Risk Adjustment for Quality Measures Is Neither Binary nor Mandatory

Holding health care organizations and clinicians accountable for health care quality has been championed by the Joint Commission, the Centers for Medicare & Medicaid Services (CMS), and health care payers for more than 15 years. More recently, quality assessment has increasingly emphasized outcome measures rather than process measures, as outcomes are of greater interest to patients and payers. However, because outcomes are less directly controlled by clinicians and health systems than processes, this emphasis has magnified the importance of using robust risk adjustment methods to control for factors beyond the reach of clinicians or health systems.

However, risk adjustment methods used in practice are often not robust and reflect the limits of available data. Baker and Chassin inventoried risk adjustment methods across a wide spectrum of clinical domains and public reporting, payment, and accreditation authorities and found that 5 of 10 risk adjustment methods excluded important risk factors for the outcome of interest, thereby magnifying the concern of unintended consequences such as unwarranted penalties, bonuses, or detriments to patient care. For example, safety net hospitals may be unfairly penalized by readmissions penalties because clinicians have little influence on social risk factors, such as homelessness and lack of social support, that contribute to readmission. A possible adverse consequence is that health systems may avoid enrolling persons with social risks that are omitted by the risk adjustment method.

Despite the importance of the rigor of risk adjustment, it is often discussed in a binary framework—meaning that either an outcome measure is risk adjusted or it is not. But omitting discussion of the rigor of the underlying risk adjustment method can undermine the greater goal of meaningful performance measurement. Employing a performance measure together with poor risk adjustment may be worse than employing no performance measure at all. Analogous issues arise when risk adjustment is used for payment determinations and affects reimbursement.

A Possible Approach for Quality Ranking of Risk Adjustment Methods

How might accountable care be pursued while moving beyond a binary notion of risk adjustment? One possible approach would be to substitute a rank-ordered schema for risk adjustment analogous to those used to rate the quality of a body of evidence, for instance, with designations, such as A denoting a risk adjustment method that is unlikely to result in adverse consequences and accordingly more likely to create more benefit than harm; B denoting a risk adjustment method that may result in adverse consequences, and accordingly may create more harm than benefit, and C denoting intermediate levels of robustness.

Objective criteria for the A, B, and C strata could be anchored in the root causes of adverse and unintended consequences that are beyond the control of clinicians yet influence outcomes. At first, this might seem like an idealistic pursuit because it is not possible to ensure that all factors contributing to an outcome have been identified, let alone measured, but on closer inspection this goal may be achievable. Any factor affecting an outcome can be classified into mutually exclusive categories: (1) unknown and unsuspected (the unknown unknowns), (2) unknown and suspected, (3) known and proven, and (4) known and disproven. Here, “disproven” means evaluated with sufficient statistical power to exclude a type II error, “proven” means evaluated with sufficient statistical power to exclude a type I error, and “suspected” means identified after systematic, typically qualitative, outreach with practicing clinicians who are queried about their perceptions and perspectives regarding factors beyond their control that influence outcomes. Of these 4 categories, only the first is impossible to identify and measure. However, it is not necessary to identify factors in this first category to create an A-level risk adjustment method. Unwarranted penalties or bonuses and other selection-related adverse consequences only can occur when factors are known or suspected, which does not apply to factors in the first category.

Accordingly, A-level risk adjustment might consider domains of social risks and psychological risks in addition to the more common domains of demographics, comorbidity, and severity of disease. In contrast, C-level risk adjustment could consider domains based on readily available data. B-level risk adjustment could denote risk adjustment methods that are intermediate. For example, the National Quality Forum (NQF) uses a risk adjustment method that would be graded C based on the criteria above, although it is actively considering transitioning to a method that considers some social risks and may achieve a B grade. The National Committee for Quality Assurance (NCQA) (sponsors of the Healthcare Effectiveness Data and Information Set) uses a risk adjustment method that would be graded C based on the criteria above.

Which organization could evaluate the quality of a risk adjustment method? The candidate organization would need to represent viewpoints of groups invested in health care quality, in particular patients, payers, clinicians, and health systems, yet not be beholden to financial interests that would resist additional data collection when necessary. It would be species to declare data needs infeasible because they are

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In summary, viewing risk adjustment as a binary process may impede the important goal of holding clinicians and health systems accountable for health care outcomes by increasing the likelihood of adverse unintended consequences. Viewing risk adjustment as mandatory may impede the important goal of diminishing health disparities. However, a more systematic and transparent approach to risk adjustment methods and their rationale may better align performance measurement with the outcomes that matter most to patients and society.

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REFERENCES