

**CDS Connect Work Group**

**Meeting Summary**

**May 31, 2018**

**3:00-4:30 PM EST**

**Attendees**

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| **AHRQ Sponsors** | Shafa Al-Showk, Robert McNellis |
| **Work Group Members** | Bijal Shah; Maria Michaels, Dana Jones, Daniel Seltzer, Danny van Leeuwen, Dwayne Hoelscher, Edna Boone, Jeremy Michel, Josh Richardson, Julia Skapik, Kavitha Raj, Marc Sainvil, Matt Pfeffer, Matt Wheeler, Michael Wittie, Nedra Garrett, Noam Arzt, Patrick O’Connor, Preston Lee, Randolph Barrows, Ryan Mullins, Shanna Hartman, Tevor Gamble-Chouinardt, Thomas Wicker, Vojtech Huser, Chris Shanahan |
| **MITRE CDS Connect Project Members** | Ginny Meadows, Sharon Sebastian, Julia Afeltra, David Winters, Kevin Hennessey |

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**Agenda**

* Welcome and brief review of meeting objectives and the agenda
* Pain Management Summary App discussion, with demonstration
* Engaging Patients with the Pain Management CDS
* Pilot Update
* Artifact Value Set Creation and LOINC Submissions
* Open Discussion and Closeout

**Meeting Summary**

**Welcome**

MITRE started the meeting by welcoming participants and reviewing the names of members participating in the call. Maria Michaels then reviewed the agenda and facilitated the rest of the discussion.

**Overall:**

The meeting included a demonstration and discussion of the Pain Management Summary application, as well as a discussion on methods to engage patients with pain management clinical decision support (CDS). In addition, updates on the pilot status, artifact value sets created, and Logical Object Identifier Names and Codes (LOINC) submissions for assessments were shared. During each presentation, work group member ideas, suggestions and concerns were encouraged.

**Review Pain Management Summary App details, with demonstration, Sharon Sebastian, Dave Winters** **(MITRE)**

Sharon Sebastian, the Project Leader for the MITRE CDS Connect team, provided an overview of the Pain Management Summary app, and decision points made in several areas.

1. The pilot site will access the app from a central link within their electronic health record (EHR). A decision was made to include the link for ALL patients, for several reasons. First, it was determined that including the link only for those patients who were within the inclusion criteria would be technically challenging especially given the short timeline (with the burden being on the pilot technical staff to implement). In addition, the pilot clinical informaticist felt that having the link always available would be acceptable to their clinicians.
2. After clicking on the link, the inclusion criteria, informed by the Center for Disease Control and Prevention (CDC) guidelines (i.e., >=18 AND a Condition associated with chronic pain OR Opioid Medication OR Adjuvant Analgesic Medication) will determine which patients will have a populated pain management summary display. If the patient does not meet the inclusion criteria, the pain management summary displays no data, and a message displays that indicates that the patient does not meet inclusion criteria.
3. Determining how to handle the exclusion criteria was a complex process. The CDC guidelines exclude patients receiving active cancer treatment, palliative care, and end-of-life care. MITRE research identified the lack of availability of specific patient data representing these concepts in the pilot site EHR. As a result, an attempt to reason over any available structured data would present an incomplete picture of the patient’s health status, potentially leading to misrepresentation and inaccuracy of the CDS. A meeting was held to discuss this with the CDC and determine an acceptable alternative. The solution implemented is as follows: when the patient’s pain summary is first opened and the patient is within the inclusion criteria, the app displays a message at the top of the pain summary indicating that the summary is not intended for patients that fall within the exclusion criteria. Clinicians will be trained to use their clinical knowledge and awareness of the patient’s health to make this determination.
4. Additional functions were discussed:
   1. Alert flags to indicate areas of potential concern, based on CDC guidelines.
   2. Tooltips that provide additional information.
   3. Information icons to indicate what data is used to populate that area of the Summary.
   4. Hyperlinks that link to guidelines and references, such as the CDC guidelines.
5. Comments and questions from the workgroup included:
   1. A workgroup member voiced concern that the link to the Summary displays for every patient. He felt that might discourage clinicians from using the Summary, since they don’t know what to expect when they click on the link.
      1. Sharon explained that the decision was made with the support of the pilot partner, given the pilot timeline and the technology barriers to filter the patients prior to the display of the Summary. Clinician feedback on this nuance will be captured and incorporated in to “lessons learned” for future implementers.

Dave Winters then provided a demonstration of the above features along with the rest of the Pain Management Summary App.

1. After the demo, the workgroup members had additional comments and questions:
   1. A workgroup member questioned why it was easier to show the message indicating the patient does not fall within the criteria than not displaying the link for that patient?
      1. Dave explained that not displaying the link would require more extensive coding by the pilot site as well as integration with the pilot EHR. With the Substitutable Medical Apps, Reusable Technology on Fast Healthcare Interoperability Resources (SMART on FHIR) approach, the EHR must launch the clinical decision support (CDS).
   2. A workgroup member asked if CDS Hooks had been considered to address the launching issue.
      1. Dave explained that the pilot EHR did not support CDS Hooks. The pilot project manager also confirmed that their EHR didn’t support CDS Hooks, and they would have needed to build additional software outside of the EHR as a workaround, and with tight timelines this wasn’t feasible.
   3. A workgroup member asked if the algorithms were in the EHR or in a webservice? Dave responded that they were in the contained within the app itself.
   4. A workgroup member commented that the ability to be flexible in how to implement the guidelines is important.
   5. A workgroup member asked if the artifact was authored using the Authoring Tool and would be available in the CDS Connect Repository. Sharon explained that the MITRE team created this by hand according to the CDC guidelines, with the intent that it will be available in the Repository. The Authoring Tool is being enhanced to support this type of CDS artifact, as well as thinking about other types such as order sets.
   6. A workgroup member asked if the CDS opioid work is being done together with the electronic clinical quality measure (eCQM) opioid work? Sharon mentioned that we have been collaborating with other CDS developers working on the CDC guidelines. Ginny Meadows mentioned that she has looked at a new proposed eCQM focused on opioids and concurrent prescribing but it was not aligned with the CDS we are implementing.

**Engaging Patients with the Pain Management CDS, Danny van Leeuwen (Health Hats), Sharon Sebastian (MITRE)**

Danny van Leeuwen discussed methods for clinicians to engage patients. Key points included:

1. Any time you engage people, it takes time.
2. We are currently in the early stages of engaging patients, and although there may be things we like or don’t like about it, the more we engage the better we get at it.
3. In order to engage a patient, you need to have some kind of relationship with that patient.
4. Time constraints must be considered. For example, is this a one-time visit or a series of visits?
5. Follow-up can be done using asynchronous communication, such as a portal and secure email.
   1. When communicating in this manner, there should be a designated responder as well as a commitment on response time.
6. A workgroup member commented on the importance of social networks in helping people that are in pain, to provide empathy and to help them feel less alone. If would be good if CDS could be more patient-centered.

**Status of Pilot, Ginny Meadows (MITRE)**

Ginny Meadows provided an update on pilot activities.

1. Completed activities were reviewed, along with the current activities, which include:
   1. Testing the app at OCHIN.
   2. Finalizing pilot training materials.
2. The upcoming activities include:
   1. Training the pilot site clinicians (targeted for June 14, 2018).
   2. “Go-live” at the pilot site (targeted for June 18, 2018).
   3. Running weekly analytics and troubleshooting, if needed.
   4. Fine-tuning the focus group questions for the end of the pilot.

**Artifact Value Sets,** **Sharon Sebastian, Ginny Meadows** **(MITRE)**

Sharon Sebastian described the complexity of finding and/or defining value sets to represent the data elements in the Pain Management Summary.

1. The first step is understanding the clinical intent of the concept described in the evidence-based source.
2. The next step is determining the best way to represent the concept, and then searching the Value Set Authority Center (VSAC) and other resources to see what is available.
   1. At times it was necessary to compare different value sets to understand the delta between them.
   2. In addition, communication was initiated with some value set authors to see if they might adjust their value set when reasonable.
3. Once the initial research was completed, a determination was made on whether an existing value set could be used, or if a new value set needed to be created.
   1. At times it was necessary to group value sets together. (For example, essential and non-essential hypertension value sets)
4. Sharon provided the final counts of 19 total value sets specified in the CDS, using 6 existing ones and creating 13 new value sets.
   1. For new value sets created, descriptive metadata was provided so that potential users would understand the intent and status of that value set. Sharon stressed that this was important to inform other potential users of that value set.
5. At times, it was necessary to use local codes for concepts, as standard codes did not exist. This included some of the Assessments as well as the concept for Morphine Milligram Equivalent (MME).

Ginny Meadows discussed the process of working with experts at LOINC to submit 2 of the standard assessments that currently do not have LOINC codes available.

1. The 2 assessments are for the PEG Assessment tool (i.e., Pain intensity, Enjoyment of life, General activity); referenced in the CDC guidelines, and for the STarT Back Screening Tool for back pain.
2. Regenstrief/LOINC is interested in identifying and including missing pain scales in LOINC, and welcomed our efforts to submit these for inclusion.
   1. To be included, the scales cannot be proprietary or charge a fee.
   2. Both PEG and the STarT Back Screening Tool meet these requirements.
3. The MITRE team met with a LOINC expert to learn what is required for submission, and completion of these submission requirements is in progress.
   1. The submission requires populating 25 columns of information in an excel spreadsheet for each assessment tool, so is not a trivial effort to undertake.
   2. An example of a completed submission spreadsheet was displayed.

Discussion from the workgroup included the following:

1. A workgroup member asked how we dealt with issues with codes that have to be partnered with other codes. Sharon agreed that it was hard to do. The MITRE team ran into this problem last year, and an MITRE terminology expert helped with this.
2. A workgroup member suggested that these are important best practices to define. Sharon agreed, and commented that one of the CDS Connect charters is to capture best practices and lessons learned.
3. A workgroup member asked if we were dealing with prescriptions claims with National Drug Codes (NDC). Sharon explained that we are not using claims information or claims history with medications.
4. A workgroup member commented that California requires clinicians to access a Prescription Drug Monitoring Program (PDMP). Ginny Meadows commented that yes, this was a new state requirement, but wouldn’t directly impact the pain management summary. The workgroup member commented that there may be a need to have the National Library of Medicine (NLM) look at this issue with NDC codes.

**Open Discussion and Closeout**

There was no time for open discussion. The meeting closed at 4:30 pm. No action items were identified.