

Expert insight on imaging CDS, the PAMA AUC program, and elevating care quality



The Protecting Access to Medicare Act of 2014 (PAMA) requires healthcare providers to consult appropriate use criteria (AUC) when ordering advanced diagnostic imaging services for their Medicare patients in an outpatient or emergency setting¹. Clinical Decision Support Mechanisms (CDSM) are the cornerstone technology of this program but require preparation and communication to make their use successful in clinical practice.

As the Medicare payment implications of AUC are scheduled to begin likely in CY 2023, many organizations are looking for advice on successful preparation and guidance to help them navigate the process of choosing and implementing a successful imaging CDS program – from engaging key stakeholders to refining the tool based on data analytics, as well as how to minimize the financial and maximize the clinical impact of the Medicare AUC program.

In an interview with **Dr. Jonathan Darer, Siemens Healthineers Chief Medical Officer of Medicalis CDS Solution** and key opinion leader on this topic, he provides insights on what constitutes a successful imaging CDS program and why all CDS systems are not created equal. Dr. Darer also shares his observations from years of working with key content authors and thought leaders on the subject.

Question (Q): Let's start at the beginning, what advice would you give to imaging leaders looking to address the PAMA AUC mandate and implement a CDS solution?

Dr. Jonathan Darer (JD): First, position imaging Clinical Decision Support as a physician led, multi-disciplinary quality improvement program: Use the PAMA mandate to engage your radiologists and ordering physicians to collaboratively identify problems with imaging requests including breakdowns in communication and wrong orders. Establish a vision of error free diagnostic episodes that drive quality and operational excellence.

Second, select appropriate use criteria (AUC) that align with your local best practice AUC for advanced imaging vary substantially by authoring organization. Engage your expert physicians in a review of the clinical guidelines to select the AUC that represent your local standard of care. If your physicians disagree with some AUC statements, inquire whether it's possible to contact the authors to request clarifications or modifications. Some AUC authors, especially health care systems qualified Provider Led Entity (qPLE), are eager for feedback and will consider thoughtfully constructed requests.

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¹ www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Appropriate-Use-Criteria-Program

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Third, select a clinical decision support mechanism that effectively integrates into existing ordering workflows and reduces provider disruption. To reduce provider disruption, select a CDSM that respects existing ordering workflows, keeping physicians in their native workspace as much as possible. All interactions with a CDSM should be actionable. CDS should not disrupt providers who are already delivering best practice.

Q: From your experience, what are the key steps to conduct a successful clinical decision support implementation?

JD: First, focus your efforts on implementing one or two clinical guidelines based upon high-quality evidence. Introducing imaging CDS can be perceived as a major change to ordering workflows. Staying focused on one or two clinical guidelines will ease end-users into the new workflow without being overwhelming. Starting the imaging CDS initiative with domains based upon high-quality evidence will reduce physician resistance to receiving advice from outside sources.

Second, work with your CDSM provider to support the transition from free text to structured indication capture. The most difficult hurdle of imaging CDS is asking end-users to use structured indications.

- Work closely with your CDSM provider to design workflows to create ordering screens that address the needs of the most common and important conditions with a single click while enabling end-users to add more information for more complex patients when needed.
- Wherever possible, make use of a CDSM that can consume data from the Electronic Health Record (EHR) to pre-populate indications.

And last but not least, be sensitive to IT implementation timelines. While implementing CDS gradually is helpful to end-users, long implementation timelines can be difficult for IT departments to support. Once it's clear that your end-users are well adjusted to the imaging CDS workflow, it may make sense to rapidly expand to the rest of the PAMA conditions. Health IT implementations that use a “One, Two, Big Bang” cadence allow IT to identify and optimize workflow issues in the early stages, and then mobilize their support resources for a larger go-live.

Q: What is the role of physician engagement? And from your experience, how can providers identify problems and fix undesired physician ordering patterns?

JD: CDS is one component of a larger quality improvement initiative that seeks to change physician behavior. Quality improvement initiatives start with establishing agreements regarding best practice. Effective CDS programs reinforce those agreements with point-of-care interventions. However, there is substantial evidence that without physician engagement with the actual clinical evidence, CDS interventions will have limited impact upon physician behavior. CDS interventions that are seen as Health IT led implementations are far easier to ignore than interventions that are seen as physician led quality improvement programs.

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Q: What are your thoughts on the evolution of Imaging CDS and the role of elevating care quality?

JD: The advanced imaging ordering workflow is often plagued by communication breakdowns and unwarranted variation in practice. The PAMA mandate is the opportunity to engage your radiologists and ordering providers in a proactive dialogue to improve quality and efficiency. Achieving the vision of “right order, first time” is hard to argue with and the benefits include reduced delays in patient care, fewer phone calls to make changes to orders, and streamlined revenue cycle operations.

Participate in a Learning Health Network: One of the most effective methods to improve quality is to share learnings and problems with a larger community of health systems. The Medicalis team has been convening the Imaging Learning Network (ILN) – a group composed of clinical guideline authors and health care system informaticians – in a monthly discussion of imaging CDS best practices since June 2016. The ILN seeks to support the creation of high-quality AUC, enhance the end-user experience, accelerate learning, and meaningfully advance the interoperability agenda.

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Dr. Jonathan Darer, MD, MPH is the Chief Medical Officer of Medicalis and former Chief Innovation Officer of the Geisinger Health System. He has led the development of many innovations in health information technology, clinical reengineering, and patient-family engagement including serving as the site-PI for the OpenNotes® initiative and Medicare Imaging Demonstration Project as well as serving on the National Committee for Quality Assurance’s Committee for Performance Measurement. He has authored and co-authored many published manuscripts including articles in the New England Journal of Medicine, Journal of the American Medical Association, and the Annals of Internal Medicine. He currently works for Siemens Healthineers leading imaging clinical decision support.

The statements described herein are based on the experience of the interview participant. Because there is no “typical” hospital or laboratory and many variables exist (e.g., hospital size, samples mix, case mix, level of IT and/or automation adoption) there can be no guarantee that other customers will achieve the same results.

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