

The Challenges in Delivering the Value Chain

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The first 7 articles in this Imaging Value Chain series heralded the charge for radiologists to take a leadership role in the evolving volume-to-value health care reform agenda. These articles introduced an approach by which this charge could be accomplished using the 5 pillars of the ACR's Imaging 3.0™: appropriateness, quality, safety, efficiency, and patient satisfaction [1]. Within this series, we followed the value chain from its initiation (when a treating physician considers whether an imaging examination is necessary) to the ordering of an appropriate examination, patient scheduling and arrival, examination protocolling by the radiologist, performance of the examination, reporting of the examination, and finally, communication of the report to the treating physician (and increasingly, the patient).

At each link in the chain, we discussed the resources and tools necessary to re-engineer radiology workflow to deliver a product that provides greater value to referring physicians and patients. Radiologists are, essentially, in the information business, so value is ultimately created with the delivery of a timely report. The goal is to generate a report that is both succinct and structured (using a standard lexicon) so that it is actionable by the referring physician and patient. In addition, in the era of precision

medicine, such reports will be mined for data to identify subpopulations of patients with similar imaging findings that can be used to improve diagnoses and treatments.

As a response to these articles, however, a number of radiologists are asking how better value can be delivered in actual practice, as it has neither a clear definition nor a roadmap for its successful delivery. Thus, early feedback suggests that even progressive practices are confronted with numerous challenges as they attempt to move from a volume to a value mind-set and delivery model. A desire has therefore surfaced for more meaningful direction, and better insight into what challenges radiologists may confront for themselves, their group, and their organization, as they move into this value paradigm.

In this second set of 6 articles, we therefore set forth with a goal of addressing the challenges facing radiologists and their organizations as they attempt to re-engineer the imaging workflow based on the principles already highlighted. In the process, we hope to offer tactics as to how to effectively overcome some of these obstacles. This first article outlines the general challenges facing radiologists, and subsequent articles offer management and leadership insight as to how these obstacles might be overcome at each link in

the value chain, as groups seek to implement the goals of Imaging 3.0.

Numerous real and perceived obstacles threaten radiologists' ability to achieve these goals. It is beyond the scope of this article to address each one in detail, but broadly speaking, those challenges can be categorized as scientific, political and financial, organizational, departmental, and finally, individual. Therefore, many of the profound challenges are, in fact, beyond the immediate control of the radiology department or individual radiologists.

From a scientific perspective, despite the dramatic advances in medical techniques, devices, and drugs, there remains a general paucity of clear scientific evidence that mandates consistent long-term adherence to best practices. This challenge is particularly applicable in radiology, given the relatively few studies (eg, CT for the investigation of suspected appendicitis in adults) that demonstrate with sufficient evidence to referrers (and payers) the need for more imaging. This lack of clear evidence means that national bodies (eg, the ACR) often resort to clinical guidelines that, although based on the best and latest evidence available, are often incomplete and imperfect. Furthermore, as new evidence becomes available, best practices and guidelines naturally change, which challenges radiologists and

their departments to maintain their respective knowledge bases. This dynamic is particularly relevant in the emerging era of precision medicine, in which investigation and treatments are increasingly based on individuals and subpopulations according to their unique biomarker portfolios.

Even when clear scientific best practices have been established, government, payers, and providers are frequently not aligned. Government and payers often provide mandates that are usually in flux, challenging organizations to understand fully the framework within which their health care services should be structured, delivered, and paid. Witness the intense political debate over health care reform: how and if the current national reform agenda under the Affordable Care Act will survive is far from clear [2].

A central tenet, however, of nearly all health care reform initiatives—and one that is likely to be enduring—is the movement away from a transactional, volume-based (ie, fee-for-service) reimbursement system, to one that is driven by value and outcomes. To many, the precise meaning of value-driven health care is far from clear, as are the methods by which it should be delivered, measured, evaluated, and compensated. One response has been industry consolidation, as it seeks to aggregate covered lives, to capitalize on population health modeling. But this strategy often serves to complicate effective care delivery, owing to fragmentation of services (which are often geographically separated). Until services are aligned and integrated across health systems in a manner that fosters the delivery of better care, radiologists will likely be left having to cover disparate institutions, each with their own

operational standards, guidelines, and workflows.

Many radiologists have noticed they have less influence than heretofore, partly because of commoditization of the specialty, but additionally because they are seen increasingly as high-cost providers in a cost-constrained environment. Radiologists may therefore find it harder to advocate for themselves and compete with other hospital priorities. Accordingly, the message of Imaging 3.0 may sometimes fall on deaf ears, despite its inherent benefits to an organization operating under emerging value-driven paradigms.

Obstacles can emanate from other medical staff as well, who may have become indifferent to radiologist initiatives over recent years, given the specialty's relative lack of organizational visibility and commoditization. Others may be skeptical that radiologists are even serious about Imaging 3.0, given that it runs counter to the perceived mind-set that some radiologists are focused primarily on high relative-value-unit outputs. In addition, issues over areas of responsibility, which, if anything, have increased recently, have sidelined or removed some traditional radiologist activities. Finally, many radiology groups still serve as independent hospital contractors (rather than being employees) and may therefore not be fully aligned with the central direction and vision of hospital and medical staff leadership.

Perhaps—and sadly—the greatest obstacles to the delivery of the Imaging 3.0 initiatives are sometimes radiologists themselves. Many struggle to even contemplate a value-driven product, let alone plan for and subsequently deliver it. Despite widespread knowledge that payment models will likely shift away from

being fee for service, many radiologists continue to function with the traditional volume-driven mind-set. Perhaps this lack of change is not surprising, given that the fee-for-service model is still, for now, the basis on which most radiologists are paid, and because of the intense skepticism that reform initiatives are sustainable given the political environment. Many radiologists will therefore choose to continue to “ride the volume train” until it is, once and for all, derailed.

The current uncertain and challenging times therefore require leaders with the foresight, vision, and courage to redirect their partners, employees, and departments toward a value-driven product that is aligned with such efforts (rather than traditional relative value units). In addition, radiology leaders need strong negotiating skills to advocate for institutional resources (both personnel and technological) to implement needed changes (eg, clinical decision support systems). Without the necessary tools, ideally standardized across the imaging enterprise, delivery of Imaging 3.0 will remain elusive.

Ultimately, radiologists themselves carry the responsibility of embracing the core principles of Imaging 3.0, a fact that, as previously discussed, may not be self-evident. Many of these initiatives require radiologists to transition from an autonomous and relatively unaccountable (sometimes idiosyncratic) mind-set to one that recognizes the need for systems, workflows, and guidelines that foster standardization and reduce variance. Many radiologists are already skeptical of the need for operational standardization to improve quality and safety (partly because the evidence for this is often lacking). The current, sometimes contentious, debate over freestyle

versus structured reporting, and use of a common, standardized lexicon, exemplifies this challenge. Given that structured reports are currently relatively unsophisticated, and not disease based, some radiologists are reluctant to endorse what they perceive as an inferior product, despite evidence that structured reports are preferred by referring physicians [3].

Despite the myriad challenges, radiologists have an imperative to embrace Imaging 3.0's call to action

to all radiologists to assume a leadership role in shaping America's future health care system [1]. Those groups who adopt a wait-and-see attitude will almost certainly be disadvantaged. For this effort to succeed, radiologists must be the primary drivers—rather than followers—of the substantive change processes. This series of articles takes a step-by-step approach, through the imaging value chain, to outline the key strategies, tactics, and management imperatives necessary to achieving

success. The next article focuses on implementation of clinical decision support systems.

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