Using Clinical Decision Support for Informed Imaging Choices

A Training Guide for Non-UM Ordering Providers

What is Clinical Decision Support ?

Clinical decision support provides information at the point of care to inform decisions about a patient's care. Clinical decision support can effectively improve patient outcomes and lead to higher-quality health care. It potentially can lower costs, improve efficiency, and reduce patient inconvenience.

Clinical decision support for imaging uses Appropriate Use Criteria (AUC) to make recommendations. As defined by the American College of Radiology (ACR), AUC are "…evidence-based guidelines to assist referring physicians and other providers in making the most appropriate imaging … decision for a specific clinical condition."

Imaging studies are scored and classified into three categories based on the selected indication:

Low Utility	Moderate Utility	High Utility
1 - 3	4 - 6	7 - 9

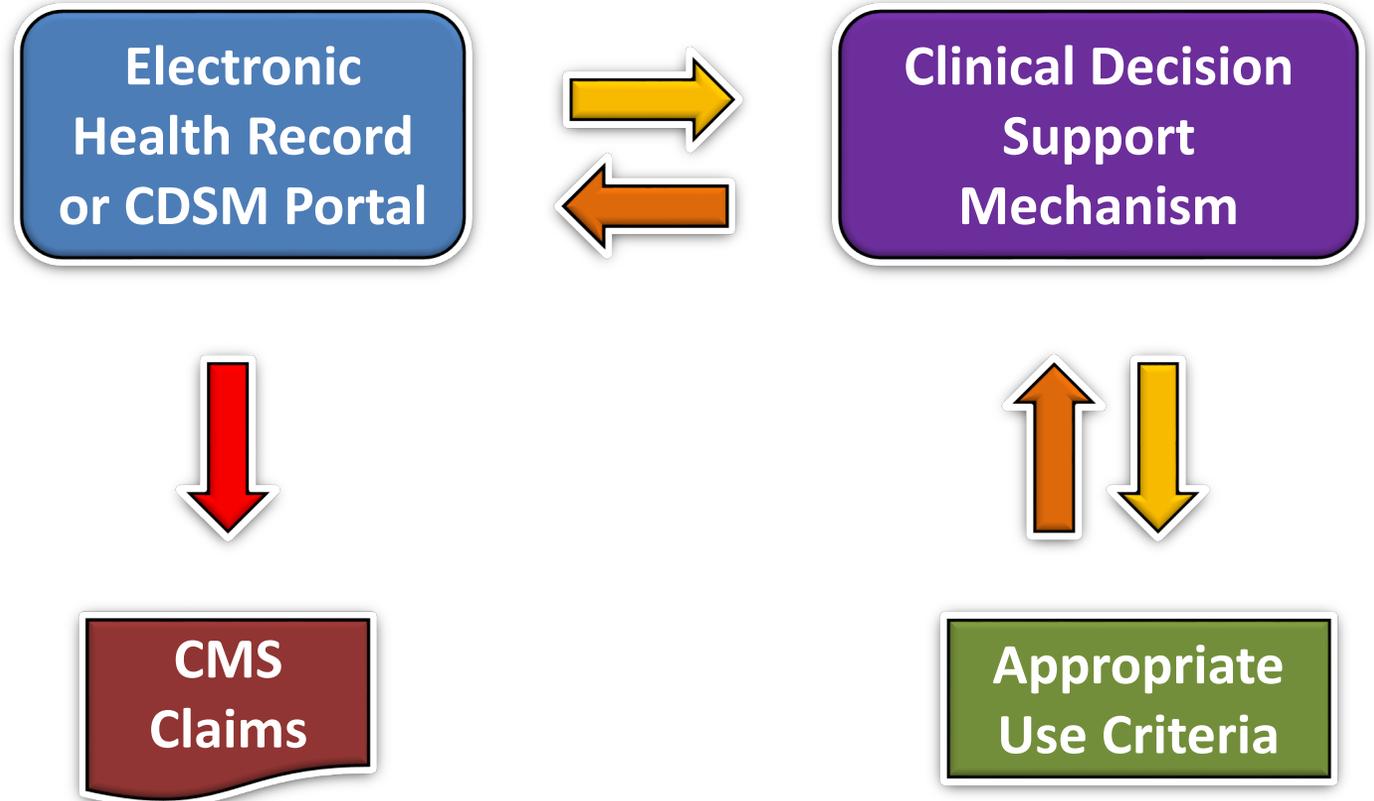# Why is Clinical Decision Support So Important?

PAMA Legislation from 2014
requires imaging clinical decision support

- During the 2019 Medicare Physician Fee Schedule update, CMS verified that ordering providers must consult appropriate use criteria (AUC) before ordering advanced imaging services

- **Beginning January 1, 2021, all Medicare claims must be submitted with the NPI of the ordering provider AND the consultation identifier number**

- Initial legislative scope
  - All Outpatient and ED *Medicare* patients
  - All CT/MR/Nuclear & PET examinations

How Clinical Decision Support Works

- CDS requires choosing **both** an indication and an imaging order in the EHR or through a CDSM portal
- This information is then sent for evaluation using AUC evaluation
- Appropriateness score for the imaging order, along with the CDS number (consultant identifier) is returned to the EHR or the portal

CDS: Clinical Decision Support
EHR: Electronic Health Record
CDSM: Clinical Decision Support Mechanism
AUC: Appropriate Use Criteria

Electronic Health Record or CDSM Portal

Clinical Decision Support Mechanism

CMS Claims

Appropriate Use Criteria

Using Artificial Intelligence CDS to Promote Better Utilization

Clinicians have two options when placing an order:

- Select a Fixed Indication from the dropdown list

    OR

- Provide a free text reason for exam, triggering the Artificial Intelligence (AI)
    - Using AI, the system will then go out to the server and provide a list of recommended indications based on the free text entry and the type of study
    - If the clinician is unsatisfied with the options presented, s/he can still submit the order by providing additional comments

Using CDS Through the Michigan Medicine Portal

Information on use of the Michigan Medicine Provider Portal can be found here: https://www.uofmhealth.org/provider/provider-portal

- The Michigan Medicine Provider Portal is a secure, web-based application for referring providers and their staff to access their patient's medical information, including clinic letters, discharge summaries, ED notes, test results, medical and problem lists, appointment notifications, etc.
- **To enroll your practice**, complete the Provider Portal User and Site Agreement and fax it to the Department of Health Information Management at (734) 998-0105 or call M-LINE at (800) 962-3555 to speak to a Physician Relations representative.

The following slides show how to use CDS within the Michigan Medicine Portal.

Michigan Medicine Portal Workflow

The entire process takes place in MiChart, Michigan Medicine's version of Epic, in the existing order entry workflow:

- The ordering provider selects an indication from a drop-down list of choices, or provides a free text reason for exam and selects a sedation level

- The order is evaluated and scored on appropriateness
  - If utility is low, alternative ordering choices are provided

- The ordering provider can choose to continue with the original order by selecting "keep", or click "remove" and select a suggested alternative by clicking the "accept" button next to it.

MM Portal Example #1: Selecting the Best Option

The provider orders a chest MRI for a patient with an indication of emphysema.

The order is assessed with appropriate use criteria. In this case, the score is **2**, representing a **low utility** exam

Optional imaging choices identified as **moderate or high utility** are offered to the provider. Relative radiation dose is provided

Clinician can cancel initial order and re-order imaging in accordance with Best Practice Advisory or keep the original order

MM Portal Example #2: Low Utility Options

The provider orders a cervical spine MRI for a patient with an indication of C-Spine DJD after an abnormal X-ray

The order is assessed with appropriate use criteria. In this case, the score is **2**, representing a **low utility** exam

For this particular indication, there are no high scoring tests

Clinician can cancel imaging in accordance with Best Practice Advisory, or keep original order

MM Portal Example #3a: No Good Option
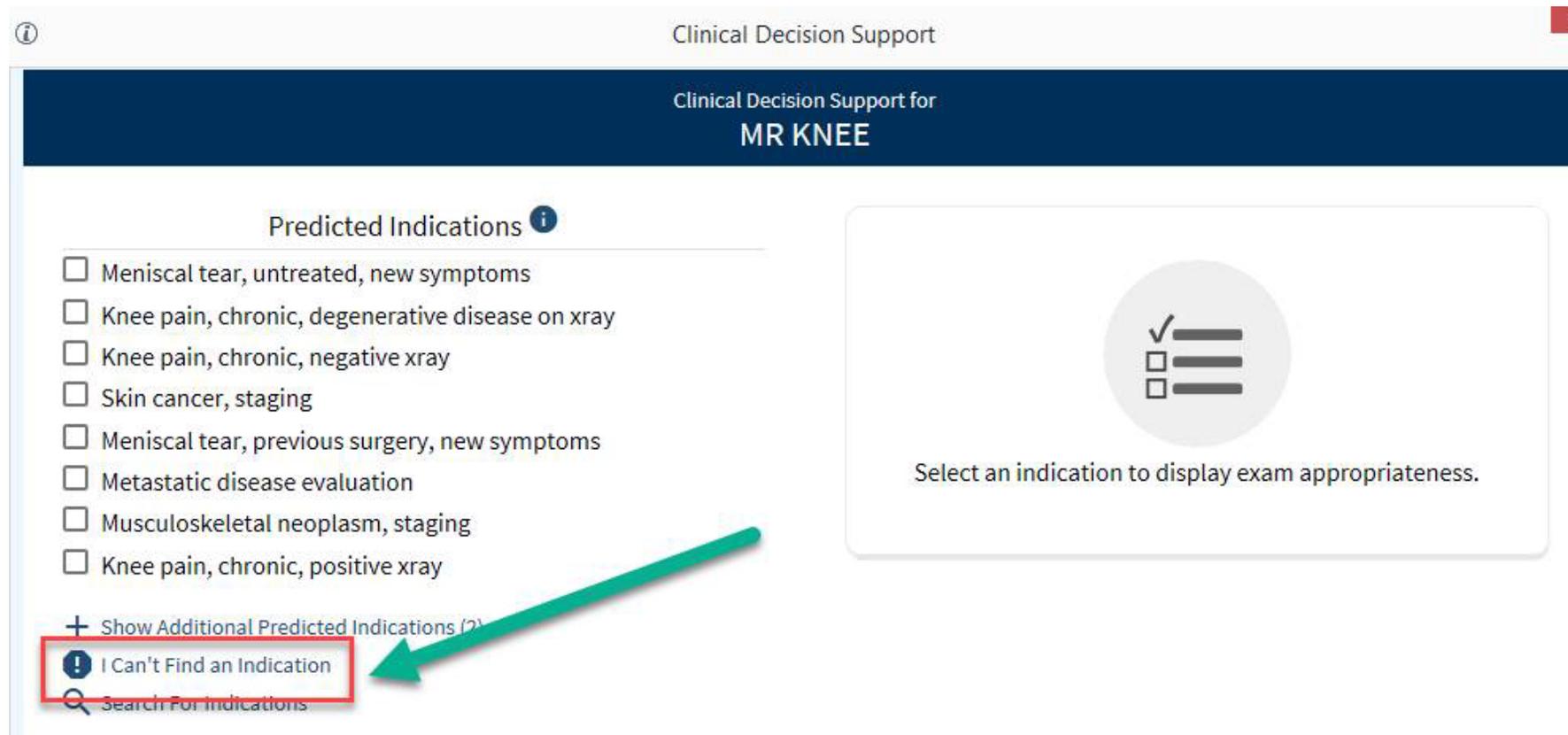
For an MR Knee study, "tenderness" was entered as free text as the reason for exam. The Predicted Indications screen appears. If the clinician is unsatisfied with the options presented, s/he can then select "I Can't Find an Indication".

MM Portal Example #3b: No Good Option

A new screen will open and the clinician is able to enter information in the comments box. The clinician will then click on "**Yes, Submit Order**". The order goes through with the additional information and will be assessed by the AI function. The AI system will become more robust for all users the more it is utilized.

MM Portal: What You Need to Know

- A Best Practices Alert (BPA) will automatically fire for **low** scoring orders

- An appropriate use criteria score of 4 – 9 ("moderate" or "high" utility), will not produce a BPA and the order will proceed without interruption

- Ordering providers **are not required** to change an imaging order identified by CDS as low utility to a higher scoring order

>>The provider should always make the choice they feel is best for their patient based upon their knowledge and experience<<

MM Portal: Benefits of Clinical Decision Support

- Guidance at the time of ordering

- Ordering provider receives instant feedback

  - Exam changes can be made within the current order without canceling

    - If an alternate order is selected, the updated order will be automatically associated with the indication initially chosen

- If the ordering provider is uncertain about which exam to order, right-clicking the problem list will open a "Search Active Guidelines" portal

  - The ordering provider can search affected body area, narrowing down to indications and a list of recommended exams

  - Once identified, the selected order can be retrieved into the existing order entry screen

More Options for Clinical Decision Support Mechanisms

A CDSM may already be incorporated into your current electronic health record system. If not here are some options:

- ChangeHealth (formerly National Decision Support Company), our CDS vendor, offers a portal available for your use: https://openaccess.careselect.org/

- Information on additional online portals is also available through CMS: (https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Appropriate-Use-Criteria-Program/CDSM)

Next Steps: After Clinical Decision Support

Once your imaging order has undergone Clinical Decision Support, you can place it with Michigan Medicine via these methods:

If you used the Michigan Medicine Portal, you're done!

Otherwise ——————

- Fax it to Michigan Medicine using existing fax numbers
- Call Michigan Medicine using existing phone numbers
- Patients can hand carry a hard copy of the order

REMEMBER that all orders <u>must</u> contain a CDS number (consultation identifier number) and the NPI of the ordering provider. **After January 1, 2022**, processing of outside orders will likely be delayed if the information supplied is incomplete.

Questions?

Contact information for Physician Liaisons