

Proposed QI Reports v2014

The QI reports are divided into three major domains:

- Process of care
 - Externally established metrics (SCIP, etc)
 - Internally developed
- Clinical outcome
- Exploratory

Due to the relative lack of NQF-endorsed perioperative measures applicable to the anesthesiology provider, many QI reports are based upon commonly accepted clinical practices developed by the MPOG member institution representatives. There are two basic dashboards made available: departmental and provider. The departmental dashboard is exposed to departmental or institution leadership and enabled *cross-center* comparison with drill-down into individual (anonymized) providers. The provider dashboard is designed for each individual clinician to review their own performance *within* centers. Reports can be filtered by primary surgical procedure or primary ICD9 procedure code. For all current measures, ASA 5 or 6 patients are excluded, as are procedures with < 45 minutes of anesthesia time (start to end). Currently, all measures are designed for use with adult patient populations only.

Process of care -- SCIP

- SCIP-INF1 – Timing of prophylactic antibiotics
- SCIP-INF10 – Perioperative normothermia and warming
- SCIP-CARD2 – Continuation of beta-blockade in patients with chronic beta blockade therapy

Process of care -- Internally developed

- Intraoperative neuromuscular blockade monitoring and treatment
 - Exclusions
 - Patients arriving to operating room intubated or transported directly to ICU
 - Measures
 - Proportion of patients receiving a non-depolarizing neuromuscular blockade medication with documentation of neuromuscular function recovery (TOF twitches)
 - Proportion of patients receiving a non-depolarizing neuromuscular blockade medication with administration of neostigmine if time from last administration to extubation is < 4 half-lives (specific to drug administered)
 - Threshold
 - 95%
- Monitoring vigilance
 - Exclusions
 - Emergency patients
 - Measures
 - Proportion of patients without a 10 minute gap in systolic or mean arterial pressure between patient in room and patient out of room

- Threshold
 - 95%
- Discretionary transfusion management
 - Exclusions
 - Patients with ≥ 4 units of intraoperative PRBC transfused
 - EBL ≥ 2000 ML
 - Outpatient surgery
 - Measures
 - Patients receiving PRBC at all
 - Patients receiving PRBC at all with a measured and documented hematocrit or hemoglobin within 60 minutes
 - Patients receiving PRBC with a first post anesthesia end (within 6 hours) hematocrit > 32.0
 - Intraoperative hematocrit or hemoglobin nadir
 - Thresholds
 - In development
- Glucose management
 - Exclusions
 - Pancreatic transplants
 - Measures
 - Patients with perioperative glucose > 250 (between anesthesia start-2 hours and anesthesia end + 2 hours) with an insulin bolus or infusion or glucose recheck
 - Patients with insulin given (between anesthesia start and anesthesia end), recheck within 120 minutes (anesthesia end + 2 hours)
 - Patients with glucose < 60 (between anesthesia start-2 hours and anesthesia end) with a glucose recheck of treatment with dextrose containing solution (between anesthesia start and anesthesia end + 2 hours)
- Intraoperative ventilator management
 - Exclusions
 - Patients arriving to operating room intubated or transported directly to ICU
 - Outpatient surgery
 - Patients without an endotracheal intubation during procedure
 - Measures
 - Patients without sustained intraoperative tidal volume > 10 ml/kg ideal body weight for 10 continuous minutes or greater
 - Patients without sustained intraoperative tidal volume > 10 ml/kg ideal body weight for 20 minutes or greater
 - Thresholds
 - In development
- Fluid management
 - Exclusions
 - Patients with ≥ 4 units of intraoperative PRBC transfused
 - EBL ≥ 2000 ML
 - Outpatient surgery
 - Prone surgery > 4 hours anesthesia time
 - Any surgery > 8 hours anesthesia time

- Measures
 - Patients without administration of albumin (5%, 25%, 10%) between anesthesia start and end
 - Patients without administration of hetastarch, pentastarch, or voluven between anesthesia start and end
- Thresholds
 - 85%
- Postoperative nausea and vomiting prophylaxis in patients undergoing general anesthetic with inhalational anesthesia
 - Exclusions
 - Non-general anesthetic
 - General anesthetic without use of inhalational anesthetic
 - Fewer than 3 risk factors for PONV (female gender, non smoker, PONV/motion sickness history, opiate administration)
 - Measure
 - Patients with administration of 2 or more classes of antiemetics between anesthesia start-6 hours to anesthesia end (5HT3 antagonist, steroids, phenothiazine, IM ephedrine, butyrophenone, antihistamine, or anticholinergic)
 - Thresholds
 - 95%

Clinical outcome

- Medication overdosing
 - Exclusions
 - Electroconvulsive therapy patients
 - Measures
 - Any patient receiving any dose of naloxone
 - Any patient receiving any dose of flumazenil
 - Thresholds
 - 0
- End organ damage or failure
 - Exclusions
 - Arrived to OR intubated
 - Serum Troponin-I measured within 60 days prior to anesthesia start
 - Baseline serum creatinine > 4.0 within 60 days prior to anesthesia start
 - Measures
 - Reintubated in recovery room or operating room
 - Postoperative troponin-I > 1.00 within 4 postoperative days
 - Postoperative Stage I, kidney injury (KDIGO criteria)
 - 1.5 x baseline serum creatinine (measured within 60 preoperative days) observed in first 7 postoperative days
 - 0.3 mg/dl rise in creatinine within 48 hours
 - Thresholds
 - In development
- Pain management

- Exclusions
 - Any patient with baseline preoperative pain score ≥ 2 (on VAS scale 1 – 10)
- Measure
 - Peak pain score in recovery ≤ 5
 - Peak pain score in recovery ≤ 8
- Thresholds
 - In development

Exploratory variation in care analyses

- Anesthesia technique
 - Patients with an arterial line
 - Patients with a central venous catheter
 - Patients receiving a general anesthetic
 - Patients receiving a Peripheral nerve block
 - Patients receiving an epidural
 - Patients receiving a spinal
 - Patients receiving a spinal and a GA