There are many new quality metrics available for radiology, but no agreement on what to use, said Anand Narayan, MD, PhD, a radiology resident at Johns Hopkins University, speaking at the Radiological Society of North America (RSNA) Annual Scientific Meeting in Chicago this week. His study reviewed quality metrics in radiology in academic and private settings using standard quality metric frameworks.

For the academic setting he systematically reviewed the literature. For private sector metrics he surveyed radiology benefit management groups, the organisations contracted out by large private health insurance systems to look at utilisation and quality of practice, mostly to determine reimbursement.

The standard quality metric framework is made up of structure, process and outcomes. Structural metrics are the fixed attributes of healthcare systems, e.g. equipment, staffing. Process metrics measure activities carried out by healthcare providers to provide services, and are informed by evidence-based guidelines such as the American College of Radiology Appropriateness Criteria. Outcome metrics measure the health status of a patient resulting from healthcare, for example mortality, missed diagnoses or complications.

Looking at the 75 metrics used in academic and private practice, structural metrics made up almost half the total (46%), with outcome and process metrics making up 27% each. The most commonly mentioned structural metric was accreditation followed by board certification and the presence or absence of a quality dashboard, while for process metrics the ACR Appropriateness Criteria were top, the report finalisation time and wait times. top 3 structural metrics were accreditation, board certification and the presence or absence of a quality dashboard. The top 3 outcome metrics were peer review, patient satisfaction and provider satisfaction.

Narayan recommended that radiologists as a profession should assist payers and healthcare organisations in developing the infrastructure to collect outcome-based metrics to evaluate imaging services.

Responding to audience questions, Narayan acknowledged that there are barriers to acceptance of a single standard of quality metrics. There are so many different metrics and departments function differently, and some metrics require data collection infrastructure. It is something radiologists could move towards, e.g. mammography false positive rates, and possibly establish or connect with state and regional registries. There is potential to move towards a more unified framework for looking at quality

Narayan acknowledged that metrics related to outcomes can be challenging to develop. Does the metric actually lead to downstream consequences e.g. is the image correctly labelled? Does that have an impact on outcomes, as it is a very rare occurrence? It would be possible to come up with intermediate metrics before considering metrics such as mortality e.g. recall rates, concordance between operative notes and radiology
interpretations.

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