

Five Reasons Radiologists Should Embrace Clinical Decision Support for Diagnostic Imaging

On March 28, 2014, with the Doctors Caucus notably absent from the House chamber and using a somewhat controversial voice vote, the House of Representatives passed yet another patch to Medicare's sustainable growth rate (SGR) formula. HR 4302, the Protecting Access to Medicare Act of 2014, provides a 12-month patch to the SGR formula and prevents a 24% cut in Medicare reimbursement to physicians and other health care professionals. The Senate passed the same bill by a vote of 65 to 34 on March 31, and after the Senate vote, President Obama signed the bill into law, ending the 133th Congress's yearlong effort to finally reform the SGR formula. With the \$138 billion cost of permanent SGR repeal at a multiyear low, we are all disappointed that there is no permanent reform, but unfortunately, election-year politics prevented Congress from developing a solution that would pay for a permanent fix.

On a more positive note, this year's SGR patch legislation is different from previous iterations because instead of just providing for a clean SGR patch, the bill contains a number of health care policy provisions designed to provide incentives to move our health care system from volume-based care to value-based care. At the urging of the ACR, HR 4302 includes a provision that creates an imaging clinical decision support program in Medicare using appropriate use criteria developed or endorsed by national professional medical specialty societies or other provider-led entities. The program, to be implemented in 2017, effectively prevents Medicare from adopting call-in prior authorization for imaging utilization

management and establishes radiology as a leader in promoting evidence-based imaging care for our patients. Yet at a time when reimbursement for imaging services continues to decline, promoting clinical decision support imaging, which could lower the volume of imaging care we provide, seems counterintuitive. However, there are 5 important reasons radiologists should enthusiastically embrace the use of decision support.

First, clinical decision support provides many benefits over unmanaged imaging care or call-in prior authorization programs. First of all, all radiologists should support eliminating unnecessary care. The technology boom that led to the accelerated use of diagnostic imaging by our referring physicians to some degree outpaced their knowledge of how to use imaging appropriately. Inappropriate imaging leads to unnecessary radiation exposure for our patients and adds unnecessary costs to the health care system. The growth in the use of imaging that occurred in the past decade has been the primary driver of decreases in fee-for-service system payments for imaging and has caused many payers to implement prior authorization utilization management programs for imaging. In contrast to prior authorization, clinical decision support at the point of order entry is transparent, educational, and efficient for ordering physicians, allowing them to focus on patient care rather than navigating third-party authorization workflows. Referring physicians are provided with a graded appropriateness score rather than a binary yes-or-no answer and are frequently guided to more appropriate examinations. Structured indications are

available to radiologists, with meaningful reasons for the examination allowing correct protocoling of examinations and correct International Classification of Disease, ninth rev, coding leading to enhanced regulatory compliance.

Second, clinical decision support provides high-quality evidence to patients' treating physicians. Considering all potential sources for rules and guidelines, medical specialty societies are best equipped to develop guidelines for an effective utilization management program, and the ACR Appropriateness Criteria[®] provide this type of guidance. Created over 2 decades by hundreds of radiologists from academics and private practice and with multidisciplinary consensus through participation by many other medical specialties, they are the most complete and definitive guidelines available for the appropriate use of diagnostic imaging. The ACR Appropriateness Criteria are completely transparent, well documented with evidence from the literature and consensus from multiple specialties, and continuously updated.

Clinical decision support also provides the best way to achieve standardized clinical practice while allowing flexibility at the local level to foster continued innovation in imaging care. Payers, health systems, and policymakers want to eliminate variability in medical decision making whenever possible. There are many examples of how our specialty is already working toward these goals: the RSNA's Quantitative Imaging Biomarkers Alliance, the Fleischner Society criteria, BI-RADS[®], LiRADS, LungRADS, and papers from the incidental findings committees all

allow us to make standardized recommendations. Too many rule sources, particularly if derived from experience-based medicine, can create confusion and send mixed messages to referring physicians and the public. That said, to promote ongoing innovation, clinical decision support allows the implementation of local decision support rules. Academic departments, in particular, may need a higher degree of localization than community hospitals to promote research protocols, and clinical decision support allows this flexibility.

Third, clinical decision support informs treating physicians' decision making at just the right time: at the point of care. The delivery of the ACR Appropriateness Criteria has progressed over my 25-year career from a giant ring binder to a CD-ROM and then to searchable, web-based product, but our referring physicians only rarely used them at the point of care. ACR Select™, a digitized clinically consumable decision support tool, provides a digital web-based delivery solution that integrates clinical decision support into order entry and brings the ACR Appropriateness Criteria into clinical use at the point of care, and with integration into electronic health record products, there is potential for widespread adoption. Interacting with the electronic health record will be requisite for ordering physicians, and providing appropriate use guidance when they enter the reason for an examination provides the best workflow solution.

Fourth, clinical decision support increases the relevance of radiologists to ordering physicians and the health system. Although a large majority of examinations will be ordered without the involvement

of radiologists, orders generating low appropriateness scores could trigger consultations with radiologists. These interactions allow radiologist intervention at the appropriate time and will increase radiologists' visibility and value to their health systems. Because decision support systems provide an appropriateness score for every examination, these data can be the basis for analytics that will help understand causes for inappropriate utilization, and radiologists can be associated with the educational efforts to improve ordering physician performance. Nationally, policymakers will see radiology as part of the solution, not part of the problem, and that may positively influence our ability to maintain reimbursement in the fee-for-service system.

Fifth, there are value scenarios for radiologists who embrace clinical decision support in both accountable care and fee-for-service payment systems. Payment models are transforming from fee-for-service to value-based systems, and whether we like it or not, imaging reimbursement will not be immune to this transition. In accountable care (capitation) models, utilization management is a valuable and necessary element of the program, and if run by radiologists using robust decision support tools, utilization management could be a source of revenue for radiologists as well. Managing imaging utilization gives radiologists a seat at the table with a value-based solution for the health system. At the same time, fee-for-service payment models will likely be around for some time to come. In fee-for-service, radiologists must understand that in a world driven by consumerism, if there is no value, there will be no volume. If one considers the following value

equation, where VI is the value of an imaging study,

$$VI = \text{appropriateness} \times \text{outcome} / \text{cost},$$

no matter how good everything else is, if the reason for doing an examination is inappropriate, there is no value. Those radiologists who are committed to value will have an inherent advantage over those who are not, and perhaps more important, timely, accurate, interpretations, although requisite, will not be the sole measure of our value. Value-based payments in the Physician Quality Reporting System or meaningful use of IT may become available but are not a panacea. Opportunities on a larger scale may come from radiologists working with the non-Medicare payers, whereby savings generated from radiologist-managed imaging utilization programs are shared with the radiologists. By implementing clinical decision support tools before moving to risk-sharing payment models, radiologists will be able to collect data that will inform their move to population-based and risk-sharing payment systems.

Although I think all of us hope that the next Congress will be able to find a way to reform the SGR formula, it is good to know that there is now a precedent for enacting meaningful health care provisions even when Congress cannot agree on a permanent solution to reforming the SGR. Aligning incentives is key for health care reform to work, and establishing the clinical decision support model for imaging in the Medicare program is a step in the right direction. Wide adoption of clinical decision support will be the best way for us to prevent additional fee-for-service payment cuts for imaging as we transition to other payment models.