

AQI66 Obstructive Sleep Apnea: Mitigation Strategies

Percentage of patients aged 18 years or older, who undergo an elective procedure requiring anesthesia services who are screened for obstructive sleep apnea (OSA) AND, if positive, for whom two or more selected mitigation strategies was used prior to post-anesthesia care unit (PACU) discharge

2019 OPTIONS FOR INDIVIDUAL MEASURES:

SCG Health, Anesthesia Quality Institute

NATIONAL QUALITY STRATEGY DOMAIN: Patient Safety

MEASURE TYPE: Process

HIGH PRIORITY STATUS: High Priority

SPECIALTY RECOMMENDATION: Anesthesia Care

MEANINGFUL MEASURE AREA: Preventable Healthcare Harm

NQF NUMBER: Not applicable

PERFORMANCE NOTES: Traditional (not inverse), single (1) proportional performance calculation

RISK ADJUSTMENT: No

INSTRUCTIONS:

This measure is to be reported **each time a patient undergoes an elective procedure** under anesthesia during the reporting period. This measure may be reported by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

DENOMINATOR:

All patients aged 18 years or older, who undergo an elective procedure requiring anesthesia services

Denominator criteria (Eligible Cases):

Patients aged ≥ 18 years on date of encounter

AND

Patient encounter during the reporting 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, 00350, 00352, 00400, 00402, 00404, 00406, 00410, 00450, 00454, 00470, 00472, 00474, 00500, 00520, 00522, 00524, 00528, 00529, 00530, 00532, 00534, 00537, 00539, 00540, 00541, 00542, 00546, 00548, 00550, 00560, 00562, 00563, 00566, 00567, 00580, 00600, 00604, 00620, 00625, 00626, 00630, 00632, 00635, 00640, 00670, 00700, 00702, 00730, 00731, 00732, 00750, 00752, 00754, 00756, 00770, 00790, 00792, 00794, 00796, 00797, 00800, 00802, 00811, 00812, 00813, 00820, 00830, 00832, 00840, 00842, 00844, 00846, 00848, 00851, 00860, 00862, 00864, 00865, 00866, 00868, 00870, 00872, 00873, 00880, 00882, 00902, 00904, 00906, 00908, 00910, 00912, 00914, 00916, 00918, 00920, 00921, 00922, 00924, 00926, 00928, 00930, 00932, 00934, 00936, 00938, 00940, 00942, 00944, 00948, 00950, 00952, 01112, 01120, 01130, 01140, 01150, 01160, 01170, 01173, 01200, 01202, 01210, 01212, 01214, 01215, 01220, 01230, 01232, 01234, 01250, 01260, 01270, 01272, 01274, 01320, 01340, 01360, 01380, 01382, 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, 01620, 01622, 01630, 01634, 01636, 01638, 01650, 01652, 01654, 01656, 01670, 01680, 01710, 01712, 01714, 01716, 01730, 01732, 01740, 01742, 01744, 01756, 01758, 01760, 01770, 01772, 01780, 01782, 01810, 01820, 01829, 01830, 01832, 01840, 01842, 01844, 01850, 01852, 01860, 01916,

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01920, 01922, 01924, 01925, 01926, 01930, 01931, 01932, 01933, 01935, 01936, 01951, 01952, 01953, 01958, 01960, 01961, 01962, 01963, 01965, 01966, 01967, 01968, 01969, 01991, 01992

Denominator Note: For the purposes of this measure, anesthesia services only include cases using general anesthesia, neuraxial anesthesia and monitored anesthesia care (MAC)

NUMERATOR:

Patients who are screened for OSA AND, if positive, have documentation that two or more mitigation strategies were used prior to PACU discharge

Definitions:

Mitigation strategies – The key elements that must be evaluated and documented in the OSA positive patient’s medical record may include, but are not limited to the assessment of

- Preoperative initiation of continuous positive airway pressure (CPAP) or non-invasive positive pressure ventilation (NIPPV)
- Preoperative use of mandibular advancement devices or oral appliances
- Intraoperative administration of CPAP, nasopharyngeal airway, or oral appliance during sedation
- Use of major conduction anesthesia (spinal/epidural) or peripheral nerve block
- Multimodal analgesia
- Extubation while patient is awake
- Verification of full reversal of neuromuscular block
- Extubation and recovery carried out in lateral, semiupright, or other nonsupine position
- Postoperative administration of CPAP, nasopharyngeal airway, or oral appliance in the PACU

Diagnosis for sleep apnea (ICD-10-CM): G47.30, G47.33

Numerator Instructions: All components should be completed once per procedure episode per patient and should be documented in the medical record as having been performed during the measurement period.

Numerator Options when two or more mitigation strategies performed:

Performance Met: Preoperative screening for OSA completed, documented in the medical record as positive; mitigation strategy of preoperative CPAP or NIPPV was used prior to PACU discharge

AND/OR

Performance Met: Preoperative screening for OSA completed, documented in the medical record as positive; mitigation strategy of preoperative mandibular advancement devices or oral appliances was used prior to PACU discharge

AND/OR

Performance Met: Preoperative screening for OSA completed, documented in the medical record as positive; mitigation strategy of intraoperative CPAP, nasopharyngeal airway, or oral appliance during sedation was used prior to PACU discharge

AND/OR

Performance Met: Preoperative screening for OSA completed, documented in the medical record as positive; mitigation strategy of major conduction anesthesia (spinal/epidural) or peripheral nerve block was used prior to PACU discharge

AND/OR

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Performance Met:	Preoperative screening for OSA completed, documented in the medical record as positive; mitigation strategy of multimodal analgesia was used prior to PACU discharge
<u>AND/OR</u>	
Performance Met:	Preoperative screening for OSA completed, documented in the medical record as positive; mitigation strategy of extubation while patient is awake was used prior to PACU discharge
<u>AND/OR</u>	
Performance Met:	Preoperative screening for OSA completed, documented in the medical record as positive; mitigation strategy of verification of full reversal of neuromuscular block was used prior to PACU discharge
<u>AND/OR</u>	
Performance Met:	Preoperative screening for OSA completed, documented in the medical record as positive; mitigation strategy of extubation and recovery carried out in lateral, semiupright, or other nonsupine position was used prior to PACU discharge
<u>AND/OR</u>	
Performance Met:	Preoperative screening for OSA completed, documented in the medical record as positive; mitigation strategy of postoperative administration of CPAP, nasopharyngeal airway, or oral appliance in the PACU was used prior to PACU discharge
<u>OR</u>	
Performance Met:	Preoperative screening for OSA completed, documented in the medical record as negative
<u>OR</u>	
Performance Not Met:	Preoperative screening for OSA not completed, reason not otherwise specified
<u>OR</u>	
Performance Not Met:	Preoperative screening for OSA completed AND only one mitigation strategy was used
<u>OR</u>	
Performance Not Met:	Preoperative screening for OSA completed AND no mitigation strategies were used

RATIONALE:

ASA/AQI will begin collecting data on this measure in 2019. This measure is an expansion of AQI 51: Assessment of Patients for Obstructive Sleep Apnea, which, in a preliminary sample of available 2018 QCDR performance data including 526 clinicians, demonstrated a mean performance rate of 67.4% with performance ranging from 43.67% to 100%. Given these results, we anticipate adding another step beyond the assessment will demonstrate an even wider gap. Literature shows that obstructive sleep apnea (OSA) affects anywhere between 9-26% of the general population, with increased rates in older adults and 90% of OSA remains undiagnosed. Undiagnosed OSA can increase the risk of postoperative complications and death after surgery. As screening for OSA improves, it is important for the results to be used to customize anesthesia care to the patient's individual needs.

CLINICAL RECOMMENDATION STATEMENTS:

2014 ASA Guidelines on Perioperative Management of Patients with Obstructive Sleep Apnea
 “Preoperative initiation of CPAP should be considered, particularly if OSA is severe.

- For patients who do not respond adequately to CPAP, NIPPV should be considered.

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The preoperative use of mandibular advancement devices or oral appliances and preoperative weight loss should be considered when feasible.”

“For superficial procedures, consider the use of local anesthesia or peripheral nerve blocks, with or without moderate sedation.

If moderate sedation is used, ventilation should be continuously monitored by capnography or another automated method if feasible because of the increased risk of undetected airway obstruction in these patients.

Consider administering CPCP or using an oral appliance during sedation to patients previously treated with these modalities.”

“Major conduction anesthesia (spinal/epidural) should be considered for peripheral procedures. Unless there is a medical or surgical contraindication, patients at increased perioperative risk from OSA should be extubated while awake.

Full reversal of neuromuscular block should be verified before extubation. When possible, extubation and recovery should be carried out in the lateral, semiupright, or other nonsupine position.”

WORKS CITED:

Chung, F. et al, 2016. “Society of Anesthesia and Sleep Medicine guidelines on preoperative screening and assessment of adult patients with obstructive sleep apnea.” *Anesth Analg*, 123 (2): 452-473.

Finkel KJ, Searleman AC, Tymkew H, et al. 2009. Prevalence of undiagnosed obstructive sleep apnea among adult surgical patients in an academic medical center. *Sleep Med*;10:753-8.

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