Measure #404: Anesthesiology Smoking Abstinence – National Quality Strategy Domain: Effective Clinical Care

2017 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Intermediate Outcome

DESCRIPTION:
The percentage of current smokers who abstain from cigarettes prior to anesthesia on the day of elective surgery or procedure

INSTRUCTIONS:
This measure is to be reported each time an elective surgery, diagnostic, or pain procedure is performed under anesthesia during the performance period. There is no diagnosis associated with this measure. It is anticipated that eligible clinicians who provide the listed anesthesia services as specified in the denominator coding will submit this measure.

Measure Reporting:
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:
All patients aged 18 years and older who are evaluated in preparation for elective surgical, diagnostic, or pain procedure requiring anesthesia services in settings that include routine screening for smoking status prior to the day of the surgery or procedure with instruction to abstain from smoking on the day of surgery or procedure

Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years on date of encounter
AND
Patient procedure during the performance period (CPT): 00100, 00102, 00103, 00104, 00120, 00124, 00126, 00140, 00142, 00144, 00145, 00147, 00148, 00160, 00162, 00164, 00170, 00172, 00174, 00176, 00190, 00192, 00210, 00211, 00212, 00214, 00215, 00216, 00218, 00220, 00222, 00300, 00320, 00322, 00330, 00340, 00342, 00352, 00400, 00402, 00404, 00406, 00410, 00450, 00454, 00470, 00474, 00476, 00500, 00506, 00520, 00522, 00524, 00526, 00528, 00530, 00532, 00534, 00537, 00539, 00540, 00541, 00542, 00546, 00548, 00550, 00560, 00570, 00580, 00600, 00604, 00620, 00625, 00626, 00630, 00632, 00635, 00640, 00670, 00700, 00702, 00730, 00740, 00750, 00752, 00756, 00770, 00790, 00792, 00794, 00796, 00797, 00800, 00802, 00810, 00820, 00830, 00832, 00840, 00842, 00844, 00846, 00848, 00851, 00854, 00860, 00862, 00864, 00865, 00866, 00868, 00870, 00872, 00873, 00880, 00882, 00902, 00904, 00906, 00908, 00910, 00912, 00914, 00916, 00919, 00920, 00921, 00922, 00924, 00926, 00928, 00930, 00932, 00934, 00936, 00938, 00940, 00942, 00944, 00946, 00950, 00952, 01112, 01120, 01130, 01140, 01150, 01160, 01170, 01173, 01180, 01190, 01200, 01202, 01210, 01212, 01214, 01215, 01220, 01230, 01232, 01234, 01250, 01260, 01270, 01272, 01274, 01320, 01322, 01340, 01360, 01380, 01390, 01392, 01400, 01402, 01404, 01420, 01430, 01432, 01440, 01442, 01444, 01462, 01464, 01470, 01472, 01474, 01480, 01482, 01484, 01486, 01490, 01500, 01502, 01520, 01522, 01610, 01612, 01620, 01622, 01630, 01634, 01636, 01638, 01650, 01652, 01654, 01656, 01670, 01680, 01682, 01710, 01712, 01714, 01716, 01730, 01732, 01740, 01742, 01744, 01756, 01758, 01760, 01770, 01772, 01780, 01782, 01810, 01812, 01814, 01820, 01822, 01824, 01826, 01832, 01840, 01842, 01844, 01850, 01852, 01860, 01916, 01920, 01922, 01924, 01925, 01926, 01930, 01931, 01932, 01933, 01935, 01936, 01951, 01952, 01954, 01960, 01961, 01991, 01992, 27095, 27096, 62320, 62321, 62322, 62323, 62324, 62325, 62327, 64400, 64402, 64404, 64405, 64408, 64410, 64413, 64415, 64416, 64417, 64418, 64420, 64421, 64425, 64430, 64435, 64445, 64446, 64447, 64448, 64449, 64450,
Current smoker (e.g. cigarette, cigar, pipe, e-cigarette or marijuana): G9642
Elective surgery: G9643
Received instruction from the anesthesiologist or proxy prior to the day of surgery to abstain from smoking on the day of surgery: G9497

**NUMERATOR:**
Current smokers and who abstained from smoking prior to anesthesia on the day of surgery or procedure

**Definition:**
Abstinence - Defined by either patient self-report or an exhaled carbon monoxide level of < 10 ppm.

**Numerator Options:**
- **Performance Met:** Patients who abstained from smoking prior to anesthesia on the day of surgery or procedure (G9644)
- **Performance Not Met:** Patients who did not abstain from smoking prior to anesthesia on the day of surgery or procedure (G9645)

**RATIONALE:**
Each year, millions of cigarette smokers require surgery and anesthesia in the US. Smoking is a significant independent risk factor for perioperative heart, lung, and wound-related complications. There now is good evidence that perioperative abstinence from smoking reduces the risk of heart, lung, and wound-related perioperative complications, and that the perioperative period represents a “teachable moment” for smoking cessation that improves long-term abstinence rates; over 100,000 smokers quit in the US each year as a result of having a surgical procedure. Although evidence suggests that the longer the duration of abstinence the better, there is also evidence that even brief abstinence (e.g., abstaining from smoking on the morning of surgery) can dramatically reduce both nicotine and carbon monoxide levels and reduce risks for complications such as intraoperative myocardial ischemia. Evidence shows that tobacco interventions can 1) increase perioperative abstinence rates in surgical patients who smoke and 2) decrease the rate of perioperative complications. Thus, this measure, which incentivizes the provision of tobacco interventions by clinicians as a part of routine clinical practice, will significantly improve the health of smokers who require surgery.

**CLINICAL RECOMMENDATION STATEMENTS:**
In its Clinical Practice Guideline for Treating Tobacco Use and Dependence, the US Public Health Services recognizes the important role that clinicians play in delivering tobacco use intervention services, strongly recommending that clinicians screen all adults for tobacco use and provide tobacco cessation interventions for those who use tobacco products.

The ASA Statement on Smoking Cessation states: Approximately one of every five American adults smoke cigarettes and up to half of these individuals will die prematurely because of their use of tobacco. The majority of these smokers want to quit. Each year, millions of cigarette smokers require surgery and anesthesia in the United States. Smoking has a direct impact on postoperative outcomes such as wound healing, and abstinence from smoking may improve these outcomes. In addition, surgery may represent a teachable moment for promotion of long-term smoking cessation: i.e., smokers may be more receptive to messages urging them to quit. For these reasons, the scheduling of surgery represents an excellent opportunity for cigarette smokers to quit smoking. Patients should abstain from smoking for as long as possible both before and after surgery, and they should obtain help in doing so. Patients can receive help in a variety of ways, including telephone quitlines (1-800-QUITNOW), which are of proven efficacy and are now readily available to all Americans.
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2017 Registry Individual Measure Flow
#404: Anesthesiology Smoking Abstinence

Start

Denominator

Patient Age at Date of Service ≥ 18 years

No

Procedure as Listed in Denominator (1/1/2017 thru 12/31/2017)

No

Identified as Current Smoker G9642 or equivalent

No

Not Included in Eligible Population/Denominator

Yes

Elective Surgery G9643 or equivalent

Yes

Received Instruction from the Anesthesiologist or Proxy Prior to the day of Surgery to Abstain from Smoking on the Day of Surgery G9497 or equivalent

Yes

Include in Eligible Population/Denominator (8 procedures) d

Numerator

Patients Who Abstained From Smoking Prior to Anesthesia on the Day of Surgery or Procedure

Yes

Data Completeness Met + Performance Met G9644 or equivalent (4 procedures) a

No

Patients Who Did Not Abstain From Smoking Prior to Anesthesia on the Day of Surgery or Procedure

Yes

Data Completeness Met + Performance Not Met G9645 or equivalent (3 procedures) c

No

Data Completeness Not Met Quality-Data Code or equivalent not reported (1 procedure) 

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The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.
2017 Registry Individual Measure Flow Calculation
#404: Anesthesiology Smoking Abstinence

**SAMPLE CALCULATIONS:**

<table>
<thead>
<tr>
<th>Data Completeness</th>
<th>Performance Met (a=4 procedures) + Performance Not Met (c= 3 procedures)</th>
<th>7 procedures</th>
<th>87.50%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eligible Population / Denominator (d=8 procedures)</td>
<td>8 procedures</td>
<td></td>
</tr>
<tr>
<td>Performance Rate</td>
<td>Performance Met (a=4 procedures)</td>
<td>4 procedures</td>
<td>57.14%</td>
</tr>
<tr>
<td></td>
<td>Data Completeness Numerator (7 procedures)</td>
<td>7 procedures</td>
<td></td>
</tr>
</tbody>
</table>

* See the posted Measure Specification for specific coding and instructions to report this measure.

NOTE: Reporting Frequency: Procedure
Please refer to the specific section of the Measure Specification to identify the denominator and numerator information for use in reporting this Individual Measure.

1. Start with Denominator

2. Check Patient Age:
   a. If the Age is greater than or equal to 18 years of age on Date of Service and equals No during the measurement period, do not include in Eligible Patient Population. Stop Processing.
   b. If the Age is greater than or equal to 18 years of age on Date of Service and equals Yes during the measurement period, proceed to check Patient Diagnosis.

3. Check Encounter Performed:
   a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Encounter as Listed in the Denominator equals Yes, proceed to check Identified as Current Cigarette Smoker.

4. Check Identified as Current Smoker:
   a. If Identified as Current Smoker equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Identified as Current Smoker equals Yes, proceed to check Elective Surgery.

5. Check Elective Surgery:
   a. If Elective Surgery equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Elective Surgery equals Yes, proceed to check Seen Pre-Operatively by Anesthesiologist or Proxy Prior to the Day of Surgery.

6. Check Received Instruction from Smoking on the Day of Surgery by Anesthesiologist or Proxy prior to the Day of Surgery:
   a. If Received Instruction from Smoking on the Day of Surgery by Anesthesiologist or Proxy prior to the Day of Surgery equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Received Instruction from Smoking on the Day of Surgery by Anesthesiologist or Proxy prior to the Day of Surgery equals Yes, include in Eligible population.

7. Denominator Population:
   a. Denominator population is all Eligible Patients in the denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 8 procedures in the sample calculation.

8. Start Numerator

9. Check Patients Who Abstained From Smoking Prior to Anesthesia on the Day of Surgery or Procedure:
   a. If Patients Who Abstained From Smoking Prior to Anesthesia on the Day of Surgery or Procedure equals Yes, include in Data Completeness Met and Performance Met.
   b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 4 procedures in Sample Calculation.
c. If Patients Who Abstained From Smoking Prior to Anesthesia on the Day of Surgery or Procedure equals No, proceed to Patients Who Did Not Abstain From Smoking Prior to Anesthesia on the Day of Surgery or Procedure.

10. Check Patients Who Did Not Abstain From Smoking Prior to Anesthesia on the Day of Surgery or Procedure:

a. If Patients Who Did Not Abstain From Smoking Prior to Anesthesia on the Day of Surgery or Procedure equals Yes, include in Data Completeness Met and Performance Not Met.

b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter c equals 3 procedures in the Sample Calculation.

c. If to Patients Who Did Not Abstain From Smoking Prior to Anesthesia on the Day of Surgery or Procedure equals No, proceed to Data Completeness Not Met.

11. Check Data Completeness Not Met:

a. If Data Completeness Not Met equals No, Quality Data Code or equivalent not reported. 1 procedure has been subtracted from the data completeness numerator in the sample calculation.

SAMPLE CALCULATIONS:

Data Completeness=
Performance Met (a=4 procedures) + Performance Not Met (c= 3 procedures) = 7 procedures = 87.50%
Eligible Population / Denominator (d=8 procedures) = 8 procedures

Performance Rate=
Performance Met (a=4 procedures) = 4 procedures = 57.14%
Data Completeness Numerator (7 procedures) = 7 procedures