Measure #358: Patient-Centered Surgical Risk Assessment and Communication – National Quality Strategy Domain: Person and Caregiver-Centered Experience and Outcomes

2017 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Process

DESCRIPTION:
Percentage of patients who underwent a non-emergency surgery who had their personalized risks of postoperative complications assessed by their surgical team prior to surgery using a clinical data-based, patient-specific risk calculator and who received personal discussion of those risks with the surgeon

INSTRUCTIONS:
This measure is to be reported each time a procedure is performed during the performance period for patients who undergo non-emergency surgical procedures. There is no diagnosis associated with this measure. It is anticipated that eligible clinicians who perform the listed surgical procedures 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:
The total number of adult patients (age 18 and over) having had non-emergency surgery

Denominator Instructions: CPT Category I procedure codes billed by surgeons performing surgery on the same patient, submitted with modifier 62 (indicating two surgeons, i.e., dual procedures) will be included in the denominator population, therefore both surgeons will be fully accountable for the clinical action described in the measure.

Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years on date of encounter
AND
Patient encounter during the performance period (CPT): 10121, 10140, 10160, 10180, 11000, 11001, 11004, 11005, 11006, 11010, 11011, 11042, 11043, 11044, 11401, 11402, 11403, 11404, 11406, 11420, 11421, 11422, 11423, 11424, 11426, 11440, 11441, 11442, 11443, 11444, 11446, 11601, 11602, 11603, 11960, 14301, 15040, 15150, 15155, 15200, 15220, 15240, 15260, 15570, 15572, 15574, 15576, 15600, 15610, 15620, 15630, 15650, 15731, 15732, 15734, 15736, 15738, 15740, 15750, 15756, 15757, 15758, 15760, 15770, 15830, 15920, 15922, 15931, 15933, 15934, 15935, 15936, 15937, 15940, 15941, 15944, 15945, 15946, 15950, 15951, 15953, 15956, 15958, 19020, 19049, 19091, 19110, 19120, 19125, 19260, 19271, 19272, 19296, 19297, 19298, 19300, 19301, 19302, 19303, 19304, 19305, 19306, 19307, 19316, 19318, 19324, 19325, 19328, 19330, 19340, 19342, 19350, 19355, 19357, 19361, 19364, 19366, 19367, 19368, 19369, 19370, 19371, 19380, 19499, 20005, 20100, 20101, 20102, 20103, 20150, 20696, 20900, 20902, 20910, 20922, 20926, 20938, 20955, 20956, 20999, 21011, 21012, 21013, 21014, 21015, 21016, 21025, 21026, 21034, 21040, 21044, 21045, 21046, 21047, 21048, 21049, 21139, 21154, 21235, 21239, 21360, 21395, 21462, 21465, 21499, 21501, 21502, 21510, 21552, 21554, 21555, 21556, 21557, 21558, 21600, 21615, 21616, 21620, 21627, 21630, 21632, 21685, 21700, 21705, 21740, 21742, 21743, 21750, 21825, 21899, 21920, 21925, 21930, 21931, 21932, 21933, 21935, 21936, 22010, 22015, 22020, 22101, 22102, 22110, 22112, 22114, 22206, 22207, 22210, 22212, 22214, 22220, 22222, 22224, 22318, 22319, 22324, 22325, 22326, 22327,
AND NOT
DENOMINATOR EXCLUSION:
Emergency surgery: G9752

NUMERATOR:
Documentation of empirical, personalized risk assessment based on the patient's risk factors with a validated risk calculator using multi-institutional clinical data, the specific risk calculator used, and communication of risk assessment from risk calculator with the patient and/or family

Numerator Instructions: The number of adult patients (age 18 and over) having had non-emergency surgery as defined by CPT codes during the performance period who had their personalized risk of procedure-specific, 30-day postoperative complications assessed and documented by their surgeon prior to surgery using a clinical data-based, patient-specific risk-calculator* and who had a documented personal discussion with their surgeon about these risks.

The procedure-specific, patient-specific, data-based risk calculator should be based on a validated, risk-adjusted statistical model predicting 30-day postoperative complications (detailed below) for the procedure that the patient is to undergo. Risk calculations should be based on preoperative patient-specific clinical data, and should include the following groups of variables: patient demographic characteristics (eg, age, gender); relevant lifestyle and clinical risk factors (e.g., smoking status, American Society of Anesthesiologists class, body mass index); patient comorbidities (e.g., diabetes; neurologic event/disease; disseminated cancer); and procedure type.

Postoperative complications should include 30-day risk-adjusted mortality, 30-day risk-adjusted overall morbidity (superficial surgical site infection, deep incisional surgical site infection, wound dehiscence, pneumonia, deep venous thrombosis; pneumonia; renal failure; urinary tract infection; prolonged ventilator dependence; bleeding complications; sepsis; and pulmonary embolism), serious complications (cardiac arrest; myocardial infarction, pneumonia; progressive renal insufficiency; acute renal failure; pulmonary embolism; deep venous thrombosis; return to the operating room deep incisional surgical site infection; organ space surgical site infection; systemic sepsis; unplanned intubation; urinary tract infection; and wound dehiscence), surgical site infection, and average length of stay.

Risk calculators based on multi-institutional, validated clinical data are acceptable for this measure. ACS NSQIP now offers a risk calculator, which can be used for operations in many surgical subspecialty (Risk calculator link). Other risk calculators are available and acceptable for this measure, including but not limited to the risk calculator from the Society of Thoracic Surgeons.

Numerator Options:
Performance Met: Documentation of patient-specific risk assessment with a risk calculator based on multi-institutional clinical data, the specific risk calculator used, and communication of risk assessment from risk calculator with the patient or family (G9316)

OR

Performance Not Met: Documentation of patient-specific risk assessment with a risk calculator based on multi-institutional clinical data, the specific risk calculator used, and communication of risk assessment from risk calculator with the patient or family not completed (G9317)
RATIONALE:
Preoperative risk assessment and communication between surgeons and patients is critical for effective informed consent and shared decision making in surgical care. Shared decision-making is considered an integral component of patient-centered care, especially for preference-sensitive issues. Evidence suggests that there is room for improving communication and the informed consent/shared decision-making processes between physicians and patients. Use of a risk calculator helps improve the quality of the informed consent/shared decision-making process by providing a personalized, customized, empirically-based estimate of a patient’s risk of post-operative complications. Moreover, evidence suggests that sharing numeric estimates of patient-specific risk may enhance patient trust in providers.

CLINICAL RECOMMENDATION STATEMENTS:
Preoperative risk assessment and communication between surgeons and patients is critical for effective informed consent and shared decision making in surgical care. Shared decision-making is considered an integral component of patient-centered care, especially for preference-sensitive issues. Evidence suggests that there is room for improving communication and the informed consent/shared decision-making processes between physicians and patients. Use of a risk calculator helps improve the quality of the informed consent/shared decision-making process by providing a personalized, customized, empirically-based estimate of a patient’s risk of post-operative complications. Moreover, evidence suggests that sharing numeric estimates of patient-specific risk may enhance patient trust in providers.

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2017 Registry Individual Measure Flow

#358: Patient-Centered Surgical Risk Assessment and Communication

![Flowchart Diagram]

**SAMPLE CALCULATIONS:**

Data Completeness:

Performance Met (a=5 procedures) + Performance Not Met (c=2 procedures) = 7 procedures = 87.50%

Eligible Population / Denominator (d=8 procedures) = 8 procedures

Performance Rate:

Performance Met (a=5 procedures) = 5 procedures = 71.43%

Data Completeness Numerator (7 procedures) = 7 procedures

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

NOTE: Reporting Frequency: 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

#358: Patient-Centered Surgical Risk Assessment and Communication

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 Patient Age greater than or equal to 18 Years of Age at Date of Service and equals No, do not include in Eligible Population or Denominator. Stop Processing.
   b. If Patient Age greater than or equal to 18 Years of Age at Date of Service and equals Yes, proceed to check Non-Emergency Surgery.

3. Check Non-Emergency Surgery:
   a. If Non-Emergency Surgery equals No, do not include in Eligible Population or Denominator. Stop Processing.
   b. If Non-Emergency Surgery equals Yes, proceed to check Encounter Performed.

4. Check Encounter Performed:
   a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Population or Denominator. Stop Processing.
   b. If Encounter as Listed in the Denominator equals Yes, include in the Eligible population or Denominator.

5. 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.

6. Start Numerator

7. Check Documentation of Patient-Specific Risk Assessment with a Risk Calculator Based on Multi-Institutional Clinical Data, the Specific Risk Calculator Used, and Communication of Risk Assessment from Risk Calculator with the Patient or Family:
   a. If Documentation of Patient-Specific Risk Assessment with a Risk Calculator Based on Multi-Institutional Clinical Data, the Specific Risk Calculator Used, and Communication of Risk Assessment from Risk Calculator with the Patient or Family equals Yes, include in Reporting 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 5 procedures in Sample Calculation.
   c. If Documentation of Patient-Specific Risk Assessment with a Risk Calculator Based on Multi-Institutional Clinical Data, the Specific Risk Calculator Used, and Communication of Risk Assessment from Risk Calculator with the Patient or Family equals No, proceed to check Documentation of Patient-Specific Risk Assessment with a Risk Calculator Based on Multi-Institutional Clinical Data, the Specific Risk Calculator Used, and Communication of Risk Assessment from Risk Calculator with the Patient or Family Not Completed.
8. Check Documentation of Patient-Specific Risk Assessment with a Risk Calculator Based on Multi-Institutional Clinical Data, the Specific Risk Calculator Used, and Communication of Risk Assessment from Risk Calculator with the Patient or Family Not Completed:

   a. If Documentation of Patient-Specific Risk Assessment with a Risk Calculator Based on Multi-Institutional Clinical Data, the Specific Risk Calculator Used, and Communication of Risk Assessment from Risk Calculator with the Patient or Family Not Completed equals Yes, include in Reporting Met and Performance Not Met.

   b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 2 procedures in the Sample Calculation.

   c. If Documentation of Patient-Specific Risk Assessment with a Risk Calculator Based on Multi-Institutional Clinical Data, the Specific Risk Calculator Used, and Communication of Risk Assessment from Risk Calculator with the Patient or Family Not Completed equals No, proceed to Data Completeness Not Met.

9. Check Data Completeness Not Met:

   a. If Data Completeness Not Met, the Quality Data Code or equivalent was not reported. 1 procedure has been subtracted from the data completeness numerator in sample calculation.

### SAMPLE CALCULATIONS:

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<tr>
<th>Data Completeness=</th>
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