

Title: Do Quality Metrics Influence Surgical Decision-Making? Implications for Shared Decision-Making in Emergency Surgical Care

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Background: External quality metrics increasingly shape surgical practice in the United States. Programs such as the Centers for Medicare and Medicaid Services (CMS) value-based purchasing program, the National Surgical Quality Improvement Program (NSQIP), and the Trauma Quality Improvement Program (TQIP) were developed to improve healthcare quality by linking outcomes to accountability and reimbursement. While these initiatives aim to promote high standards of care, they may create unintended pressures that influence clinical decision-making, particularly in emergency surgery where patients are often critically ill. Metrics that penalize postoperative mortality, for example, may discourage surgeons from operating on high-risk patients or from incorporating palliative approaches, potentially affecting equitable access to care. Drawing on insights from medical sociology and the sociology of professions, this study examines how external quality metrics shape surgeons' decision-making and may create tensions between institutional performance goals and patient-centered shared decision-making (SDM). Understanding these dynamics is essential to ensure that quality measurement systems support, rather than undermine, equitable and ethically grounded surgical care.

Methods: A multi-institutional online survey of surgeons and trainees was conducted. The survey includes both multiple choice and open-ended queries. Survey responses were interpreted using qualitative thematic coding with computational and natural language processing techniques to optimize external metrics in alignment with SDM.

Results: A total of 31 responses were included in the analysis, corresponding to an overall response rate of 14%. Among respondents, 68% identified as male and 63% reported their role as attending surgeons. The majority practiced at academic medical centers and reported familiarity with national external quality measurement programs, particularly the NSQIP. Most participants (90%) indicated that they "often" or "almost always" engage patients and their families in shared decision-making (SDM) when discussing surgical treatment options. Despite this reported commitment to SDM, more than half of respondents indicated that priorities related to quality metrics "sometimes" or "often" conflict with their clinical judgment. Similarly, over half reported that pressures associated with these metrics "sometimes" or "often" conflict with patients' goals, preferences, or desired outcomes. Free-text responses further illustrated these tensions, with several respondents describing situations in which adherence to quality metrics appeared to conflict with individualized clinical decision-making. Some participants expressed frustration and moral distress related to perceived incentives to "game the system" or comply with what they described as incomplete or inadequate measures of quality. Several respondents suggested that existing quality metrics could be strengthened by incorporating measures that capture SDM making processes, patient preferences, and goals of care, rather than relying solely on traditional clinical outcome measures.

Conclusions: These findings suggest that current external quality metrics may not fully capture the complexity of decision-making in emergency surgical care. Incorporating patient preferences, goals of care, and measures of SDM into quality frameworks may help better align performance metrics with patient-centered care. Addressing the tension between clinical judgment, SDM, and institutional metric pressures may also improve the care experience for both patients and surgeons, while potentially reducing professional frustration, moral distress, and burnout among surgical providers.