



MORT 01 Review - January 22, 2024

Review MORT 01 Measure Specification by selecting this [link](#)

Feedback from Measure Reviewer(s) Dr. Kathryn Lauer - Medical College of Wisconsin

Review of new literature (Published 7/2020)

Perioperative mortality ratio or rates continue to be a standard metric of surgical and anesthesia safety. Mortality rates have been shown to relate to variabilities in quality of hospitals (1,2) and indicative of progress in development of countries (3,4) .

Recent studies have also identified systemic issues that could pinpoint opportunities for improvement in processes by measurement of mortality rates: with discrepancies in mortality in OR vs. non-OR care(5), in timing of surgery(6) and also anesthesia staffing ratios (7). These are identified operational systematic issues that affect patient safety and quality of care. Perioperative mortality captured variability in failure to rescue after MI (8), unplanned ICU admissions (9) and variability in handovers of care (10,11) affecting patient outcome. Mortality was an important metric in the face of the COVID Pandemic (12,13).

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2. Pollard R, Hopkins T, Smith C, May B, Doyle J, Chambers C, Clark R, Buhrman W. Perianesthetic and Anesthesia-Related Mortality in a Southeastern United States Population: A Longitudinal Review of a Prospectively Collected Quality Assurance Data Base. *Anesth & Analg* 2018;127(3):p 730-735
3. Braz LG, Braz JRC, Modolo MP, Corrente JE, Sanchez R, Pacchioni M, et al. (2020) Perioperative and anesthesia-related cardiac arrest and mortality rates in Brazil: A systematic review and proportion meta-analysis. *PLoS ONE* 15(11): e0241751.
4. Watters, D.A., Wilson, L. The Comparability and Utility of Perioperative Mortality Rates in Global Health. *Curr Anesthesiol Rep* 11, 48–58 (2021).

5. Herman A, Jaruzel C, Lawton S, Tobin C, Reves J, Catchpole K, Alfred M. Morbidity, mortality, and systems safety in non-operating room anaesthesia: a narrative review, *Br J Anesth* 2021;127,(5) 729-744
6. Althoff FC, Wachtendorf LJ, Rostin P. Effects of night surgery on postoperative mortality and morbidity: a multicentre cohort study *BMJ Quality & Safety* 2021;**30**:678-688.e
7. Burns ML, Saager L, Cassidy RB, Mentz G, Mashour GA, Kheterpal S. Association of Anesthesiologist Staffing Ratio With Surgical Patient Morbidity and Mortality. *JAMA Surg.* 2022;157(9):807–815. doi:10.1001/jamasurg.2022.2804
8. Mazzarello S, McIsaac D, Beattie W, Fergusson D, Lalu M; Risk Factors for Failure to Rescue in Myocardial Infarction after Noncardiac Surgery: **A Cohort Study**. *Anesthesiology* 2020; 133:96–108
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10. Meersch M, Weiss R, Küllmar M, et al. Effect of Intraoperative Handovers of Anesthesia Care on Mortality, Readmission, or Postoperative Complications Among Adults: The HandiCAP Randomized Clinical Trial. *JAMA*. 2022;327(24):2403–2412. doi:10.1001/jama.2022.9451
11. Sun LY, Jones PM, Wijeyesundera DN, Mamas MA, Bader Eddeen A, O'Connor J. Association Between Handover of Anesthesiology Care and 1-Year Mortality Among Adults Undergoing Cardiac
12. Verhagen NB, SenthilKumar G, Jaraczewski T, Koerber NK, Merrill JR, Flitcroft MA, Szabo A, Banerjee A, Yang X, Taylor BW, Castro CE. Severity of Prior Coronavirus Disease 2019 is Associated With Postoperative Outcomes After Major Inpatient Surgery. *Annals of Surgery*. 2023 Nov 1;278(5):e949-56. *Surgery. JAMA Netw Open*. 2022;5(2):
13. Glance LG, Chandrasekar EK, Shippey E, et al. Association Between the COVID-19 Pandemic and Disparities in Access to Major Surgery in the US. *JAMA Netw Open*. 2022;5(5):e2213527. doi:10.1001/jamanetworkopen.2022.13527

Appropriateness of rationale

Mortality is a universally measurable metric. Its rates are associated with variances that can identify other quality issues.

Evaluation of inclusion/ exclusion criteria

The inclusion of all patients requiring anesthesia and exclusion criteria of ASA 6 is appropriate.

Evaluation of definition of success or flagged cases

30 day mortality is a standard metric and does not need to be altered.

Other feedback

Mortality may not be captured fully in the 30 day time if patients are not admitted during death.

Mortality in healthy individuals (ASA 1-2) may be more important than high risk patients (ASA 4-5). May consider changing this metric to incorporate risk adjustment.

Recommendation from Dr. Lauer for MORT 01:

	Dr. Lauer
Keep as is: no changes at all	☒
Modify: changes to measure specifications	☐
Retire: eliminate entirely from dashboard and emails	☐



Current MORT 01 Performance (Inverse Measure)
All MPOG Institutions
November 2022 - October 2023

