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**Cholesterol Management Work Group**

**Meeting Summary**

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| **Date** | 07/19/2017 |
| **Time** | 1:30 – 2:45 PM EST |

**AGENDA**

* **Welcome**
* **Updates on the Pilot and Artifacts**
* **Option Year Clinical Domains**

**Next Steps and Close**

**SUMMARY**

**Welcome**

CAMH welcomed the attendees to the July Cholesterol Management Work Group (WG) meeting, and provided an overview of the agenda.

**Updates on the Pilot and Artifacts**

CAMH provided an update on the status of the USPSTF Statin Use artifact results during AllianceChicago(AC) pilot, discussed new considerations for ALT value set representation, and discussed the development of implementation guides that will accompany each artifact on the repository.

Pilot

The USPSTF Statin Use artifact was tested for one week and several of the components of the artifact were adjusted as a result:

**Pregnancy** is a major exclusion for statins. Following Meaningful Use eCQM approaches, this was initially defined as a diagnosis. However, in primary care settings, providers may not code a pregnant person with a pregnancy diagnosis. Instead they will flag or check a box in the EHR. At Alliance Chicago, they include it as an observation, so CAMH included that in the CQL coding, which picked up the applicable patient records.

**Dialysis** is an exclusion (i.e., diagnosis of end stage renal disease or dialysis in the last seven days). In a few cases, some providers were charting dialysis as a diagnosis and using a distinct ICD-10 code that equated to “dependent on dialysis”. Upon further investigation, MTIRE identified SNOMED-CT codes that might represent this intent. The development team did not want to rush the creation of a value set to represent this concept and run the risk of not including a full representation. Given the testing timeline, the implementation team decided to include this consideration in the recommendation statement presented to providers.

**Familial hypercholesterolemia:** A value set was created for this concept; however, the ICD-10 code was not saved when the value set was published. Since it goes against best practices to create an extensional value set for a single code, the CQL code was structured in a way to evaluate for the single ICD-10 code and the value set OID which includes a list of SNOMED-CT codes. This approach was validated with favorable testing results.

**Statin medications**: The CAMH team used Quality Insights of Pennsylvania’s value sets, which included only generic medications (i.e. SCDs). However, in AC’s EHR, semantic branded drugs (SBDs) are also captured. As a result, new value sets were created to represent low, moderate, and high intensity SBDs to evaluate AC’s medications.

**Hypertension:** Initially, VSAC only listed essential hypertension (HTN) value sets. The CDS Connect artifacts require a broader definition of HTN (i.e., essential *and* non-essential HTN). A new value set was created to express secondary HTN, however the CAMH team realized during pilot testing that there are also non-essential, non-secondary HTN codes that were missing. To move forward, the new value set was expanded to include all HTN concepts not related to pregnancy, since pregnancy is an exclusion and has a complicated coding structure that would take time to navigate and identify qualifying codes.

The WG members provided the following feedback:

* There are a lot of decisions that can impact clinical workflow and it is hard to build clinical decision support to support numerous EHR configurations and capabilities, so it is valuable to work through these issues. All changes are appropriate.

ALT Lab Test Considerations

The CAMH team needs to create a value set to represent ALT lab tests since none are available in VSAC. CAMH presented a list of codes and lab tests available on the LOINC website. Several codes are appropriate for inclusion, but the team asked if the WG felt that the following code be included in the value set: LOINC code 48134-1 - Alanine aminotransferase.macromolecular. The WG members did not have subject matter expertise to provide feedback on this question.

Implementation Guides

Each artifact created by CAMH on the repository will include an implementation guide (IG) to provide support for various users within three main categories:

* Clinicians and quality leaders (e.g., how to choose and understand the best algorithm or modify the algorithm for their use),
* Patients and caregivers (e.g., components that involve shared decision making and patient self-care), and
* CDS developers, Informaticists, and CQL implementers and developers (e.g., people who are involved with software transfer or technical utilization).

Each guide will include a brief artifact summary section, a clinical statement that displays the original guideline, primary and additional use case scenarios, recommendations and actions that may be provided, as well as responses and exceptions. Some additional components of IGs will include testing details and test cases, pilot notes and updates, and how the artifact and CQL resources were updated.

The WG was asked to share their thoughts on whether the IG should be a living document to incorporate ongoing thoughts, refinements, revisions:

* The guides are a great idea.
* The challenge faced in one practice is that the guides must be written for a broad audience, which conflicts with the ability to be concise. Ideally, guides are kept as brief as possible for more clarity on decision making.
* One practice has a dyslipidemia tip sheet that is a living document changed every 6 months. It has clinical guidance on one side of the page and the other side is the CDS support needed. The providers find this helpful.
* The IGs will be very useful. Usually organizations have to figure all that information out on their own. The fact that CAMH is looking for others to refine, add thoughts and iterate the work will be very informative.

**Option Year Clinical Domains**

CAMH requested the WG’s feedback and experiences with numerous clinical domains under consideration for the Option Year work:

**Expand CVD prevention and treatment**:

Consider CDS support for health education, diet, coaching, and behavior management at the patient level. One organization has integrated health education coaches to help patients. There are workflows for people who have chronic disease, smoking cessation, etc. as well.

**Diabetes**:

There are a lot of different aspects to the disease and a lot to keep track of (e.g., when they are due for next screenings). Dashboards that identify care gaps are very useful. It is a complex disease with very tricky protocols.

**Hypertension:**

This overlaps with dyslipidemia. It is more manageable and somewhat finite. CDS developers would have to gain consensus on which medicine to use since each organization favors certain ones.

**Depression:**

Can have a PHQ-9 questionnaire that pops up. Need workflow, staffing and training to be successful – not just CDS, otherwise it will slow things down. Some specialties have differing opinions on what screening tools to use.

**Acute care:**

There is potential here, such as sepsis metrics. Sepsis rules have not always been successful though. One organization is doing lactate testing and checking how lactate clears. Order sets are used in acute care settings. Piloting may depend on whether it is a clear-cut rule that people are interested in.

**Geriatric-fall prevention**:

This would provide high impact decision support for a well-defined target population, but the con is the look back period. CDS warnings about high risk meds is a consideration.

**Advanced Diagnostic Imaging:**

CDS for low back pain is an option.

**Opioids:**

There are multiple complexities involved. Alerts could guide providers in the right direction.

**Childhood obesity**:

This could be high yield. In one practice, alerts for childhood obesity are triggered by BMI and suggests labs, consultation with health coaches, and handouts for the patient. To support behavior management, one organization promotes lifestyle promotion virtually via web services, and offers telehealth services. It can be very hard to engage patients. You need to ensure that they can access what is created online.

* One organization had success when including exercise as a vital sign. They asked each patient to quantify the number of minutes/week they exercise. This was implemented in adult populations, but could also be done in children. For example, have the patient move from 0 minutes to 20 to 30.

**Immunizations:**

One organization is moving to their EHR’s module for this CDS because of the complexity in implementing CDS developed by the organization.

**Hepatitis C**

There is an option to provide screening CDS.

**Ultrasound tests**:

This is a new suggestion. For example, to generate assessment to rule out abdominal aortic aneurysm (AAA). This is a low risk test and easy to gain patient compliance since it does not involve initiating and taking a medication. It uses the same workflows as mammograms.

The WG members provided the following feedback on the clinical domain areas:

* **Focus on concepts or domains where CDS can make a difference.**
  + Some things lend themselves better to CDS than others. Diabetes is tough and there hasn’t been much success in this area. There hasn’t been much success with hypertension either, although one organization noted some successes. It just needs to be part of larger clinical workflows and accountability (just as cholesterol and cardiovascular disease concepts).
* **Ideally, you want to have public health impact as far as what saves the most lives or improves the most quality of life years.** 
  + Abdominal aortic ultrasound
    - Stage the order for the ultrasound so the doctors can sign.
    - Mammograms would follow the same workflow
* **Look for high yield areas.**
  + One organization had great success immediately after enabling CDS to prompt AAA screening and mammograms. For AAA, they targeted 65-75-year-old smokers. Lookback periods are hard. It can be challenging to identify previous ultrasounds.
  + Immunizations are high yield, but you might not want to work in that area if CDS is already available by vendors or other products.
* **Couple a guideline with a SME Specialist before creating CDS. The specialist champions the CDS and domain.**
* **It would be great to pick a domain that can be studied, as far as outcomes and impact on life.**
* **Consider investigating what is provided by vendors (e.g., Epic) to look for ideas.**
* **Consider 3 different axis when selecting new CDS:** what is doable, valuable and different (outside of what is currently available in EHRs or within an organization)

**Close and Next Steps**

CAMH announced that the August WG Meeting would be the last WG meeting for this year’s work. A demonstration of the CDS Connect Repository and Authoring Tool will be provided at August WG Meeting.

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