**
Tobacco Measure #2: **Tobacco Use Treatment (Counseling + Medication) Provided or Offered (During Hospitalization)**
Tobacco Measure #3: **Tobacco Use Treatment Provided or Offered at Discharge**
Tobacco Measure #4: **Assessing Tobacco use Status after Discharge**

The measures were submitted to the National Quality Forum (NQF) for endorsement consideration on July 12, 2012. The measures will be reviewed by the NQF Population Health: Prevention Endorsement Maintenance Steering Committee and it is anticipated that further information on their endorsement status will be available in early 2012.

The tobacco treatment measures are available for hospitals to begin data collection beginning with discharges January 1, 2012. The measures will be publicly reported on the Joint Commission's website "Quality Check" subsequent to endorsement by the National Quality Forum.

The Tobacco Treatment measures were mentioned in the Centers for Medicare & Medicaid (CMS) 2012 Proposed Inpatient Prospective Payment Rule published this spring. CMS invited public comment on the tobacco treatment and other quality measures and topics that they are considering for future use. The final rule is due to be released in early August. The final rule may include information on comments CMS received, but any future use by CMS of the tobacco treatment measures would have to be proposed in a future rule-making cycle.

Key Take-Aways

1) The new measures are comprehensive, evidence-based and require that tobacco users receive treatment for tobacco dependence during a hospitalization.

2) They are one of a complement of Joint Commission performance measure sets. Currently Joint Commission accredited hospitals must select four performance measure sets from a list of 14 available measure sets. The tobacco treatment measures will be one of the 14 sets that hospitals choose from. As such, hospitals are not required to specifically choose the tobacco treatment measure set for reporting.

3) If NQF endorses and CMS includes in a future program, the tobacco measures set, this could substantially increase their use by hospitals.

Notes:

1. Members of the Technical Advisory Panel: Robert Adsit
   Steven Bernstein
   Katharine Bradley
   Larry Gentilello
   Nancy Rigotti
   Linda Sarna
   Steven Schroeder
   Constance Weisner
   Frank Vitale
   Eric Goplerud – Co-Chair
   Michael Fiore – Chair

2. Fiore MC, Jaen CR, Baker TB, et al. *Treating Tobacco use and Dependence: 2008 Update*. Clinical Practice Guideline. Rockville, MD: U.S. Department of Health and Human Services. Public Health Service. May 2008.

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

Measure Set: Tobacco Treatment (TOB)

Set Measure ID #: TOB-1

Performance Measure Name: Tobacco Use Screening

Description: Hospitalized patients who are screened during the hospital stay for tobacco use (cigarettes, smokeless tobacco, pipe and cigars) within the past 30 days.

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, 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 per year in direct medical expenses and $97 billion 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 user'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; Rigotti 2008). Effective, evidence-based tobacco dependence interventions have been clearly identified and include brief 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.

Type of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement: The number of patients who were screened for tobacco use status.

Included Populations:

- Patients who refused screening

Excluded Populations: None

Data Elements:

- *Tobacco 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
- Patient 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 tobacco 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 proportion.

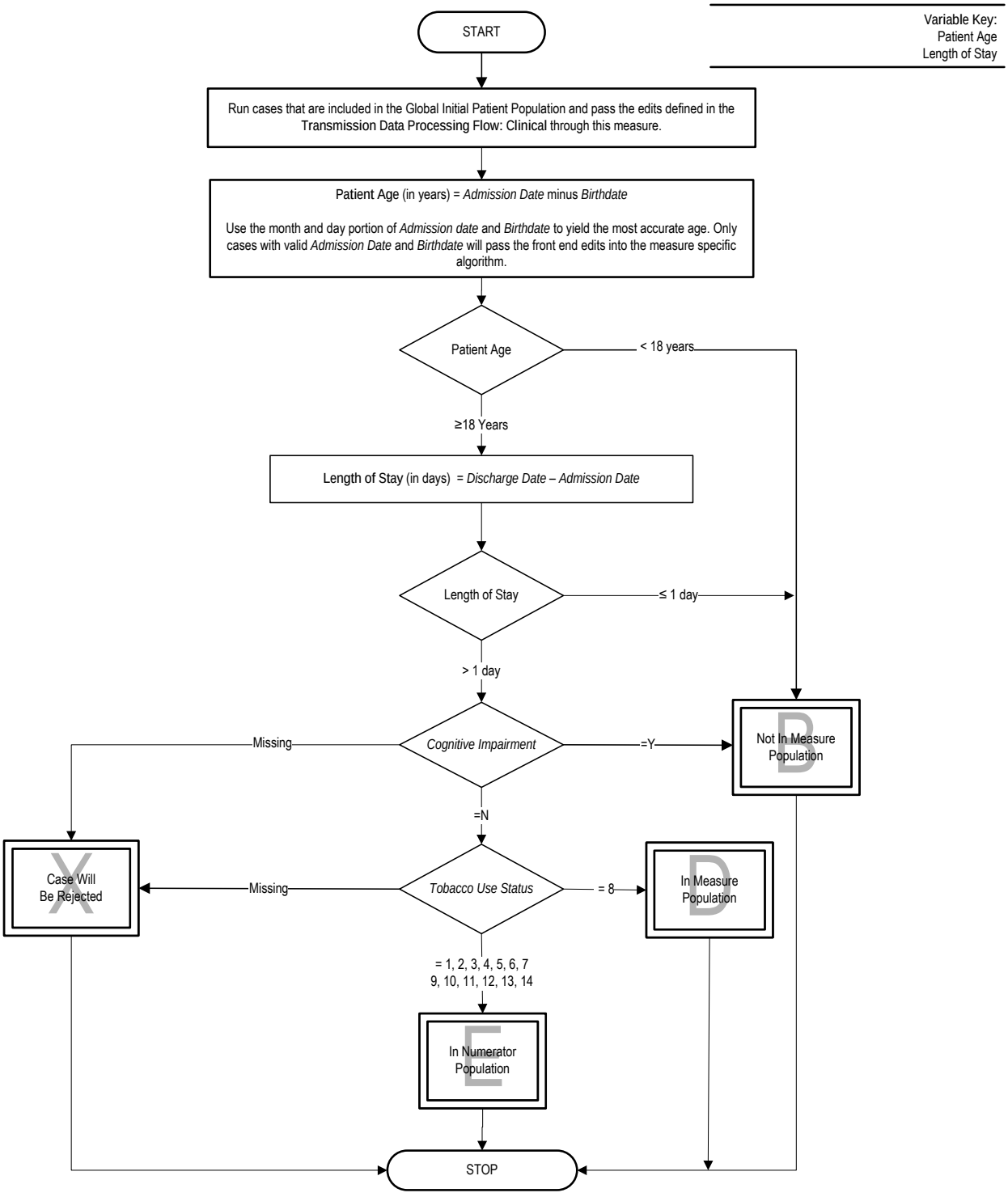
Selected References:

- Centers for Disease Control and Prevention. Annual Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses—United States, 2000-2004. Morbidity and Mortality Weekly Report (MMWR) 2008. 57(45): 1226-1228. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5745a3.htm.
- McGinnis JM, Foege WH. Actual causes of death in the United States. *JAMA* 1993 Nov 10;270(18):2207-12.
- U.S. Department of Health and Human Services. The health consequences of smoking: a report of the Surgeon General. Atlanta, GA, U.S. 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, 2004.
- 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.
- U.S. Department of Health and Human Services. Reducing tobacco use: a report of the Surgeon General. Atlanta, GA, U.S. 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, 2000.
- Baumeister SE, Schumann A, Meyer C, et al. Effects of smoking cessation on health care use: is elevated risk of hospitalization among former smokers attributable to smoking-related morbidity? *Drug Alcohol Depend*. 2007 May 11;88(2-3):197-203. Epub 2006 Nov 21.
- Lightwood JM. The economics of smoking and cardiovascular disease. *Prog Cardiovasc Dis*. 2003 Jul-Aug;46(1):39-78.
- Lightwood JM, Glantz SA. Short-term economic and health benefits of smoking cessation: myocardial infarction and stroke. *Circulation*. 1997 Aug 19;96 (4):1089-96.
- Rigotti NA, Munafo MR, Stead LF. Smoking cessation interventions for hospitalized smokers: a systematic review. *Arch Intern Med*. 2008 Oct 13;168 (18):1950-60.

TOB-1: Tobacco Use Screening

Numerator: The number of patients who were screened for tobacco use status

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



TOB-1: Tobacco Use Screening

Numerator: The number of patients who were screened for tobacco use status**.**

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 Tobacco Use Status.

7. 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. Stop processing.
   b. If Tobacco Use Status equals 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14 the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
   c. If Tobacco Use Status equals 8, the case will proceed to Measure Category Assignment of D and will be in the Measure Population. Stop processing.

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

Measure Set: Tobacco Treatment (TOB)

Set Measure ID #: TOB-2

Performance Measure Name:
TOB-2 Tobacco Use Treatment Provided or Offered
TOB-2a Tobacco Use Treatment

Description:
TOB-2 Patients identified as tobacco product users within the past 30 days who receive or refuse practical counseling to quit AND receive or refuse FDA-approved cessation medications during the hospital stay
TOB-2a Patients who received counseling AND medication as well as those who received counseling and had reason for not receiving the medication.

The measure is reported as an overall rate which includes all patients to whom tobacco use treatment was provided, or offered and refused, and a second rate, a subset of the first, which includes only those patients who received tobacco use treatment. The Provided or Offered rate (TOB-2), describes patients identified as tobacco product users within the past 30 days who receive or refuse practical counseling to quit AND receive or refuse FDA-approved cessation medications during the hospital stay. The Tobacco Use Treatment (TOB-2a) rate describes only those who received counseling AND medication as well as those who received counseling and had reason for not receiving the 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, 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 user's risk of suffering from tobacco-related disease and improve 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 brief clinician advice, individual, group, or telephone counseling, and use of FDA-approved cessation medications. These treatments are clinically effective and extremely cost-effective relative to other commonly used disease prevention interventions and medical treatments. Studies indicate that the combination of counseling and medications is more effective for tobacco cessation than either medication or counseling alone (Fiore 2008), except in specific populations for which there is insufficient evidence of the effectiveness and/or safety of the FDA-approved cessation medications. These populations include pregnant women, smokeless tobacco users, light smokers, and adolescents. 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.

Type of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement:

TOB-2: The number of patients who received or refused practical counseling to quit AND received or refused FDA-approved cessation medications.

TOB-2a: The number of patients who received practical counseling to quit AND received FDA-approved cessation medications.

	TOB-2	**TOB-2a**
Included Populations:	Patients who refuse counseling Patients who refuse FDA-Approved cessation medication	Not Applicable
Excluded Populations: (for FDA approved medications only)	For Medications Only Smokeless tobacco users Pregnant smokers Light smokers Patients with reasons for not administering FDA-approved cessation medication.	For Medications Only Smokeless tobacco users Pregnant smokers Light smokers Patients with reasons for not administering FDA- approved cessation medications.
Data Elements	*ICD-9-CM Other Diagnosis Codes* *ICD-9-CM Principal Diagnosis Code* *Reason for No Tobacco Cessation Medication During the Hospital Stay* *Tobacco Use Status* *Tobacco Use Treatment FDA-*	*ICD-9-CM Other Diagnosis Codes* *ICD-9-CM Principal Diagnosis Code* *Reason for No Tobacco Cessation Medication During the Hospital Stay* *Tobacco Use Status* *Tobacco Use Treatment FDA-*

	Approved Cessation Medication *Tobacco Use Treatment Practical Counseling*	*Approved Cessation Medication* *Tobacco Use Treatment Practical Counseling*

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 during the hospital stay
- 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*
- *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 so as to have a better understand of which treatment type is 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:

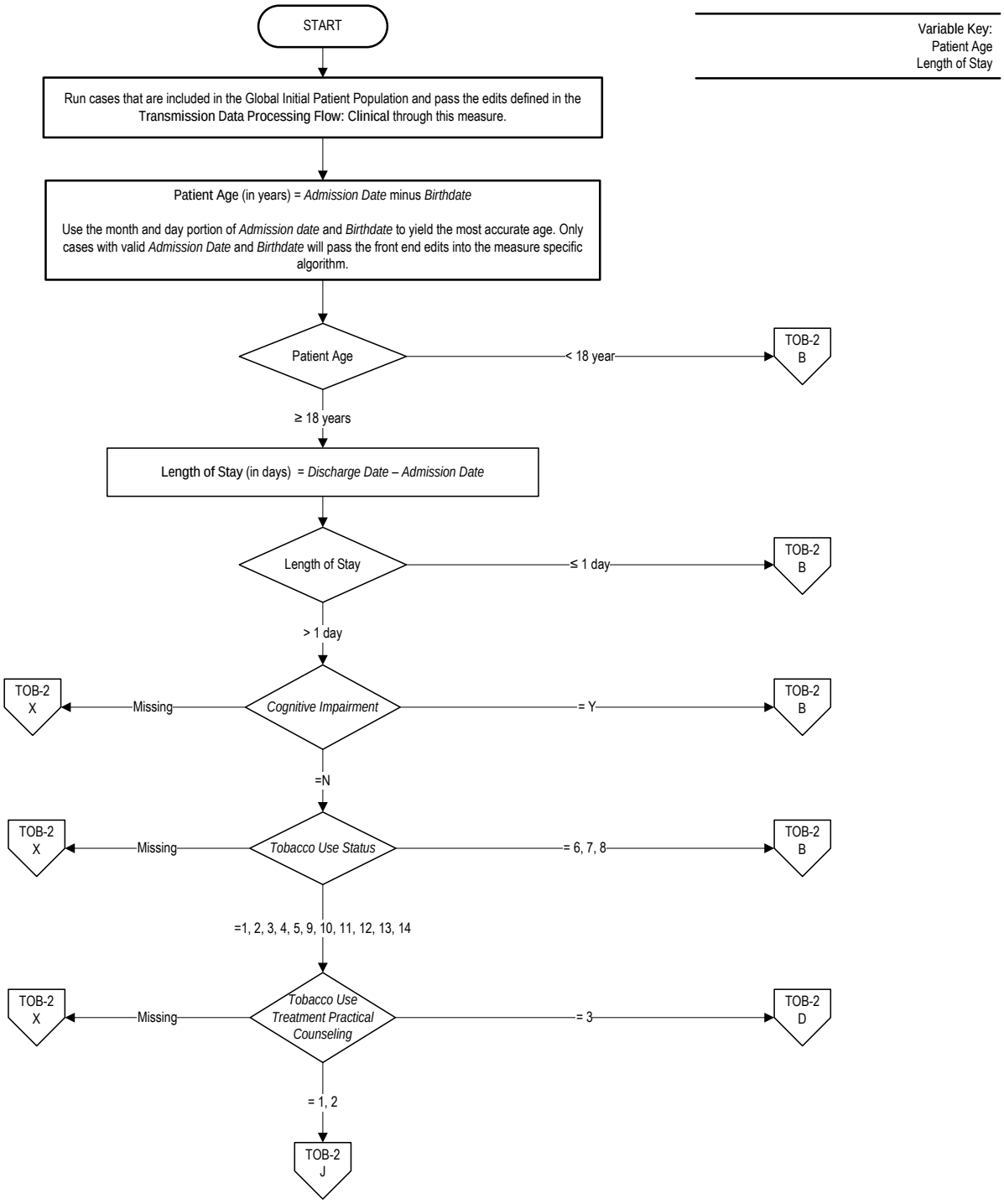
- Centers for Disease Control and Prevention. Annual Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses—United States, 2000-2004. Morbidity and Mortality Weekly Report (MMWR) 2008. 57(45): 1226-1228. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5745a3.htm.
- McGinnis JM, Foege WH. Actual causes of death in the United States. *JAMA* 1993 Nov 10;270(18):2207-12.
- U.S. Department of Health and Human Services. The health consequences of smoking: a report of the Surgeon General. Atlanta, GA, U.S. 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, 2004.
- 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.
- U.S. Department of Health and Human Services. Reducing tobacco use: a report of the Surgeon General. Atlanta, GA, U.S. 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, 2000.
- Baumeister SE, Schumann A, Meyer C, et al. Effects of smoking cessation on health care use: is elevated risk of hospitalization among former smokers attributable to smoking-related morbidity? *Drug Alcohol Depend*. 2007 May 11;88(2-3):197-203. Epub 2006 Nov 21.
- Lightwood JM. The economics of smoking and cardiovascular disease. Prog Cardiovasc Dis. 2003 Jul-Aug;46(1):39-78.
- Lightwood JM, Glantz SA. Short-term economic and health benefits of smoking cessation: myocardial infarction and stroke. *Circulation*. 1997 Aug 19;96(4):1089-96.
- Rasmussen SR, Prescott E, Sorensen TI, et al. The total lifetime health cost savings of smoking cessation to society. *Eur J Public Health*. 2005 Dec;15(6):601-6. Epub 2005 Jul 13.
- Hurley SF. Short-term impact of smoking cessation on myocardial infarction and stroke hospitalizations and costs in Australia. *Med J Aust*. 2005 Jul 4;183(1):13-7.

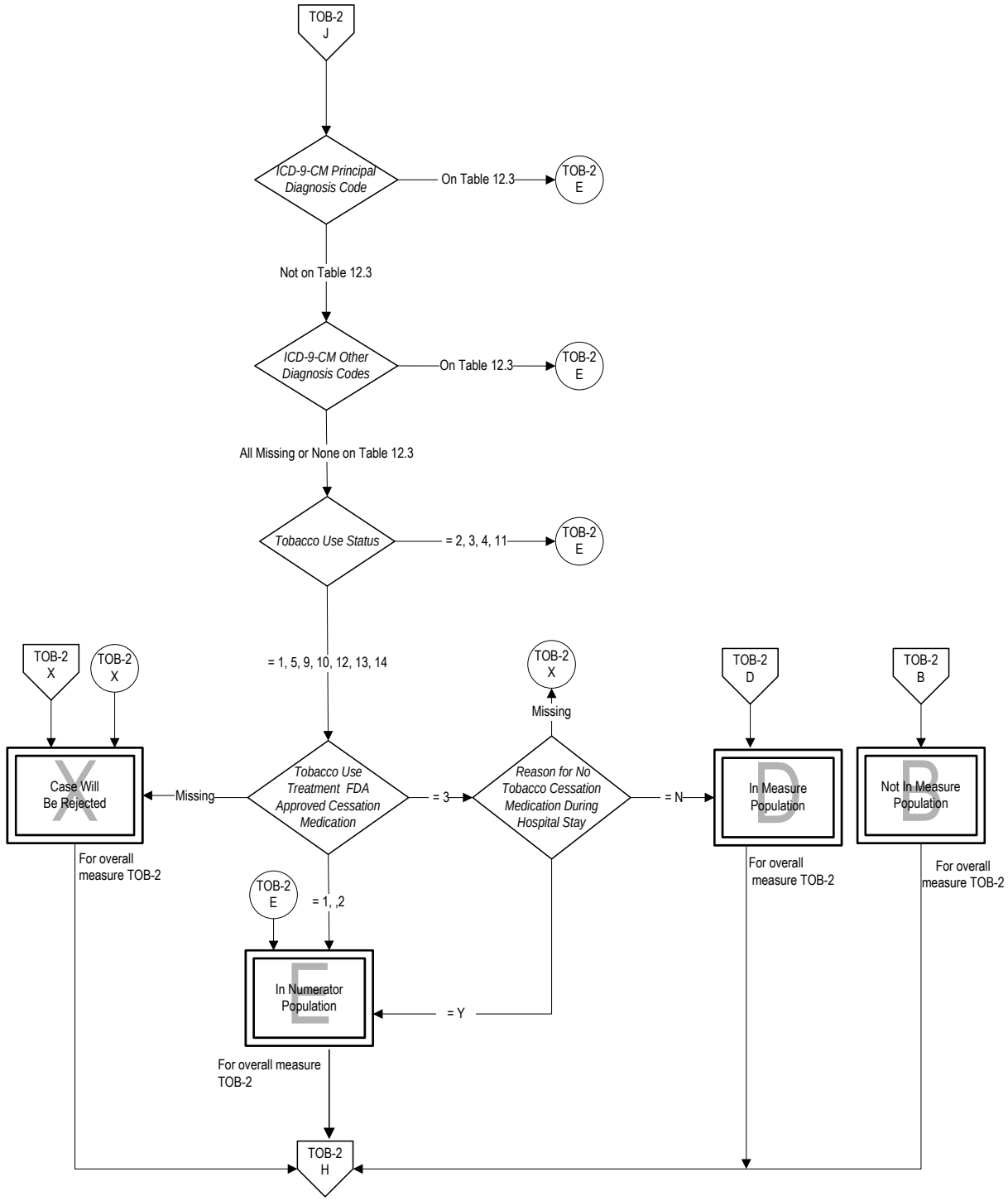
- Critchley J, Capewell S. Smoking cessation for the secondary prevention of coronary heart disease. Cochrane Database Syst Rev. 2004;(1):CD003041.
- Ford ES, Ajani UA, Croft JB, et al. Explaining the decrease in U.S. deaths from coronary disease, 1980-2000. *N Engl J Med*. 2007 Jun 7;356(23):2388-98.
- Fiore MC et al. Treating Tobacco Use and Dependence: 2008 Update. Clinical Practice Guideline. Rockville, MD: U.S. Department of Health and Human Services. Public Health Service. May 2008.
- U.S. Department of Health and Human Services: The health benefits of smoking cessation: a report of the Surgeon General. Publication No. (CDC) 90-8416. Rockville, MD: U.S. Department of Health and Human Services, 1990.
- Rigotti NA, Munafo MR, Stead LF. Smoking cessation interventions for hospitalized smokers: a systematic review. *Arch Intern Med*. 2008 Oct 13;168(18):1950-60.

TOB-2: Tobacco Use Treatment Provided or Offered

Numerator: The number of patients who received or refused practical counseling to quit AND received or refused FDA-approved cessation medications.

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

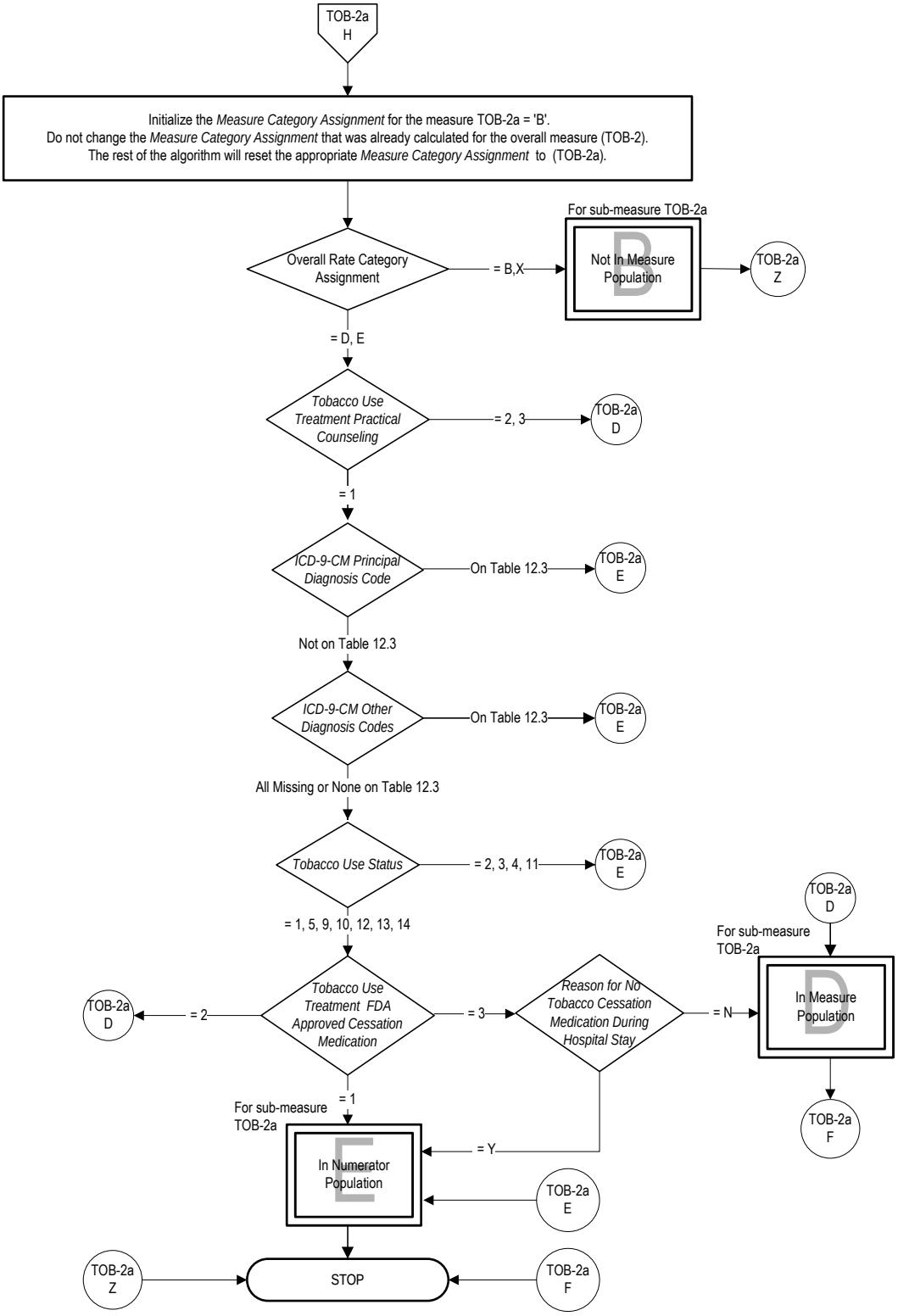



TOB-2 J
ICD-9-CM Principal Diagnosis Code
On Table 12.3
TOB-2 E
Not on Table 12.3
ICD-9-CM Other Diagnosis Codes
On Table 12.3
TOB-2 E
All Missing or None on Table 12.3
Tobacco Use Status
= 2, 3, 4, 11
TOB-2 E
= 1, 5, 9, 10, 12, 13, 14
TOB-2 X
TOB-2 X
TOB-2 X
Missing
TOB-2 D
TOB-2 B
X
Case Will Be Rejected
Missing
Tobacco Use Treatment FDA Approved Cessation Medication
= 3
Reason for No Tobacco Cessation Medication During Hospital Stay
= N
D
In Measure Population
B
Not In Measure Population
For overall measure TOB-2
For overall measure TOB-2
For overall measure TOB-2
TOB-2 E
= 1, ,2
E
In Numerator Population
= Y
For overall measure TOB-2
TOB-2 H

TOB-2a: Tobacco Use Treatment Provided or Offered

Numerator: The number of patients who received practical counseling to quit AND received FDA-approved cessation medications.

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



TOB-2: Tobacco Use Treatment Provided or Offered

Numerator: The number of patients who received or refused practical counseling to quit and received or refused FDA-approved cessation medications.

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-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.
   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-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.
   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-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.
   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-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.
   c. If Cognitive Impairment equals No, continue processing and proceed to check Tobacco Use Status.

7. 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-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.
   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-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.
   c. If Tobacco Use Status equals 1, 2, 3, 4, 5, 9, 10, 11, 12, 13 or 14, continue processing and proceed to check Tobacco Use Treatment Practical Counseling.

8. Check Tobacco Use Treatment Practical Counseling
   a. If Tobacco Use Treatment Practical Counseling is missing, the case will proceed to a Measure Category Assignment of X and will be rejected for the overall measure rate TOB-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.
   b. If Tobacco Use Treatment Practical Counseling equals 3, the case will proceed to Measure Category Assignment of D and will be in the Measure Population for the overall measure rate TOB-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.
   c. If Tobacco Use Treatment Practical Counseling equals 1 or 2, continue processing and proceed to ICD-9-CM Principal Diagnosis Code.

9. 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-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.

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.

10. 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-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.

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.

11. 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-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.

b. If Tobacco Use Status equals 1, 5, 9, 10, 12, 13 or 14, continue processing and proceed to Tobacco Use Treatment FDA-Approved Cessation Medication.

12. Check Tobacco Use Treatment FDA-Approved Cessation Medication

a. If Tobacco Use Treatment FDA-Approved 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-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.

b. If Tobacco Use Treatment FDA-Approved Cessation Medication equals 3, continue processing and proceed to Reason for No Tobacco Cessation Medication During Hospital Stay.

c. If Tobacco Use Treatment FDA-Approved 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-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.

13. Check Reason for No Tobacco Cessation Medication During Hospital Stay
    a. If Reason for No Tobacco Cessation Medication During Hospital Stay is missing, the case will proceed to a Measure Category Assignment of X and will be rejected for the overall measure rate TOB-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.
    b. If Reason for No Tobacco Cessation Medication During Hospital Stay 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-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.
    c. If Reason for No Tobacco Cessation Medication During Hospital Stay 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-2. Continue processing and proceed to Step 14 to Initialize Measure Category Assignment for sub-measure TOB-2a.

TOB-2a: Tobacco Use Treatment

Numerator: The number of patients who received practical counseling to quit and received FDA-approved cessation medications.

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

14. Initialize Measure Category Assignment for sub-measure TOB-2a to Measure Category Assignment of B. Do not change the Measure Category Assignment that was already calculated for the overall measure TOB-2. The rest of the algorithm will reset the appropriate Measure Category Assignment to TOB-2a.

15. Check Overall Rate Category Assignment
    a. If the Overall Rate Category Assignment equals B or X, the case will proceed to Measure Category Assignment of B and will not be in the Measure Population for the sub-measure TOB-2a. Stop processing.
    b. If Overall Rate Category Assignment equals D or E, continue processing and proceed to recheck Referral for Tobacco Use Treatment Practical Counseling.

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

17. 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-2a. 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.

18. 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-2a. 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.

19. 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-2a. Stop processing.
    b. If Tobacco Use Status equals 1, 5, 9, 10, 12, 13 or 14, continue processing and proceed to recheck Tobacco Use Treatment FDA-Approved Cessation Medication.

20. Recheck Tobacco Use Treatment FDA-Approved Cessation Medication
    a. If Tobacco Use Treatment FDA-Approved 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-2a. Stop processing.
    b. If Tobacco Use Treatment FDA-Approved 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-2a. Stop processing.
    c. If Tobacco Use Treatment FDA-Approved Cessation Medication equals 3, continue processing and proceed to recheck Reason for No Tobacco Cessation Medication During Hospital Stay.

21. Recheck Reason for No Tobacco Cessation Medication During Hospital Stay
    a. If Reason for No Tobacco Cessation Medication During Hospital Stay equals N, the case will proceed to Measure Category Assignment of D and will be in the Measure Population for sub-measure TOB-2a. Stop processing.
    b. If Reason for No Tobacco Cessation Medication During Hospital Stay equals Y, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population for sub-measure TOB-2a. Stop processing.

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.

	TOB-3	**TOB-3a**
Included Populations:	Patients who refused a prescription for FDA- Approved tobacco cessation medication at discharge. Patients who refused a referral to evidence-based outpatient counseling.	Not Applicable

	TOB-3	TOB-3a
Excluded Populations: (for FDA approved medications only)	Smokeless tobacco users Pregnant smokers Light smokers Patients with reasons for not administering FDA-approved cessation medication.	Smokeless tobacco users Pregnant smokers Light smokers Patients with reasons for not administering FDA- approved cessation medication.
Data Elements	*ICD-9-CM Other Diagnosis Codes* *ICD-9-CM Principal Diagnosis Code* *Prescription for Tobacco Cessation Medication* *Reason for No Tobacco Cessation Medication at Discharge* *Referral for Outpatient Tobacco Cessation Counseling* *Tobacco Use Status*	*ICD-9-CM Other Diagnosis Codes* *ICD-9-CM Principal Diagnosis Code* *Prescription for Tobacco Cessation Medication* *Reason for No Tobacco Cessation Medication at Discharge* *Referral for Outpatient Tobacco Cessation Counseling* *Tobacco Use Status*

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:

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- Lightwood JM. The economics of smoking and cardiovascular disease. *Prog Cardiovasc Dis*. 2003 Jul-Aug;46(1):39-78.
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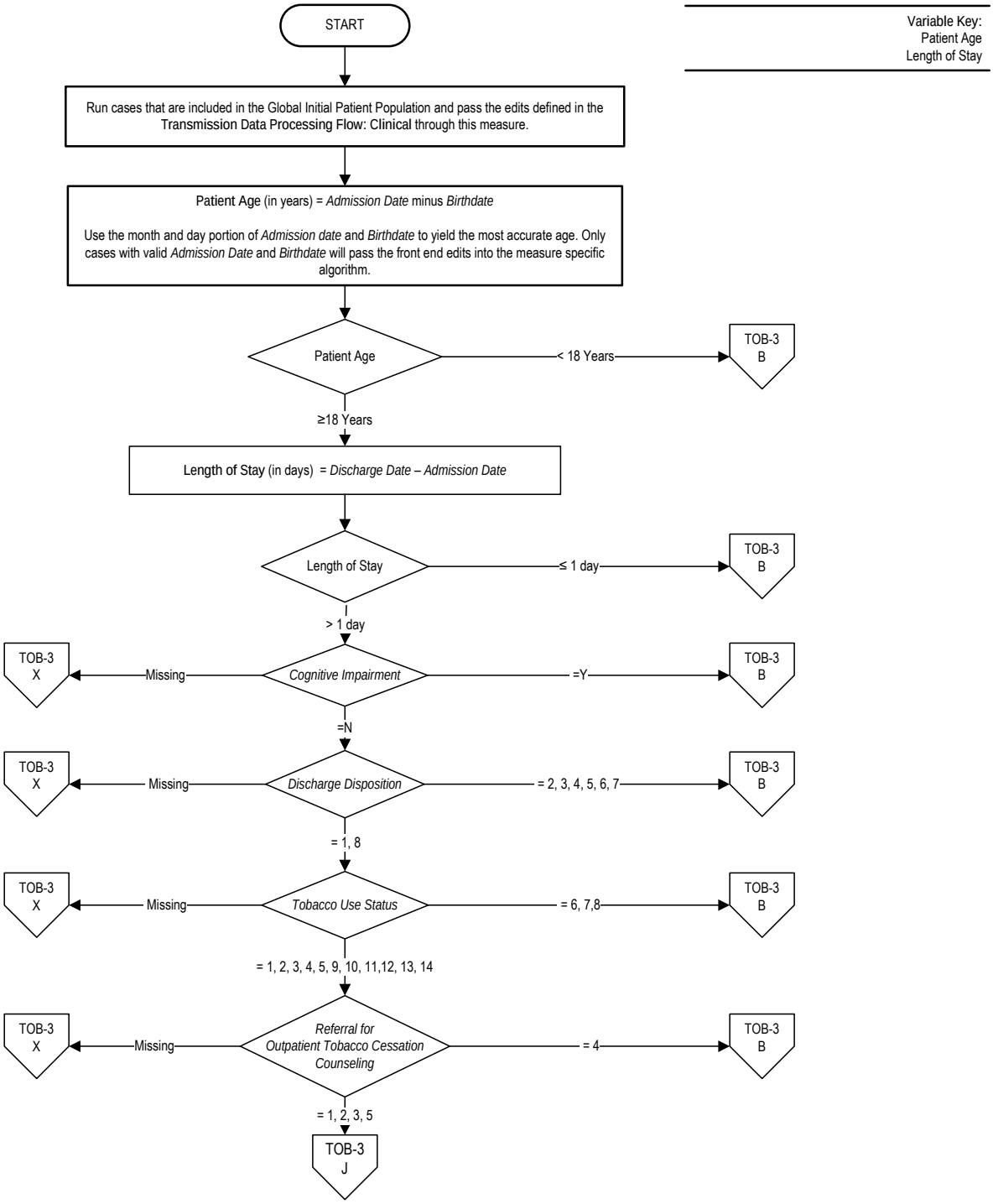
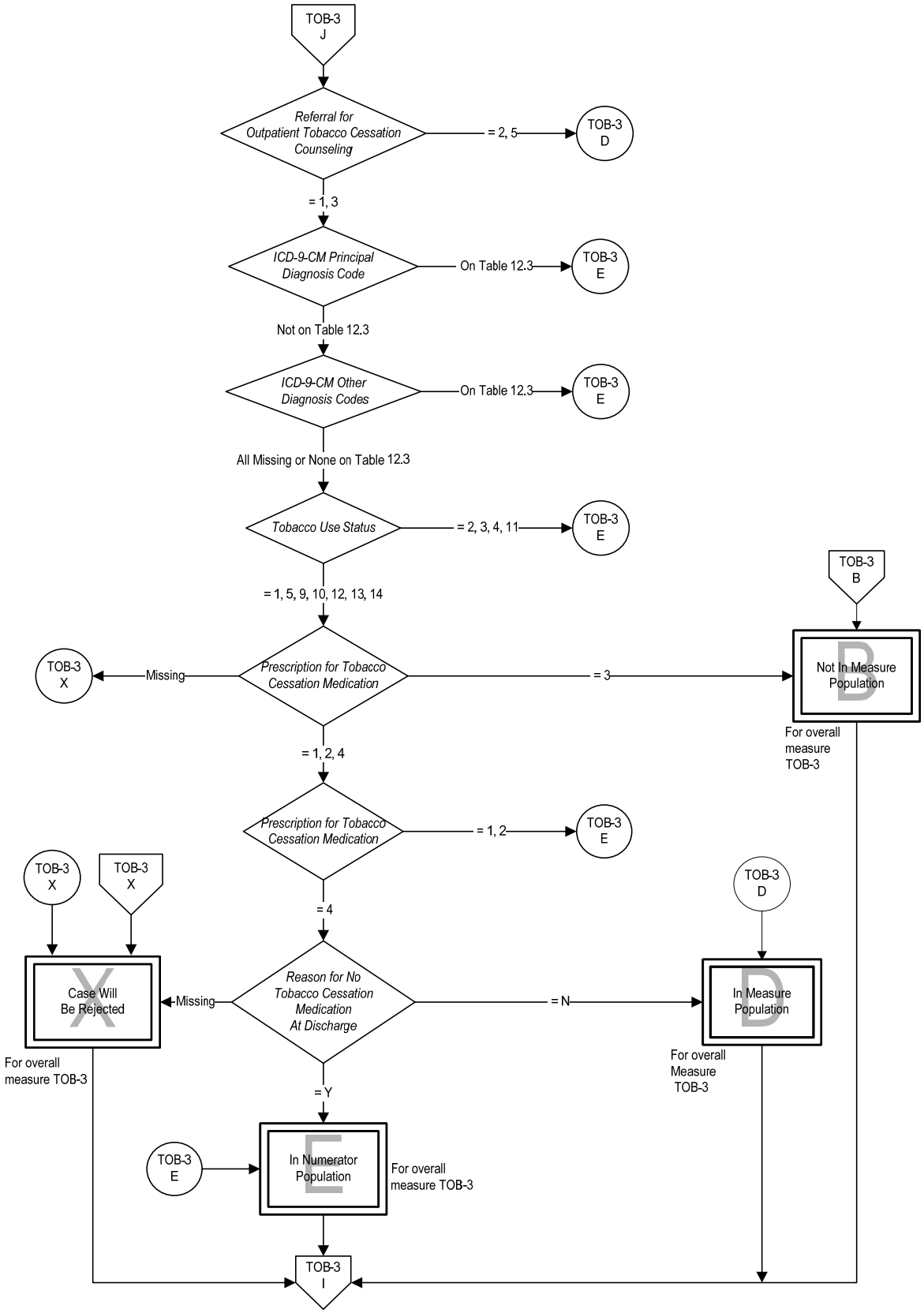
- Rigotti NA, Munafo MR, Stead LF. Smoking cessation interventions for hospitalized smokers: a systematic review. *Arch Intern Med*. 2008 Oct 13;168(18):1950-60.

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.

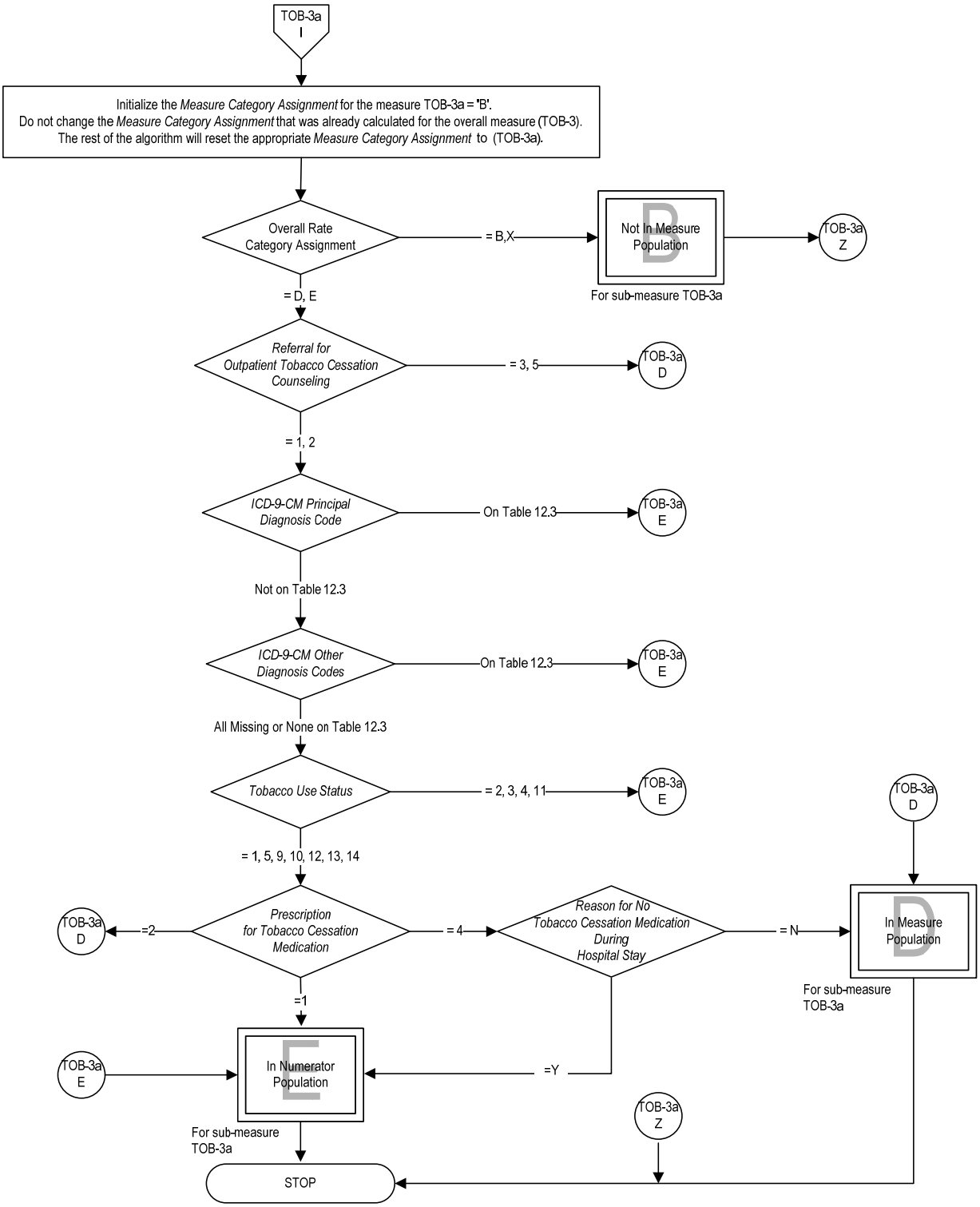



TOB-3 J
Referral for Outpatient Tobacco Cessation Counseling
= 2, 5
TOB-3 D
= 1, 3
ICD-9-CM Principal Diagnosis Code
On Table 12.3
TOB-3 E
Not on Table 12.3
ICD-9-CM Other Diagnosis Codes
On Table 12.3
TOB-3 E
All Missing or None on Table 12.3
Tobacco Use Status
= 2, 3, 4, 11
TOB-3 E
= 1, 5, 9, 10, 12, 13, 14
TOB-3 B
TOB-3 X
Missing
Prescription for Tobacco Cessation Medication
= 3
D
Not In Measure Population
For overall measure TOB-3
= 1, 2, 4
Prescription for Tobacco Cessation Medication
= 1, 2
TOB-3 E
TOB-3 X
TOB-3 X
= 4
TOB-3 D
X
Case Will Be Rejected
Missing
Reason for No Tobacco Cessation Medication At Discharge
= N
D
In Measure Population
For overall measure TOB-3
For overall Measure TOB-3
= Y
TOB-3 E
E
In Numerator Population
For overall measure TOB-3
TOB-3 I

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.



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.

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.

21. 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.

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

Measure Set: Tobacco Treatment (TOB)

Set Measure ID #: TOB-4

Performance Measure Name: Tobacco Use: Assessing Status after Discharge

Description: Discharged patients who are identified through the screening process as having used tobacco products (cigarettes, smokeless tobacco, pipe, and cigars) within the past 30 days who are contacted within 30 days after hospital discharge and follow-up information regarding tobacco use status is collected.

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, 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 brief clinician advice, individual, group, or telephone counseling, and use of the FDA-approved cessation 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) can be 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. 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 in other care settings (Rigotti 2008).

Type of Measure: Outcome

Improvement Noted As: Increase in the rate

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

Included Populations: Not Applicable

Excluded Populations: None

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

Denominator Statement: The number of discharged patients 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 not current tobacco users
- Patients who expired
- Patients who have a duration of stay less than or equal to one day
- Patients with a length of stay greater than 120 days
- Patients discharged to another hospital
- Patients who left against medical advice
- Patients discharged to another health care facility
- Patients discharged to home or another health care facility for hospice care
- Patients who do not reside in the United States
- Patients who do not have a phone or cannot provide contact information
- Patients discharged to a detention facility, jail or prison

Data Elements:
- *Admission Date*
- *Birthdate*
- *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.

The measures intent as described in the measures 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 *Tobacco use Discharge Status 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 *Tobacco 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:

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- Baumeister SE, Schumann A, Meyer C, et al. Effects of smoking cessation on health care use: is elevated risk of hospitalization among former smokers attributable to smoking-related morbidity? *Drug Alcohol Depend*. 2007 May 11;88(2-3):197-203. Epub 2006 Nov 21.
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- Fiore MC et al. Treating Tobacco Use and Dependence: 2008 Update. Clinical Practice Guideline. Rockville, MD: U.S. Department of Health and Human Services. Public Health Service. May 2008.
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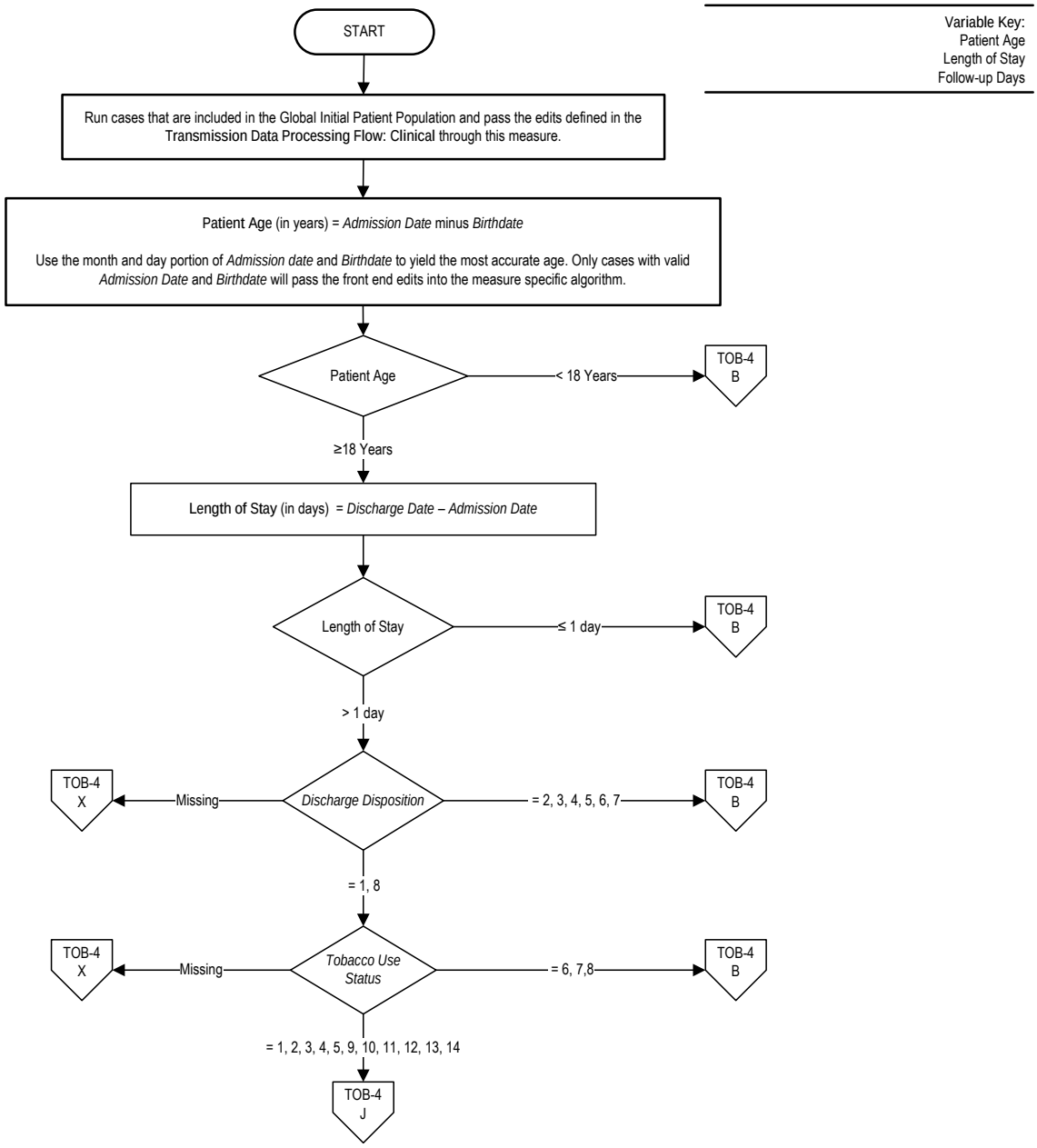
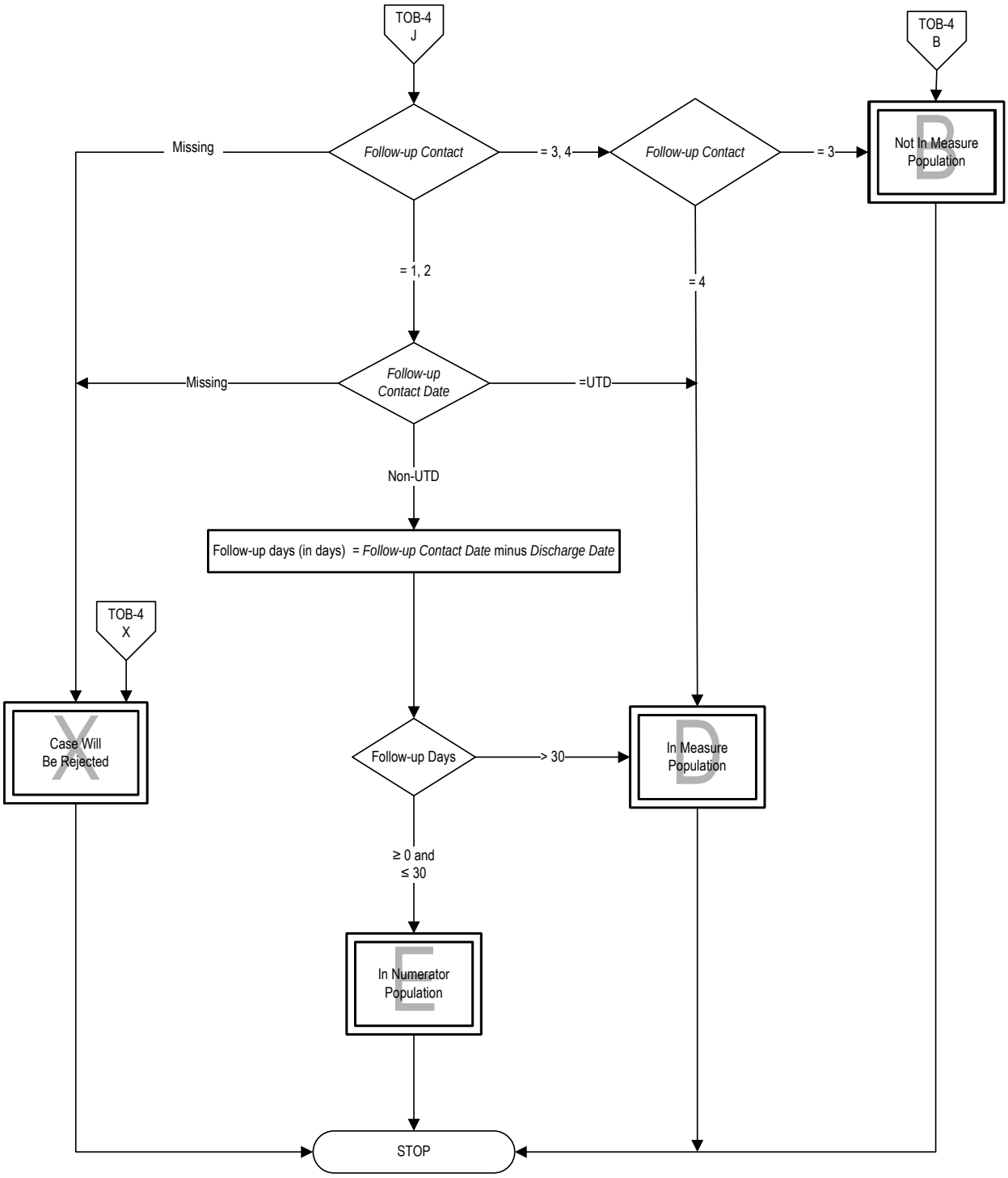
TOB-4: Tobacco Use: Assessing Status after Discharge

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

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




TOB-4
J
TOB-4
B
Missing
Follow-up Contact
= 3, 4
Follow-up Contact
= 3
Not In Measure
Population
B
= 1, 2
= 4
Missing
Follow-up
Contact Date
=UTD
Non-UTD
Follow-up days (in days) = Follow-up Contact Date minus Discharge Date
TOB-4
X
Case Will
Be Rejected
X
Follow-up Days
> 30
In Measure
Population
D
≥ 0 and
≤ 30
In Numerator
Population
E
STOP

TOB-4: Tobacco 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 tobacco use status is collected.

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

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 Tobacco Use Status.

7. 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. Stop processing.
   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. Stop processing.
   c. If Tobacco Use Status equals 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, or 14 continue processing and proceed to check Follow-up Contact.

8. 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 or 4, continue processing and proceed to recheck Follow-up Contact.
   c. If Follow-up Contact equals 1or 2, continue processing and proceed to check Follow-up Contact Date.

9. Recheck Follow-up Contact
   a. 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. Stop processing.
   b. If Follow-up Contact equals 4, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

10. 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 Follow-up Days Calculation.

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

12. 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.