



Measure Abbreviation: BP 01

Data Collection Method: This measure is calculated based on data extracted from the electronic medical record combined with administrative data sources such as professional fee and discharge diagnoses data. This measure is explicitly not based on provider self-attestation.

Measure Description: Percentage of cases where intraoperative hypotension (MAP < 55 mmHg) was sustained for less than 20 minutes.

NQS Domain: Patient Safety

Measure Type: Process

Measure Summary: BP 01 measures the cumulative time of Mean Arterial Pressure (MAP) <55mmHG for a given case and provider. BP 01 includes non-invasive and invasive blood pressure monitoring captured using automated and manually entered physiologic data.

Inclusions:

All patients requiring general anesthesia or monitored anesthesia care (MAC).

Exclusions:

- Patients <18 years old
- ASA 5 and 6 cases
- Baseline MAP <60 mmHG
- Daily Hospital Management for Epidural (CPT: 01996)
- Obstetric Non-Operative Procedures (CPT: 01958, 01960, 01967)
- Obstetric Non-Operative Procedure Rooms (Rooms tagged as OB-GYN – Labor and Delivery)
- Obstetric Non-Operative Procedures with procedure text: “Labor Epidural”
- Organ Harvest (CPT:01990)
- Cardiac surgery with pump and <1 year old (CPT: 00561)
- Cardiac surgery with pump and > 1 year old (CPT: 00562)
- Cardiac surgery with hypothermic arrest (CPT: 00563)
- CABG with pump (CPT: 00567)
- CABG without pump (CPT: 00566)
- Heart Transplant (CPT: 00580)
- Liver Transplant Surgery (CPT: 00796, 47135)
- Lung Transplant Surgery (CPT: 32851, 32852, 32853, 32855)
- Unlisted Anesthesia Procedures (CPT: 01999)

Success:

- MAP <55mmHG that does not exceed cumulative time of 20 minutes **OR**
- MAP >55mmHG throughout case length.

Threshold: 90%.

Responsible Provider: All providers for a given case whose individual cumulative MAP < 55mmHG exceeds the 20 minute timeframe.

Risk Adjustment (for outcome measures):

Not applicable.

References:

Bijker JB, Persoon S, Peelen LM, Moons KG, Kalkman CJ, Kappelle LJ, van Klei WA. Intraoperative hypotension and perioperative ischemic stroke after general surgery: a nested case-control study. *Anesthesiology*. 2012 Mar 116(3): 658-64. doi: 10.1097/ALN.0b013e3182472320. PMID: 22277949

Bijker JB, van Klei WA, Vergouwe Y, Eleveld DJ, van Wolfswinkel L, Moons KG, Kalkman CJ. Intraoperative hypotension and 1-year mortality after noncardiac surgery. *Anesthesiology*. 2009 Dec 111(6): 1217-26. doi: 10.1097/ALN.0b013e3181c14930. PMID: 19934864

Sun LY, Wijeyesundera DN, Tait GA, Beattie WS. Association of Intraoperative Hypotension with Acute Kidney Injury after Elective Noncardiac Surgery *Anesthesiology*. 2015 Sep123(3): 515-23. doi: 10.1097/ALN.0000000000000765. PMID: 26181335

Walsh M, Devereaux PJ, Garg AX, Kurz A, Turan A, Rodseth RN et al. Relationship between intraoperative mean arterial pressure and clinical outcomes after noncardiac surgery: Toward an empirical definition of hypotension. *Anesthesiology* 2013; 119:507-515. Doi: 10.1097/ALN.0b013e318a10e26. PMID: 23835589.