

Improve Patient Outcomes with the New Intraoperative Hypotension Quality Measure

Approved by the Centers for Medicare & Medicaid Services (CMS) as a Qualified Clinical Data Registry (QCDR) measure within the MIPS Value Pathway (MVP) reporting program, the Intraoperative Hypotension (IOH) quality measure supports an increasing desire for objective quality measurement and reporting.



1000+

providers reporting
to the IOH measure

This IOH Measure encourages qualified anesthesia providers to maintain an intraoperative mean arterial pressure (MAP) above 65 mmHg in order to reduce the risk of adverse outcomes such as acute kidney injury and myocardial injury.

ePreop is co-stewarding the IOH Measure with the Cleveland Clinic to promote awareness around non-emergent noncardiac cases in which a patient's MAP falls below 65 mmHG for a cumulative total of 15 minutes or more.

Studies Have Shown Strong Associates Between Intraoperative Hypotension (IOH) and Acute Kidney and Myocardial Injury

Intraoperative Hypotension is a common issue among adult noncardiac surgery patients; an estimated 31.3% have experienced a MAP below 65 mmHg for 10 minutes or longer.¹ Studies have shown a strong association between IOH and increased risk of acute kidney injury and myocardial injury — the latter being a common cause of postoperative mortality within 30 days after surgery.²⁻⁴ A recent government report on adverse events in hospitals found that hypotension was the most common harm event related to surgeries and procedures.⁵ Noncardiac surgery patients are at increased risk of AKI and myocardial injury when their cumulative time below a MAP of 65 mmHg reaches or exceeds 13 minutes. When patients fall further below this threshold, even shorter durations are associated with increased odds.²



200k+

cases reported to
the IOH measure

1. Bijker, J., van Klei, W., Kappen, T., van Wolfswinkel, L., Moons, K., Kalkman, C. (2007). Incidence of Intraoperative Hypotension as a Function of the Chosen Definition. *Anesthesiology*, 107(2), 213-220.
2. Salmasi, V., Maheshwari, K., Yang, G., Mascha, E.J., Singh, A., Sessler, D.I., & Kurz, A. (2017). Relationship between intraoperative hypotension, defined by either reduction from baseline or absolute thresholds, and acute kidney injury and myocardial injury. *Anesthesiology*, 126(1), 47-65.
3. Sun, L.Y., Wijeyesundera, D.N., Tait, G.A., & Beattie, W.S. (2015). Association of Intraoperative Hypotension with Acute Kidney Injury after Elective Noncardiac Surgery. *Anesthesiology*, 123(3), 515-523.
4. Walsh, M., Devereaux, P.J., Garg, A.X., Kurz, A., Turan, A., Rodseth, R.N., Cywinski, J., Thabane, L., & Sessler, D.I. (2013). Relationship between Intraoperative Mean Arterial Pressure and Clinical Outcomes after Noncardiac Surgery. *Anesthesiology*, 119(3), 507-515.
5. U.S. Department of Health and Human Services Office of Inspector General. Adverse Events in Hospitals: A quarter of Medicare Patient Experienced Harm in October 2018. (2022).

Implement the Intraoperative Hypotension (IOH) Measure in Your Quality Improvement Activities

Measure participation goals include: (1) improving patient outcomes, (2) facilitating MIPS Value Pathway (MVP) participation with decreased provider burden, (3) supporting quality improvement initiatives and (4) putting providers at the forefront of objective quality improvement programs.

Providers meeting the technical requirements can activate the IOH Measure at no additional cost.

PROVIDER BENEFITS

- Improve patient safety and care
- Measure adverse outcomes and effect on cost of care
- Inform predictive models of care and risk stratification
- Reduce provider documentation burden — Provation manages data collection, analysis, score calculations and submission



Findings on IOH in community practice

Northstar Anesthesia and US Anesthesia Partners collaborated to assess the incidence and variation of IOH at 45 facilities in non-emergent noncardiac cases from 2020 and 2021. Using the definition of hypotension from the IOH quality measure, 29% of patients undergoing non-emergent noncardiac surgeries in community anesthesia practices experienced intraoperative hypotension (MAP <65mmHg) for at least 15 minutes, cumulatively. Variation in incidence of intraoperative hypotension across clinicians at community anesthesia practices suggests that IOH is a modifiable risk worth pursuing in quality improvement initiatives.⁶

6. Saasouh W, Christensen AL, Xing F, Chappell D, Lumbley J, Woods B, Mythen M, Dutton RP. Incidence of intraoperative hypotension during non-cardiac surgery in community anesthesia practice: a retrospective observational analysis. *Periop Med.* 2023;12:29.



**Join the 1,000+ providers already
participating in the IOH measure today!**



Visit provationmedical.com/ioh
to learn more about the Intraoperative Hypotension (IOH) Measure

