
Best Practices in Clinical Decision Support Rollout



A panel of experts at RSNA 2021 discussed best practices in rolling-out clinical decision support mechanism (CDSM) solutions in preparation for the enforcement of the U.S. Protecting Access to Medicare Act (PAMA). PAMA was implemented as an alternative to global pre-authorisation to combat rising healthcare costs. These regulations apply in the emergency department and outpatient settings except for certain life-threatening conditions.

PAMA will become fully operational starting on 1 January 2022. The act includes regulation requiring medical providers to use appropriate use criteria (AUCs) when ordering CT, MRI, and nuclear medicine. These criteria are evidence-based rules for patient and exam selection for advanced imaging. The Centers for Medicare & Medicaid Services (CMS) will enforce compliance by withholding payment if proof of a CDSM is not in place when ordering advanced imaging services. They described platforms they created and implemented in their respective institutions to comply with PAMA fully.

Many U.S. medical centres have licensed CMS-approved CDSMs, which embed AUCs in ordering advanced imaging. CDSM vendors gain CMS approval by demonstrating their solution's adherence to the regulation. Programs must include AUCs for Headache, Neck Pain, Low Back Pain, Shoulder Pain, Hip Pain, Coronary Arterial Disease/Chest Pain, Pulmonary Embolism, and Lung Cancer. AUCs can either focus on these eight priority areas or create a broader platform and use internal data to drive expansion.



Dr Keith Hentel of Weill Cornell Medicine discussed multi-tiered provider access to CDSMs at his institution. The CDSM should be fully integrated into electronic health records (EHR), coding, and billing to avoid data re-entry. Outside ordering providers without access to the enterprise EHR should have a portal for entering data into the EHR to eliminate transcription. However, since permission for enterprise EHR access is not given lightly, a web-based solution has been implemented that allows entry of the necessary information without giving full access. After entering the prompted-for information, the ordering provider receives a decision support number that they need to include with their order. The major disadvantage is that manual transcription is required for inclusion into the EHR.

Dr John Mongan from the University of California San Francisco discussed the implementation at his institution. He points out that decisions between narrowly focused or maximally targeted approaches within PAMA requirements must be made. CDSM can be implemented to meet minimum requirements or improve expenditure value for healthcare quality improvement purposes. Minimal invasiveness into the workflow should be a goal. Only by writing AUCs, can complete control be assured, but this is a resource-intensive task. The CDS should be implemented from outside radiology departments to prevent interdepartmental friction. Tech fees are an incentive for outsiders to buy into the program. Dr Mongan echoes Dr Hentel on the value of EHR integration and notes the difficulty of EHR access from outside the organisation. He emphasises that CMS forbids doing CDS on behalf of external providers. The analytics that CDSMs provide can also identify outliers that order inappropriate imaging.

Dr Christopher John Roth of Duke University provided general strategies for CDS implementation. The CDSM should be optimised and integrated into the EHR to be as minimally invasive as possible for maximum benefits. The ordering providers can be incentivised to use CDS by education or convinced with analytics and should be convinced to provide adequate documentation to support their order. Analytics on guideline-discordant ordering can help build accountability.

Dr Pamela Tecce Johnson of John Hopkins discussed her institution's strategy. John Hopkins narrowly focused on eight priority areas. Evidence-based guidelines direct when it is appropriate to order advanced imaging. Appropriateness of the order is evaluated at the point of care. Direct orders are analysed in the electronic medical record. Alerts are generated for orders that deviate from the established guidelines.

Source: [RSNA](#)

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