

## Case Study: Digital Guidance

**ACR Select™ helps providers determine the most appropriate imaging exams at the point of care.**

By Jenny Jones

### Key Takeaways:

- ACR Select™ delivers a web-based clinical decision support system that includes ACR Appropriateness Criteria® recommendations.
- The tool can be integrated into existing computerized physician order entry and electronic medical record systems or accessed through a web portal to quickly identify appropriate procedures at the point of order.
- ACR Select facilitates consultations between ordering clinicians and radiologists.

In the past, ordering clinicians who wanted to ensure they requested the right imaging exams for patients had two choices: consult with a radiologist or research recommendations by searching through the ACR Appropriateness Criteria® (AC) — evidence-based imaging guidelines established and revised regularly by panels of health care providers assembled by the College. To streamline the process for identifying appropriate exams and improve patient care, the ACR has partnered with technology vendor National Decision Support Company (NDSC) to develop and deliver ACR Select™ — a web-based clinical decision support system that includes the AC recommendations.

ACR Select ranks the appropriateness of procedures based on the selected indications or clinical scenario. Institutions can integrate ACR Select into their existing workflows and use it at the point of order — when determining appropriateness is most critical. “ACR Select is a clinical decision support system that providers can use to ensure each patient receives the right imaging procedure,” says Bob Cooke, vice president of marketing and strategy for NDSC, the licensing agent for the ACR Select. “It drives the value-based initiative model by eliminating unnecessary and repeat tests, and instead focuses on necessary tests.”

ACR Select strengthens the value of radiology in health care and advances ACR's Imaging 3.0™ initiative by facilitating dialog between ordering physicians and radiologists. Ordering clinicians who use the system will have immediate access to the AC and may contact radiologists for consultation, particularly when an exam's appropriateness rating is in question. Radiologists then become more integrated as partners in patient care — an important step as the reimbursement system transitions from a volume-based to a value-based incentive model.

### Ranks Appropriateness

Institutions can integrate ACR Select into existing computerized physician order entry (CPOE) and electronic medical record (EMR) systems or access it through a web portal. When accessing the system through the portal, users can navigate to the recommendations by entering indications/clinical scenarios or by entering the procedure and indications/clinical scenarios. Using the indication-driven workflow,



ACR Select in use across the USA.

providers enter the patient's age and gender, the body part to be scanned, and the indications or clinical scenario. Providers enter the same information when using the procedure-driven workflow in addition to the modality. When accessing the system inside of a CPOE and EMR platform, providers use the existing workflows of the EMR. But instead of entering a free-text reason for an exam, physicians select a structured reason from a list of clinical scenarios presented by ACR Select.

Once a provider enters the data into the system, ACR Select scores the appropriateness of the exam based on the patient's clinical condition by assigning a numerical rating from 1 to 9, with 9 being the most appropriate. ACR Select can then display feedback to the physician, including the appropriateness rating for the requested exam and a list of other possible exams with their appropriateness ratings. Providers can also view the supporting evidence contained in the AC.

ACR Select calculates the appropriateness rating so that feedback can be provided. Administrators can configure the feedback based on how the administrator has chosen to configure the system for the physician's specialty or care setting. For instance, the system can be set up to:

- Silently record the appropriateness of the order for future analysis
- Display the appropriateness rating if the score is below a certain threshold, but allow the provider to proceed with the selected exam, even if it is not ranked as the most appropriate exam

ACR  
1891 Preston White Drive  
Reston, VA 20191  
703-648-8900  
www.acr.org/Imaging3

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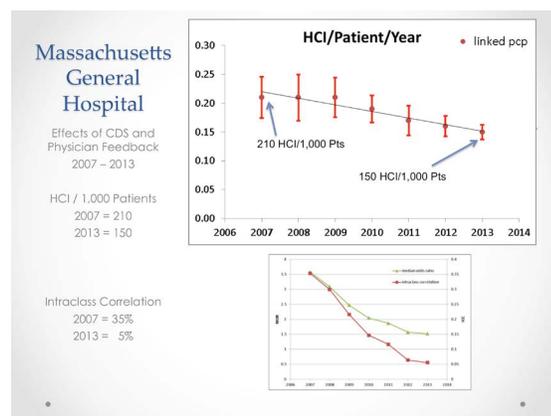
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- Require the provider to select an alternative exam over a lower-scoring one
- Require the provider to contact a radiologist for consultation regarding certain scores, while also possibly requiring the radiologist to “approve” the order

While ACR Select can be configured to require providers to select a more appropriate alternative exam should one exist, so far many institutions have found it unnecessary to use punitive workflows. “Ordering physicians want to do the right thing for patients and are usually encouraged enough by the guidance to contact the radiologist about an exam’s appropriateness without making it a requirement,” Cooke says. He adds that as ordering physicians use ACR Select, they become increasingly better at identifying appropriate exams, and therefore their consultations with radiologists tend to focus on exams with questionable appropriateness ratings or on special circumstances where a patient has a complex clinical condition.

Radiologists can also position themselves as stewards of appropriate imaging and become an integral part of the ACR Select workflow by making themselves available to consult with referring providers as they order imaging exams. Once the system prompts the referring physician to initiate the consultation, the radiologist can review the patient data, including the structured reason for exam and patient history, to help guide the ordering physician to the most appropriate test. This review can happen either interactively or asynchronously to the ordering workflow. “The workflows and data that ACR Select creates are invaluable in developing risk-based payment models for imaging services, where the radiology practice can participate in risk-based payment models involving imaging services by impacting utilization,” Cooke says.

[View](#) a larger version of the chart.



Massachusetts General Hospital's experience with clinical decision support.

### Robust Radiology Product

Even though ACR Select is geared toward ordering physicians, radiology practices can also use the system to ensure that the orders they receive are the most appropriate for patients. Suburban Radiologic Consultants (SRC), a physician-owned radiology practice with six outpatient centers headquartered in Bloomington, Minn., recently implemented ACR Select after comparing it with other clinical decision support systems from other companies. “We tried a few different products and consulted with the people in our scheduling department who actually use the system to determine which was the best one,” says Robert F. Starosta, chief operating officer for SRC. “We found ACR Select to be the most robust product, the easiest to use, and the easiest for determining whether a consultation with the radiologist is necessary.”

SRC accesses ACR Select through the web portal. When the practice receives an imaging order, the person scheduling the procedure enters the requested exam and the other pertinent information into ACR Select, which immediately rates the procedure. If the exam is not the most appropriate, SRC’s radiologists engage the ordering provider to discuss the appropriateness criteria, Starosta says. He notes that 90 percent of the time the ordering physician follows the radiologist’s recommendation, while the other 10 percent of the time the ordering physician explains that the patient has a previously undisclosed condition that requires a lower-scoring exam. SRC chief executive officer James E. Tierney says ACR Select improves patient care by ensuring that patients receive the most appropriate exams for their specific clinical needs and by safeguarding patients from imaging over-utilization. “We think it’s important that we perform the right exam or no exam at all, if one is not necessary.”

While ACR Select offers many benefits even for radiology practices, Tierney notes that the system is most beneficial for all parties when ordering physicians use it. The primary reason SRC implemented clinical decision support is because Minnesota medical practices are required to use such systems for imaging, but ordering physicians there have been reluctant to implement them, he says. “I would recommend that other radiology practices use ACR Select,” Tierney says, “but I think it’s really important to get to the next level, where the software is integrated into the EMR systems so that providers use the tool to communicate with the radiologists rather than the other way around.” He believes the reversal will make the ordering process more efficient and will help ordering physicians become more familiar with appropriate imaging. “The more ordering physicians use the tool, the better they’ll get at ordering exams,” Tierney explains. “Most referring physicians and their staffs do a decent job of ordering

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Reston, VA 20191  
703-648-8900  
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exams, but this process would be even better if they used a clinical decision support system like ACR Select. The embedded algorithms will provide for an order that correlates with the medical necessity, justifying the exam.”

### Implementing ACR Select

Institutions license ACR Select on a subscription basis, the monthly fee based on their annual procedure volumes. “The subscription pricing is consistent with the fact that ACR Select represents a national standard for imaging appropriateness,” Cooke says. NDSC works with CPOE and EMR vendors to integrate ACR Select directly into ordering physicians’ workflows and coordinates the installation with EMR vendors. Institutions or individual providers can also access ACR Select through a portal provided by NDSC. Cooke says NDSC has worked to make implementing ACR Select as seamless as possible for all users. “As with the implementation of any new technology, there are always conceptual hurdles to cross,” he says. “But because of the minimal impact we have on the order entry process and the benefits of our product, we see very little resistance from ordering providers when it comes to adopting ACR Select.”

Even more institutions are likely to adopt clinical decision support solutions because the Protecting Access to Medicare Act of 2014 (PL 113-93) requires ordering physicians to consult appropriate use criteria when ordering advanced imaging services, effective Jan. 1, 2017. According to the bill, radiologists’ claims will be paid only if the claim includes evidence that the ordering physician consulted appropriate use criteria. “ACR Select enables appropriate use criteria within CPOE and EHR workflows,” Cooke says. “The unique decision support number generated each time ACR Select is accessed can be shared between the ordering provider and the radiologist as evidence that appropriate use criteria were consulted. This number

can be generated when ACR Select is integrated into an EHR or accessed through the web portal. We’re prepared to adapt ACR Select to satisfy the requirements of the legislation.”

### Next Steps

- Start a conversation with referring physicians to discuss how to work together using ACR Select.
- Contact vendors to determine the appropriate steps for integrating ACR Select into existing CPOE and EMR systems.
- Encourage ordering physicians to implement and use ACR Select at the point of order.

### Join the Discussion

Want to join the discussion about how radiologists can help referring providers determine the most appropriate imaging exams at the point of care by using ACR Select? Let us know your thoughts on Twitter at #imaging3.

Have a case study idea you’d like to share with the radiology community? Please submit your idea to <http://bit.ly/CaseStudyForm>.



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