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**Specifications for Registry Reporting**

American Society of Plastic Surgeons® (ASPS®)

**Rhinoplasty**  
Performance Measurement Set

***ASPS Approved: 9-26-18***

## Specifications for Registry Reporting

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## Specifications for Registry Reporting

## Rhinoplasty

## Measure Development Work Group

## Work Group Members

<u>Name</u>	<u>Location</u>	<u>Practice Type and Size or Organization Representing</u>
Rod Rohrich, MD (co-chair)	Dallas Plastic Surgery Institute and Department of Plastic Surgery at UT Southwestern Medical Center	ASPS- Private- solo
Michele Manahan, MD (co-chair)	Department of Plastic and Reconstructive Surgery at Johns Hopkins University School of Medicine	ASPS- Academic
Jamil Ahmad, MD	The Plastic Surgery Clinic Mississauga, ON Canada	ASPS- Small plastic surgery group practice (2-5 plastic surgeons)
Robert Gilman, MD, DMD	University of Michigan Ann Arbor, MI	ASPS- Academic
Samuel Lin, MD	Beth Israel Deaconess Medical Center/Harvard Medical School	ASPS- Academic
Sammy Sinno, MD	TLKM Plastic Surgery Chicago, IL	ASPS- Small plastic surgery group practice (2-5 plastic surgeons)
Derek Steinbacher, MD, DDS	Yale Plastic Surgery, Yale School of Medicine,	ASPS- Academic
Alan Matarasso, MD	Alan Matarasso, Private Practice New York, NY	ASPS Executive Committee Liaison- non-voting
Oren Friedman, MD	University of Pennsylvania Philadelphia, PA	AAO-HNS
Lisa Ishii, MD, MHS	Johns Hopkins Baltimore, MD	AAO-HNS
Benjamin Marcus, MD	University of Wisconsin Madison, WI	AAO-HNS
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### Work Group Staff

#### American Society of Plastic Surgeons

Caryn Davidson, MA (lead project staff)

Katelyn Stermer, MPH

Carol Sieck, PhD

### Intended Audience, Care Setting and Patient Population

These measures are designed for use by physicians and other health care professionals who perform Rhinoplasty procedures on patients 15 years and older.

*These measures are meant to be used to calculate performance and/or reporting at the individual clinician level.*

### Importance of Topic

#### Incidence, Prevalence, & Cost

Rhinoplasty—a surgical procedure that alters the shape or appearance of the nose while preserving or enhancing the nasal airway—ranks among the most commonly performed cosmetic procedures in the United States, with >200,000 procedures reported annually. As facial cosmetic enhancement has become more routine and socially acceptable, the procedure has increased in popularity in the United States and around the world. In Latin American countries, rhinoplasty is the most commonly performed facial cosmetic procedure. (Ishii, Tollefson, Basura et al 2017)

Rhinoplasty is more than just a cosmetic procedure because it often seeks to enhance function by improving nasal respiration and relieving obstruction that is congenital or acquired. This dual role is reflected in the following qualifying statements to the term rhinoplasty as used in the AAO-HNS guideline (Ishii, Tollefson, Basura et al 2017) and in this measure set as well:

- Rhinoplasty is defined as a surgical procedure that alters the shape or appearance of the nose while preserving or enhancing the nasal airway. The change in appearance may be a consequence of addressing a functional abnormality (eg, deviated caudal septum, nasal valve compromise) and for cosmetic purposes (eg, an incidental cosmetic procedure).
- The primary reason for surgery can be aesthetic, functional, or both, and it may include adjunctive procedures on the nasal septum, nasal valve, nasal turbinates, or the paranasal sinuses.
- When these adjunctive procedures, however, are performed without an impact on nasal shape or appearance, they do not meet the definition of rhinoplasty and are therefore excluded from further consideration in this measure set—for example, septoplasty alone without an incidental or intended cosmetic component.

### Technical Specifications: Introduction

The performance measures found in this document have been developed to enable the physician to track his or her performance in individual patient care across patient populations. **Please note that the**

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**provision of surgical procedures must be based on individual patient needs and professional judgment.**

Performance measures are not to be used as a substitute for clinical guidelines and individual physician clinical judgment. There may be instances where an individual patient falls outside the parameters for the performance measure(s); however, this does not necessarily mean that they should not have the procedure. Whether or not a patient should undergo a specific procedure is a decision that needs to be made between the patient and the physician while weighing the risks and benefits of the procedure, along with individual patient preference.

There are several data sources available for collecting performance measures; generally different data sources require different sets of measure specifications, due to the structure of the systems storing the data.

Quality measure technical specifications for administrative data sources are developed with administrative code sets –ICD-10-CM and CPT, for example. A measure intended for administrative data source use or reporting may have significant differences in the specifications due to the nature of the various data sources. In administrative data sources, administrative or billing codes are typically used to identify eligible populations and reported immediately following the provision of care.

Quality measure technical specifications for electronic data sources are developed in alignment with national standards for clinical quality measures. Based on a measure's intended data sources, coding terminology recommendations and tools are used to create specifications to allow for clinical quality measure reporting. In electronic clinical data sources, data can be aggregated over a specific time period and also allow for greater ability to express certain types of data through use of the recommended terminologies for electronic sources.

The Centers for Medicare and Medicaid Services (CMS) developed *A Blueprint for the Measures Management System*, which provides guidance related to the development, implementation, and maintenance of clinical quality measures. Specific to eQMs, this resource includes the recommended vocabularies used to develop the value sets used in the measures. The Blueprint can be found at the following webpage: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/MeasuresManagementSystemBlueprint.html>

When expressing clinical concepts found within a measure, specifically for those electronically specified, the Value Set Authority Center (VSAC) is used as a repository for the value sets. The VSAC serves as a repository for value sets in various stages of development, from draft to published, and allows for maintenance of value sets as updates are made to terminologies. It also allows measure developers to search for value sets currently in the VSAC and stewarded by another organization which could potentially be reused in a measure, as an effort towards harmonization with existing value sets so as not to duplicate value sets already in use with the same or similar clinical concepts. The VSAC can be accessed at the following webpage: <https://vsac.nlm.nih.gov/>

The Quality Data Model (QDM) is a framework used to categorize clinical concepts used in quality measures, as well as the relationships among them for electronic specification. The QDM allows for an Health Quality Measures Format (HQMF) rendering of logic using the Measure Authoring Tool (MAT) to express complex measure logic, and subsequently export measures in several formats, currently including a human-readable document, which can be viewed in a web browser, and the XML.

Links to these tools are found below:

QDM: <https://ecqi.healthit.gov/qdm>

MAT: <https://www.emasuretool.cms.gov/>

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CMS and the Office of the National Coordinator for Health IT (ONC) host a website, the Electronic Clinical Quality Information Resource Center (eCQI Resource Center), which is designed to serve as a one-stop shop for all resources related to eCQM development.

The eCQI Resource Center can be accessed at: <https://ecqi.healthit.gov/ecqm>

### Measure Exceptions

#### Measure Exclusions

ASPS follows the PCPI process of distinguishing between measure exceptions and measure exclusions. Exclusions arise when the intervention required by the numerator is not appropriate for a group of patients who are otherwise included in the initial patient or eligible population of a measure (i.e., the denominator). Exclusions are absolute and are to be removed from the denominator of a measure and therefore clinical judgment does not enter the decision.

#### Measure Exceptions

Exceptions are used to remove a patient from the denominator of a performance measure when the patient does not receive a therapy or service AND that therapy or service would not be appropriate due to patient-specific reasons. The patient would otherwise meet the denominator criteria. Exceptions are not absolute, and are based on clinical judgment, individual patient characteristics, or patient preferences.

For process, structural, and outcome measures, the PCPI provides two categories of exception reasons for which a patient may be removed from the denominator of an individual measure.

#### Medical reason(s)

- Contraindicated in patient (potential allergy due to previous reported allergic history, potential adverse drug interaction, other)
- Already received/performed
- Intolerant (therapy was tried and the patient was intolerant)
- Other medical reason(s)

#### Patient or Non-medical reason(s)

- Patient refused/declined
- Access issues or insurance coverage/payor-related limitations (patient not covered for treatment)
- Patient functional limitations
- Patient preference: Social reason(s) (eg, family or support system not supportive of intervention/treatment); Religious

These measure exception categories are not available uniformly across all measures; for each measure, there must be a clear rationale to permit an exception for a medical, patient, or system reason. For some measures, examples have been provided in the measure exception language of instances that would constitute an exception. Examples are intended to guide clinicians and are not all-inclusive lists of all possible reasons why a patient could be excluded from a measure. There are different approaches for reporting measure exceptions, depending on whether the measure is being reported from an electronic clinical data source or an administrative data source.

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### Electronic Clinical Data Sources:

Value sets are included in the electronic clinical data source specifications for Medical Reason, Patient Reason and System Reason. These have been specified in SNOMED-CT and include a broad list of reasons that pertain to each type of exception and cover various situations. The contents of these value sets are broad, and facilitate re-use of the Medical, Patient, and System Reason value sets across measurement sets.

Although this methodology does not require the external reporting of more detailed exception data, the PCPI recommends that physicians document the *specific* reasons for exception in patients' medical records for purposes of optimal patient management and audit-readiness. The PCPI also advocates the systematic review and analysis of each physician's exceptions data to identify practice patterns and opportunities for quality improvement. For example, it is possible for implementers to calculate the percentage of patients that physicians have identified as meeting the criteria for exception.

Please refer to documentation for each individual measure for information on the acceptable exception categories and the codes and modifiers to be used for reporting.



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**Measure #1: Pre-surgical discussion of motivations and outcomes for patients undergoing rhinoplasty**

This measure may be used as an Accountability measure.

**Measure Description**

Percentage of patients aged 15 years and older who had a rhinoplasty procedure with whom motivation for surgery and outcome expectations were discussed and for whom the following information was documented:

1. Discussion of motivations and expectations\*
2. Surgical goals were realistic and exclusion criteria were reviewed

Definitions: \*Documentation of any of words motivation, expectation, realistic, or unrealistic AND one of the following terms or phrases will meet the measure:

Independent /Preference/Desire/Look like/Appearance

Size

Big(ger), small(er)

Shape

Straight, crooked, bent, hook, hump, bump, droop, flare, wide, thin, narrow, bulbous, pug, pointy, projection, rotation, flare, round, long(er), short(er)

Proportion/Balance

Tip, bridge, overly-prominent nostrils/nostril asymmetry, change of appearance with smiling (pulling or widening), general asymmetry

External shaming/Ridicule/Bullying/Advice/Critical/Tease(ing)

Self-esteem/Self-conscious

Facial Harmony/ gender characteristics/ ethnicity

Function

Breathe/Breathing

Repair injury

Snoring

Olfaction

Recurrent infection

Altered sensation,

Voice change

Measure Components	
<b>Numerator Statement</b>	<p>Patients with whom motivation for surgery and outcome expectations were discussed and for whom the following information was documented:</p> <ol style="list-style-type: none"> <li>1. Discussion of motivations and expectations</li> <li>2. Surgical goals were realistic and exclusion criteria were reviewed</li> </ol> <p>Definitions: *Documentation of any of words motivation, expectation, realistic, or unrealistic AND one of the following terms or phrases will meet</p>

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	<p>the measure:</p> <p>Independent /Preference/Desire/Look like/Appearance</p> <p>Size Big(ger), small(er)</p> <p>Shape Straight, crooked, bent, hook, hump, bump, droop, flare, wide, thin, narrow, bulbous, pug, pointy, projection, rotation, flare, round, long(er), short(er)</p> <p>Proportion/Balance Tip, bridge, overly-prominent nostrils/nostril asymmetry, change of appearance with smiling (pulling or widening), general asymmetry</p> <p>External shaming/Ridicule/Bullying/Advice/Critical/Tease(ing)</p> <p>Self-esteem/Self-conscious</p> <p>Facial Harmony/ gender characteristics/ ethnicity</p> <p>Function Breathe/Breathing Repair injury Snoring Olfaction Recurrent infection Altered sensation, Voice change</p>
<b>Denominator Statement</b>	All patients aged 15 years and older who had a rhinoplasty procedure
<b>Denominator Exceptions</b>	None
<b>Supporting Guideline</b>	Statement 1: Clinicians should ask all patients seeking rhinoplasty about their motivations for surgery and their expectations for outcomes, should provide feedback on whether those expectations are a realistic goal of surgery, and should document this discussion in the medical record. <i>Recommendation based on observational studies, with a preponderance of benefit over harm.</i> (AAO HNS 2017- Ishii, Tollefson, Basura et al 2017)
<b>Measure Importance</b>	
<b>Relationship to desired outcome</b>	The purpose of this measure is to diminish the potential for poor surgical outcomes caused by unrealistic patient motivations and expectations regarding rhinoplasty. These can result from a variety of factors, including poor understanding of the surgical procedure and its capabilities, as well as psychological pathology (eg, BDD). The surgical team is responsible for identifying and clarifying these factors. Failure to understand patients’ desires can lead to their dissatisfaction with the outcome, despite achieving the desired surgical results from the surgeon’s perspective. (AAO HNS 2017- Ishii, Tollefson, Basura et al 2017)
<b>Opportunity for Improvement</b>	Revision rates for Rhinoplasty are around 10% (Neaman et al 2013; Bagheri et al 2012), and that is thought to be an underestimate, as it does not generally

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	account for revisions performed by other surgeons. Having a discussion around motivations and setting realistic expectations helps to decrease that rate. The 2017 guideline is the first evidence-based guideline for Rhinoplasty and thus, studies of adherence have not yet been conducted. The expert clinicians on the Guideline Panel and on the Measures Work Group felt that this was an important area for improvement.
<b>Exception Justification</b>	N/A
<b>Harmonization with Existing Measures</b>	No existing measures for Rhinoplasty
<b>Measure Designation</b>	
<b>Measure Purpose</b>	<ul style="list-style-type: none"> <li>• Quality Improvement</li> <li>• Accountability</li> </ul>
<b>Type of Measure</b>	<ul style="list-style-type: none"> <li>• Process</li> </ul>
<b>are Setting</b>	<ul style="list-style-type: none"> <li>• Ambulatory Care</li> <li>• Inpatient</li> </ul>
<b>Data Source</b>	<ul style="list-style-type: none"> <li>• Administrative data</li> <li>• Medical record</li> <li>• Electronic health record system</li> <li>• Prospective data collection flowsheet</li> </ul>

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**Measure #2: Airway assessment for patients undergoing rhinoplasty**

This measure may be used as an Accountability measure.

**Measure Description**

Percentage of patients aged 15 years and older who had a rhinoplasty procedure for whom the nasal airway was assessed with physical examination via anterior rhinoscopy and/or speculum examination (lighted or not) and the status of the septum, turbinates, and valves was documented.

<b>Measure Components</b>	
<b>Numerator Statement</b>	Patients for whom nasal airway was assessed with physical examination via anterior rhinoscopy and/or speculum examination (lighted or not) and status of the septum, turbinates, and valves was documented.
<b>Denominator Statement</b>	All patients aged 15 years and older who had a rhinoplasty procedure
<b>Denominator Exceptions</b>	None
<b>Supporting Guideline</b>	STATEMENT 3: NASAL AIRWAY OBSTRUCTION: The surgeon, or the surgeon’s designee, should evaluate the rhinoplasty candidate for nasal airway obstruction during the preoperative assessment. <i>Recommendation based on observational studies, with a preponderance of benefit over harm.</i> (AAO HNS 2017- Ishii, Tollefson, Basura et al 2017)
<b>Measure Importance</b>	
<b>Relationship to desired outcome</b>	<p>The purpose of this measure is to evaluate clinician diligence regarding the preoperative evaluation of the rhinoplasty patient for nasal airway obstruction. Evaluation of both function and form is critical in the preoperative workup of the rhinoplasty patient. (AAO HNS 2017- Ishii, Tollefson, Basura et al 2017)</p> <p>Functional airway problems following rhinoplasty have been reported in the literature ranging from 15-68%. Airway obstruction is the most common reason for revision surgery following rhinoplasty (Affi, Kempton, Gordon et al 2015). Thus, emphasizing the pre-operative airway assessment should lead to better outcomes and in turn lower the revision rate.</p>
<b>Opportunity for Improvement</b>	A 2015 study reporting on a survey of the American Society of Plastic Surgeons’ members found that 30% of respondents felt they were not adequately trained in assessing and managing the airway during a rhinoplasty. 20% of respondents reported that they do not routinely perform an internasal exam with a focused light source during the pre-operative evaluation. The most frequent comment left by respondents was that “management of the airway is an underappreciated/underemphasized topic and further courses/publications on this topic are long overdue.” (Affi, Kempton, Gordon et al 2015) Thus, there is much opportunity to improve the practice of pre-operative airway assessment.

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<b>Exception Justification</b>	N/A
<b>Harmonization with Existing Measures</b>	No existing measures for Rhinoplasty
<b>Measure Designation</b>	
<b>Measure Purpose</b>	<ul style="list-style-type: none"><li>• Quality Improvement</li><li>• Accountability</li></ul>
<b>Type of Measure</b>	<ul style="list-style-type: none"><li>• Process</li></ul>
<b>Care Setting</b>	<ul style="list-style-type: none"><li>• Ambulatory Care</li><li>• Inpatient</li></ul>
<b>Data Source</b>	<ul style="list-style-type: none"><li>• Administrative data</li><li>• Medical record</li><li>• Electronic health record system</li><li>• Prospective data collection flowsheet</li></ul>

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**Measure #3: Shared-decision making for post-operative management of discomfort following rhinoplasty**

This measure may be used as an Accountability measure.

**Measure Description**

Percentage of patients aged 15 years and older who had a rhinoplasty procedure who had documentation of a pre-operative shared-decision making strategy for multi-modal post-operative management of discomfort.

Definitions: Documentation of discussion of at least two mechanisms of pain management from the following terms or phrases (one term or phrase from each list) will meet the measure:

Non-opioid analgesics: Non-narcotic/Non-opioid, Acetaminophen/Tylenol, Cox-II inhibitor (Celecoxib), Local/Marcaine/Block, Anxiolytic, Tramadol, NSAID/ibuprofen

Non-systemic: Ice/Cooling, Elevation, Rest, Mindfulness, Meditation

<b>Measure Components</b>	
<b>Numerator Statement</b>	<p>Patients who had documentation of a pre-operative shared-decision making strategy for multi-modal post-operative management of discomfort.</p> <p>Definitions: Documentation of discussion of at least two mechanisms of pain management from the following terms or phrases (one term or phrase from each list) will meet the measure:</p> <p>Non-opioid analgesics: Non-narcotic/Non-opioid, Acetaminophen/Tylenol, Cox-II inhibitor (Celecoxib), Local/Marcaine/Block, Anxiolytic, Tramadol, NSAID/ibuprofen</p> <p>Non-systemic: Ice/Cooling, Elevation, Rest, Mindfulness, Meditation</p>
<b>Denominator Statement</b>	All patients aged 15 years and older who had a rhinoplasty procedure
<b>Denominator Exceptions</b>	Patient reasons for not taking a non-opioid analgesic
<b>Supporting Guideline</b>	STATEMENT 6: MANAGING PAIN AND DISCOMFORT: The surgeon, or the surgeon’s designee, should educate rhinoplasty patients before surgery about strategies to manage discomfort after surgery. <i>Recommendation based on studies of the value of education and counseling, with a preponderance of benefit over harm.</i> (AAO HNS 2017- Ishii, Tollefson, Basura et al 2017)
<b>Measure Importance</b>	
<b>Relationship to desired outcome</b>	Strategies for minimizing pain are thought to improve patient satisfaction with the procedure. Implementing adjunctive measures to improve pain and

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	<p>expectations will help the clinician better encourage patient engagement in the recovery process, thereby improving the surgical result. Evidence for long-term improved patient satisfaction with the outcome of the rhinoplasty as it relates to the acute management of pain and discomfort is not available and is an area that requires investigation. (AAO HNS 2017- Ishii, Tollefson, Basura et al 2017)</p>
<b>Opportunity for Improvement</b>	<p>173 rhinoplasty cases performed at Mass. Eye and Ear over a one-year period were reviewed. Of the 173 patients, 168 were prescribed opioids in addition to acetaminophen, at an average of 28 pills per patient. Refills were found to be extremely rare, with only two patients refilling, and with some patients (11.3 percent) not filling their initial opioid prescription at all. The team confirmed the refill rate by querying the Massachusetts State Registry (Sethi et al 2018).</p> <p>Patel et al (2018) found that patients were typically prescribed 20-30 hydrocodone-acetaminophen combination tablets, but on average, only consumed 8.7 tablets.</p> <p>These findings suggest that physicians are over-prescribing opioids for rhinoplasty. A reduction in narcotic prescriptions after rhinoplasty may limit the opportunity for opioid abuse.</p> <p>The 2017 guideline is the first evidence-based guideline for Rhinoplasty and thus, studies of adherence have not yet been conducted. Anecdotally, both the expert clinicians on the Guideline Panel and on the Measures Work Group felt that this was an important area for improvement.</p>
<b>Exception Justification</b>	N/A
<b>Harmonization with Existing Measures</b>	No existing measures for Rhinoplasty
<b>Measure Designation</b>	
<b>Measure Purpose</b>	<ul style="list-style-type: none"> <li>• Quality Improvement</li> <li>• Accountability</li> </ul>
<b>Type of Measure</b>	<ul style="list-style-type: none"> <li>• Process</li> </ul>
<b>Care Setting</b>	<ul style="list-style-type: none"> <li>• Ambulatory Care</li> <li>• Inpatient</li> </ul>
<b>Data Source</b>	<ul style="list-style-type: none"> <li>• Administrative data</li> <li>• Medical record</li> <li>• Electronic health record system</li> <li>• Prospective data collection flowsheet</li> </ul>

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**Measure #4: Patient satisfaction with rhinoplasty procedure**

This measure may be used as an Accountability measure.

**Measure Description**

Percentage of patients aged 15 years and older who had a rhinoplasty procedure who demonstrated improvement\* in functional and/or aesthetic satisfaction using a validated patient satisfaction tool (such as SCHNOS, NOSE, SNOT, RHINO) within a year following their procedure.

\*pre-test and post-test scores must be documented in the patient record

<b>Measure Components</b>	
<b>Numerator Statement</b>	<p>Patients who demonstrated improvement* in functional and/or aesthetic satisfaction using a validated patient satisfaction tool (such as SCHNOS, NOSE, SNOT, RHINO) within a year following their procedure.</p> <p>*pre-test and post-test scores must be documented in the patient record</p>
<b>Denominator Statement</b>	All patients aged 15 years and older who had a rhinoplasty procedure
<b>Denominator Exceptions</b>	None
<b>Supporting Guideline</b>	STATEMENT 10: OUTCOME ASSESSMENT: Clinicians should document patient satisfaction with their nasal appearance and with their nasal function at a minimum of 12 months after rhinoplasty. <i>Recommendation based on observational studies, with a preponderance of benefit over harm.</i> (AAO HNS 2017- Ishii, Tollefson, Basura et al 2017)
<b>Measure Importance</b>	
<b>Relationship to desired outcome</b>	<p>The purpose of this measure is to encourage clinicians to assess and document outcome measurements of patient satisfaction after rhinoplasty surgery in a systematic manner. The assessment of patient-reported outcome measures complements the standard postoperative evaluation, such as physical examination and photography. The clinician should assess satisfaction with nasal appearance and with nasal function, which may require ≥1 outcome measurement tools.</p> <p>Validated patient-reported outcome instruments or other tools standardized to the practice can help clinicians with data-driven postoperative communication concerning reasonably expected outcomes. Throughout the healing period (thought to last up to ≥1 year after rhinoplasty surgery), patient satisfaction should be routinely assessed. The content experts in the Guideline Development Group (GDG) felt that 12 months was the minimal acceptable time for a reasonable stable assessment of nasal appearance. However, research publications frequently report postoperative assessments of patient satisfaction with nasal appearance and function at time points far less than 6 months. While earlier assessment and documentation may be</p>



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	useful for counseling, the final assessment should be done ideally at 12 months or later. (AAO HNS 2017- Ishii, Tollefson, Basura et al 2017)
<b>Opportunity for Improvement</b>	There currently are no data measuring whether physicians routinely administer PROM tools. However, data on use of PROMs overall generally show low uptake. We believe this measure will be important in moving this practice forward.
<b>Exception Justification</b>	N/A
<b>Harmonization with Existing Measures</b>	No existing measures for Rhinoplasty
<b>Measure Designation</b>	
<b>Measure Purpose</b>	<ul style="list-style-type: none"> <li>• Quality Improvement</li> <li>• Accountability</li> </ul>
<b>Type of Measure</b>	<ul style="list-style-type: none"> <li>• Outcome</li> </ul>
<b>Care Setting</b>	<ul style="list-style-type: none"> <li>• Ambulatory Care</li> <li>• Inpatient</li> </ul>
<b>Data Source</b>	<ul style="list-style-type: none"> <li>• Administrative data</li> <li>• Medical record</li> <li>• Electronic health record system</li> <li>• Prospective data collection flowsheet</li> </ul>

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**Guideline Evidence Classification and Rating Schemes**

S8

Otolaryngology–Head and Neck Surgery 156(2S)

**Table 3. Aggregate Grades of Evidence by Question Type.<sup>3</sup>**

Grade	CEBM Level	Treatment	Harm	Diagnosis	Prognosis
A	1	Systematic review <sup>b</sup> of randomized trials	Systematic review <sup>b</sup> of randomized trials, nested case-control studies, or observational studies with dramatic effect	Systematic review <sup>b</sup> of cross-sectional studies with consistently applied reference standard and blinding	Systematic review <sup>b</sup> of inception cohort studies <sup>c</sup>
B	2	Randomized trials or observational studies with dramatic effects or highly consistent evidence	Randomized trials or observational studies with dramatic effects or highly consistent evidence	Cross-sectional studies with consistently applied reference standard and blinding	Inception cohort studies <sup>c</sup>
C	3-4	Nonrandomized or historically controlled studies, including case-control and observational studies	Nonrandomized controlled cohort or follow-up study (postmarketing surveillance) with sufficient numbers to rule out a common harm. case series, case-control, or historically controlled studies	Nonconsecutive studies; case-control studies; or studies with poor, nonindependent, or inconsistently applied reference standards	Cohort study; control arm of a randomized trial; case series or case-control study; poor-quality prognostic cohort study
D	5	Case reports, mechanism-based reasoning, or reasoning from first principles			
X	N/A	Exceptional situations where validating studies cannot be performed and there is a clear preponderance of benefit over harm.			

Abbreviations: CEBM, Oxford Centre for Evidence-Based Medicine; N/A, not applicable.

<sup>3</sup>Adapted from Howick and coworkers.<sup>39</sup>

<sup>b</sup>A systematic review may be downgraded to level B because of study limitations, heterogeneity, or imprecision.

<sup>c</sup>A group of individuals identified for subsequent study at an early uniform point in the course of the specified health condition or before the condition develops.

**Table 4. Guideline Definitions for Evidence-Based Statements.**

Statement	Definition	Implication
Strong recommendation	A strong recommendation means that the benefits of the recommended approach clearly exceed the harms (or that the harms clearly exceed the benefits, in the case of a strong negative recommendation) and that the quality of the supporting evidence is excellent (grade A or B). <sup>3</sup> In some clearly identified circumstances, strong recommendations may be made on the basis of lesser evidence, when high-quality evidence is impossible to obtain and the anticipated benefits strongly outweigh the harms.	Clinicians should follow a strong recommendation unless a clear and compelling rationale for an alternative approach is present.
Recommendation	A recommendation means that the benefits exceed the harms (or that the harms exceed the benefits, in the case of a negative recommendation) but that the quality of evidence is not as strong (grade B or C). <sup>3</sup> In some clearly identified circumstances, recommendations may be based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits outweigh the harms.	Clinicians should also generally follow a recommendation but should remain alert to new information and sensitive to patient preferences.
Option	An option means either that the quality of evidence that exists is suspect (grade D) <sup>3</sup> or that well-done studies (grade A, B, or C) <sup>3</sup> show little clear advantage to one approach versus another.	Clinicians should be flexible in their decision making regarding appropriate practice, although they may set bounds on alternatives. Patient preference should have a substantial influencing role.

<sup>3</sup>American Academy of Pediatrics classification scheme.<sup>40</sup>

## Specifications for Registry Reporting

### References

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**APPENDIX A**  
**Rhinoplasty**  
**Measurement Specifications**

**Coding Updated August, 2018**

Specifications for Registry Reporting

**Measure 1: Pre-surgical discussion of motivations and outcomes for patients undergoing Rhinoplasty**

<b>Denominator (Eligible Population)</b>	All patients aged 15 years and older who had a rhinoplasty procedure	
	Age ≥ 15 years	
	AND	
	<b>CPT® for Encounter:</b>	
	30400, 30410, 30420, 30430, 30435, 30450, 30460, 30462, or 30465	
	30400	Rhinoplasty, primary; lateral and alar cartilages and/or elevation of nasal tip
	30410	Rhinoplasty, primary; complete, external parts including bony pyramid, lateral and alar cartilages, and/or elevation of nasal tip
	30420	Rhinoplasty, primary; including major septal repair
	30430	Rhinoplasty, secondary; minor revision (small amount of nasal tip work)
	30435	Rhinoplasty, secondary; intermediate revision (bony work with osteotomies)
30450	Rhinoplasty, secondary; major revision (nasal tip work and osteotomies)	
30460	Rhinoplasty for nasal deformity secondary to congenital cleft lip and/or palate, including columnar lengthening; tip only	
30462	Rhinoplasty for nasal deformity secondary to congenital cleft lip and/or palate, including columnar lengthening; tip, septum, osteotomies Repair of Vestibular Stenosis	
30465	Repair of nasal vestibular stenosis (e.g., spreader grafting, lateral nasal wall reconstruction)	
<b>Denominator Exclusions</b>	n/a	

**Specifications for Registry Reporting**

<p><b>Numerator</b></p>	<p>Patients with whom motivation for surgery and outcome expectations were discussed and for whom the following information was documented:</p> <ol style="list-style-type: none"> <li>1. Discussion of motivations and expectations</li> <li>2. Surgical goals were realistic and exclusion criteria were reviewed</li> </ol> <p>Definitions: *Documentation of any of words motivation, expectation, realistic, or unrealistic AND one of the following terms or phrases will meet the measure:</p> <p>Independent /Preference/Desire/Look like/Appearance</p> <p>Size</p> <p>Big(ger), small(er)</p> <p>Shape</p> <p>Straight, crooked, bent, hook, hump, bump, droop, flare, wide, thin, narrow, bulbous, pug, pointy, projection, rotation, flare, round, long(er), short(er)</p> <p style="padding-left: 40px;">Proportion/Balance</p> <p>Tip, bridge, overly-prominent nostrils/nostril asymmetry, change of appearance with smiling (pulling or widening), general asymmetry</p> <p>External shaming/Ridicule/Bullying/Advice/Critical/Tease(ing)</p> <p>Self-esteem/Self-conscious</p> <p>Facial Harmony/ gender characteristics/ ethnicity</p> <p>Function</p> <p style="padding-left: 40px;">Breathe/Breathing</p> <p>Repair injury</p> <p>Snoring</p> <p>Olfaction</p> <p>Recurrent infection</p> <p>Altered sensation,</p> <p>Voice change</p> <p>Captured by attestation in the work flow of the ASPS QCDR</p>
<p><b>Denominator Exceptions</b></p>	<p>n/a</p>

Specifications for Registry Reporting

Measure #2: Airway Assessment for patients undergoing Rhinoplasty

<b>Denominator (Eligible Population)</b>	All patients aged 15 years and older who had a rhinoplasty procedure	
	Age ≥ 15 years	
	AND	
	<b>CPT® for Encounter:</b>	
	30400, 30410, 30420, 30430, 30435, 30450, 30460, 30462, or 30465	
	30400	Rhinoplasty, primary; lateral and alar cartilages and/or elevation of nasal tip
	30410	Rhinoplasty, primary; complete, external parts including bony pyramid, lateral and alar cartilages, and/or elevation of nasal tip
	30420	Rhinoplasty, primary; including major septal repair
	30430	Rhinoplasty, secondary; minor revision (small amount of nasal tip work)
	30435	Rhinoplasty, secondary; intermediate revision (bony work with osteotomies)
30450	Rhinoplasty, secondary; major revision (nasal tip work and osteotomies)	
30460	Rhinoplasty for nasal deformity secondary to congenital cleft lip and/or palate, including columnar lengthening; tip only	
30462	Rhinoplasty for nasal deformity secondary to congenital cleft lip and/or palate, including columnar lengthening; tip, septum, osteotomies Repair of Vestibular Stenosis	
30465	Repair of nasal vestibular stenosis (e.g., spreader grafting, lateral nasal wall reconstruction)	
<b>Denominator Exclusions</b>	n/a	
<b>Numerator</b>	<p>Patients for whom nasal airway was assessed with physical examination via anterior rhinoscopy and/or speculum examination (lighted or not) and status of the septum, turbinates, and valves was documented.</p> <p>Captured by attestation in the work flow of the ASPS QCDR</p>	
<b>Denominator Exceptions</b>	n/a	

Specifications for Registry Reporting

Measure #3: Shared-decision making for post-operative management of discomfort following

<b>Denominator (Eligible Population)</b>	All patients aged 15 years and older who had a rhinoplasty procedure	
	Age ≥ 15 years	
	AND	
	<b>CPT® for Encounter:</b>	
	30400, 30410, 30420, 30430, 30435, 30450, 30460, 30462, or 30465	
	30400	Rhinoplasty, primary; lateral and alar cartilages and/or elevation of nasal tip
	30410	Rhinoplasty, primary; complete, external parts including bony pyramid, lateral and alar cartilages, and/or elevation of nasal tip
	30420	Rhinoplasty, primary; including major septal repair
	30430	Rhinoplasty, secondary; minor revision (small amount of nasal tip work)
	30435	Rhinoplasty, secondary; intermediate revision (bony work with osteotomies)
30450	Rhinoplasty, secondary; major revision (nasal tip work and osteotomies)	
30460	Rhinoplasty for nasal deformity secondary to congenital cleft lip and/or palate, including columnar lengthening; tip only	
30462	Rhinoplasty for nasal deformity secondary to congenital cleft lip and/or palate, including columnar lengthening; tip, septum, osteotomies Repair of Vestibular Stenosis	
30465	Repair of nasal vestibular stenosis (e.g., spreader grafting, lateral nasal wall reconstruction)	
<b>Denominator Exclusions</b>	n/a	
<b>Numerator</b>	<p>Patients who had documentation of a pre-operative shared-decision making strategy for multi-modal post-operative management of discomfort.</p> <p>Definitions: Documentation of discussion of at least two mechanisms of pain management from the following terms or phrases (one term or phrase from each list) will meet the measure:</p> <p>Non-opioid analgesics: Non-narcotic/Non-opioid, Acetaminophen/Tylenol, Cox-II inhibitor (Celecoxib), Local/Maraine/Block, Anxiolytic, Tramadol, NSAID/ibuprofen</p> <p>Non-systemic: Ice/Cooling, Elevation, Rest, Mindfulness, Meditation</p> <p>Captured by attestation in the work flow of the ASPS QCDR</p>	



## Specifications for Registry Reporting

<b>Denominator Exceptions</b>	Patient reasons for not taking a non-opioid analgesic
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Specifications for Registry Reporting

Measure #4: Patient Satisfaction with Rhinoplasty Procedure

<b>Denominator (Eligible Population)</b>	All patients aged 15 years and older who had a rhinoplasty procedure	
	Age ≥ 15 years	
	AND	
	<b>CPT® for Encounter:</b>	
	30400, 30410, 30420, 30430, 30435, 30450, 30460, 30462, or 30465	
	30400	Rhinoplasty, primary; lateral and alar cartilages and/or elevation of nasal tip
	30410	Rhinoplasty, primary; complete, external parts including bony pyramid, lateral and alar cartilages, and/or elevation of nasal tip
	30420	Rhinoplasty, primary; including major septal repair
	30430	Rhinoplasty, secondary; minor revision (small amount of nasal tip work)
	30435	Rhinoplasty, secondary; intermediate revision (bony work with osteotomies)
30450	Rhinoplasty, secondary; major revision (nasal tip work and osteotomies)	
30460	Rhinoplasty for nasal deformity secondary to congenital cleft lip and/or palate, including columnar lengthening; tip only	
30462	Rhinoplasty for nasal deformity secondary to congenital cleft lip and/or palate, including columnar lengthening; tip, septum, osteotomies Repair of Vestibular Stenosis	
30465	Repair of nasal vestibular stenosis (e.g., spreader grafting, lateral nasal wall reconstruction)	
<b>Denominator Exclusions</b>	n/a	
<b>Numerator</b>	<p>Patients who demonstrated improvement* in functional and/or aesthetic satisfaction using a validated patient satisfaction tool (such as SCHNOS, NOSE, SNOT, RHINO) within a year following their procedure.</p> <p>*pre-test and post-test scores must be documented in the patient record</p> <p>Captured by attestation in the work flow of the ASPS QCDR</p>	
<b>Denominator Exceptions</b>	n/a	