Vol. 3 No. 1 (2026)
ONLINE ISSN :3007-309X
PRINT ISSN :3007-3081
Journal of Medical & Health Sciences Review

HEALTH POLICY AND CONFLICT RESOLUTION IN HEALTHCARE

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ARTICLE INFO:

Keywords:
diagnostic accuracy, operational metrics, AI-driven analytics

Article History:
Published on January 26, 2026

ABSTRACT

This article examines the limitations of current quality evaluation systems in radiology, which often focus on operational metrics rather than patient outcomes. It highlights the need for a comprehensive approach that incorporates diagnostic accuracy, clinical impact, and patient-centered perspectives. The article advocates for value-based healthcare models that better recognize radiology's role in improving patient care. It suggests integrating outcome-based indicators and using AI-driven analytics to enhance real-time feedback and quality improvement in radiology departments, aligning with the broader trend toward value-based care focused on accurate diagnoses and improved patient outcomes.

INTRODUCTION

Radiology has become essential to the provision of care, even as healthcare systems depend more and more on diagnostic imaging for disease identification, treatment, and follow-up. Effectiveness, efficiency, patient safety, and satisfaction are all components of quality care, which is the cornerstone of contemporary healthcare. However, rather of focusing on actual patient-centered outcomes, quality evaluation in medical imaging emphasizes process metrics like turnaround time, radiation dose, and equipment maintenance. In contrast to diagnostic services like radiology, traditional quality assessment systems, such as those for hospital accreditation frameworks and performance dashboards, are largely made for clinical procedures and patient outcomes in direct care.

As a result, radiological quality evaluation frequently overlooks the ways in which imaging affects patient prognosis, clinical judgment, and diagnostic accuracy. This discrepancy raises an important question: can the current approaches for measuring healthcare quality accurately reflect the results of medical imaging performance? In an era of value-based care, it is crucial to comprehend this problem in order to guarantee that radiography optimally contributes to healthcare value, patient safety, and evidence-based decision-making.

RATIONALE:

Value-Based Healthcare (VBH) is a concept that is increasingly being utilized to evaluate medical service compensation and resource allocation. It is intended to enhance individual healthcare outcomes without raising costs. At many levels, radiology plays a significant role in patient and society healthcare. Despite this, some VBH models fail to recognize radiology's crucial role, which could have detrimental effects on resource allocation in the future.

CRITICAL VIEWPOINT & ARGUMENT:

Clinical endpoints such as morbidity, mortality, and readmission rates are frequently the focus of current quality evaluation systems, such as the Healthcare Effectiveness Data and Information Set (HEDIS) or hospital performance scorecards. Although these metrics are significant, they fall short of capturing the full impact of diagnostic imaging on patient outcomes. Radiology is essentially an enabling discipline; its influence is indirect, mediated by the timely and precise diagnosis that treatment decisions are based on. As a result, the overall quality measures understate the benefit of imaging.

Additionally, process metrics including report turnaround time, protocol adherence, image quality, and equipment uptime are frequently used to assess imaging departments. While these metrics are important from an operational standpoint, none of them measures whether imaging improved patient care, decreased diagnostic errors, or optimized treatment planning. For example, a fast CT scan that is reported on time does not ensure that the diagnosis is accurate or useful.

When it comes to the identification, description, and staging of illness, diagnostic accuracy is the most significant indicator of quality in radiology. Because diagnosis accuracy necessitates outcome correlation, audit, and follow-up data, it is rarely included in hospital quality evaluation systems. Quality in radiology should be linked to the diagnostic value chain, which connects image capture, interpretation, reporting, and clinical decision-making, according to research by Reiner and Krupinski (2019).

The clinical impact of imaging is equally important. Imaging outcomes should indicate if a scan improved prognostic stratification, modified patient care, or changed the diagnosis. For instance, the therapeutic window for thrombolysis and, consequently, the rates of death and disability are strongly impacted by early stroke detection by CT or MRI. Only a small number of high-quality systems, meanwhile, measure these downstream consequences. The contribution of radiology on patient outcome will likewise be unnoticeable for quality measures if clinical impact is not taken into account (Reiner & Krupinski, 2019).

Value-based imaging, where quality is determined by results obtained per unit cost, is becoming more and more popular as a solution to these limitations. A number of frameworks emphasizing appropriateness, accuracy, safety, efficiency, and patient-centeredness have been advocated by the RSNA and ACR. According to these models,

the quality of imaging should encompass not only technical and interpretive aspects but also whether the imaging was clinically justified and optimized for the patient's benefit. (Boland et al.,2017).

For example, the ACR's Imaging 3.0 project promotes the assessment of outcome indicators such decreased needless imaging, patient participation in decision-making, and improved diagnostic confidence. Although these initiatives more closely align with the concept of value-based healthcare, they have not yet gained widespread acceptance due to challenges with data integration, departmental cooperation, and electronic health record interoperability. (Rao & Levin, 2012)

Safety and patient comfort are also crucial components of radiological quality. Metrics like radiation dose management, contrast safety, and critical results communication are becoming more widely acknowledged as quality indicators; however, measures that are truly patient-centered, like those pertaining to comfort, understanding of the imaging process, and perception of diagnostic value, are still lacking. A more comprehensive perspective would be provided by including PROs in the evaluation of radiological quality. In a similar vein, dose optimization is a tangible measure of quality, particularly in CT imaging, but it frequently exists as a technical compliance metric rather than an outcome measure associated with patient benefit. A more significant strategy would balance safety and efficacy by linking dose control to lower risk without sacrificing diagnostic yield.

A multifaceted framework—structure (technology, staffing), process (protocol adherence, reporting accuracy), and outcomes (diagnostic accuracy, patient impact, safety)—is necessary for a true assessment of radiology quality. These days, quality audits can be automated, imaging results can be correlated with outcomes, and diagnostic error patterns can be found using artificial intelligence and data analytics (Brink & Kressel, 2014).

Data-driven dashboards that integrate imaging measurements with patient outcomes are being pursued by the NHS and professional associations like the ACR. Radiology departments must take part in institutional quality governance in order for such systems to be successful and for imaging results to be fully valued as contributors to the overall quality of care (Duszak & Berlin, 2021).

CONCLUSION:

Because current healthcare quality measurement methods prioritize operational efficiency over diagnostic accuracy and patient effect, they do a poor job of reflecting outcomes in medical imaging performance. As a crucial but indirect part of healthcare, radiology requires outcome measurements that reflect its true value: prompt and accurate diagnosis that improves patient care and prognosis.

Indicators unique to radiology should be included in institutional and national quality systems in future quality frameworks. This will entail keeping an eye on patient-reported results, diagnostic precision, the influence on clinical judgments, and the suitability of imaging requests. The use of AI-driven analytics and interoperable health records, which offer real-time feedback and ongoing quality improvement, may make such measurement easier.

In the end, redefining quality in radiology is in line with the larger trend toward value-based care, where success is determined by how well imaging aids in the correct

diagnosis, treatment, and patient outcomes rather than by the quantity of scans carried out. Radiology can make a more compelling argument for its essential role in providing high-value, patient-centered healthcare by improving our quality measuring methods.

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