



# AHRQ CDS Connect - Pilot Site Training for the Clinical Decision Support (CDS) Pain Management Summary

Presented by the CAMH Federally Funded Research and Development Center, operated by MITRE





# Training Agenda

- Brief background on the CDS Connect project
- Evidence-based guidelines related to opioid prescribing and chronic pain management
- Overview of the Pain Management Summary
- How to access and use the Pain Management Summary “app”
- Demo of the app and its features
- Demo of the app in Epic Release
- Engaging patients with the Summary to facilitate shared decision making
- Evaluation of the Summary app
- Reporting concerns and sharing feedback on the app
- Final questions and closing



## CDS Connect Background Information



# CDS Connect Mission and Activities

**Mission:** Demonstrate a system that supports new evidence-based standards of care, codifies Clinical Decision Support (CDS) artifacts based on those standards using an interoperable, international data standard, and shares the resulting CDS capabilities via an accessible, web-based tool.

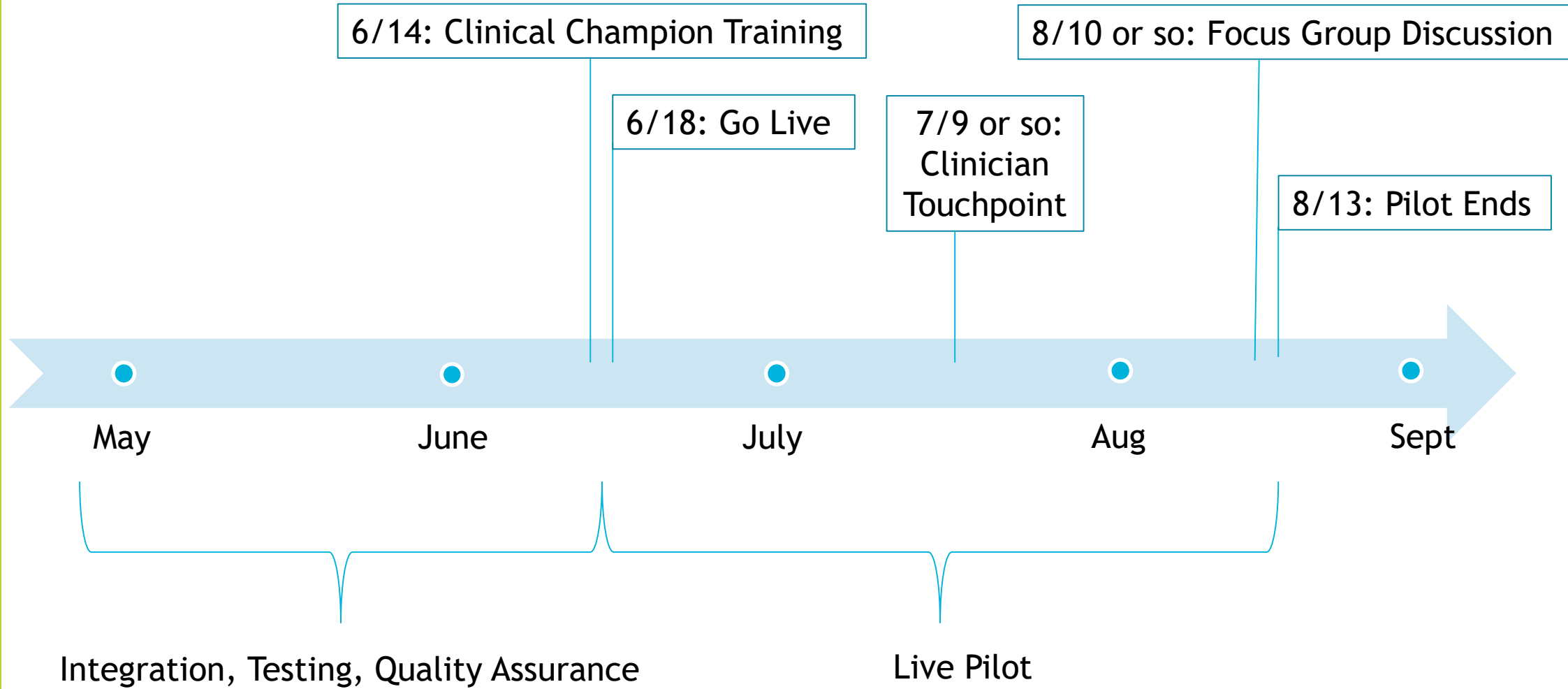
## Activities:

- **Repository:** Design and build an online software “repository” for hosting and sharing new CDS artifacts (<https://cds.ahrq.gov/cdsconnect>)
- **Authoring:** Build a public facing, web-based CDS Authoring tool geared toward non-technical users (<https://cds.ahrq.gov/cdsconnect/authoring>)
- **Artifacts:** Identify and codify new CDS artifacts for care, initially in the domain of cholesterol management and now in the domain of chronic, non-malignant pain
- **Pilot:** Pilot CDS artifacts in a live, clinical setting
- **Work Group:** Convene external discussions focused on accelerating evidence into practice through CDS

**Sponsor:** Agency for Healthcare Research and Quality



# CDS Connect Pilot: Timeline

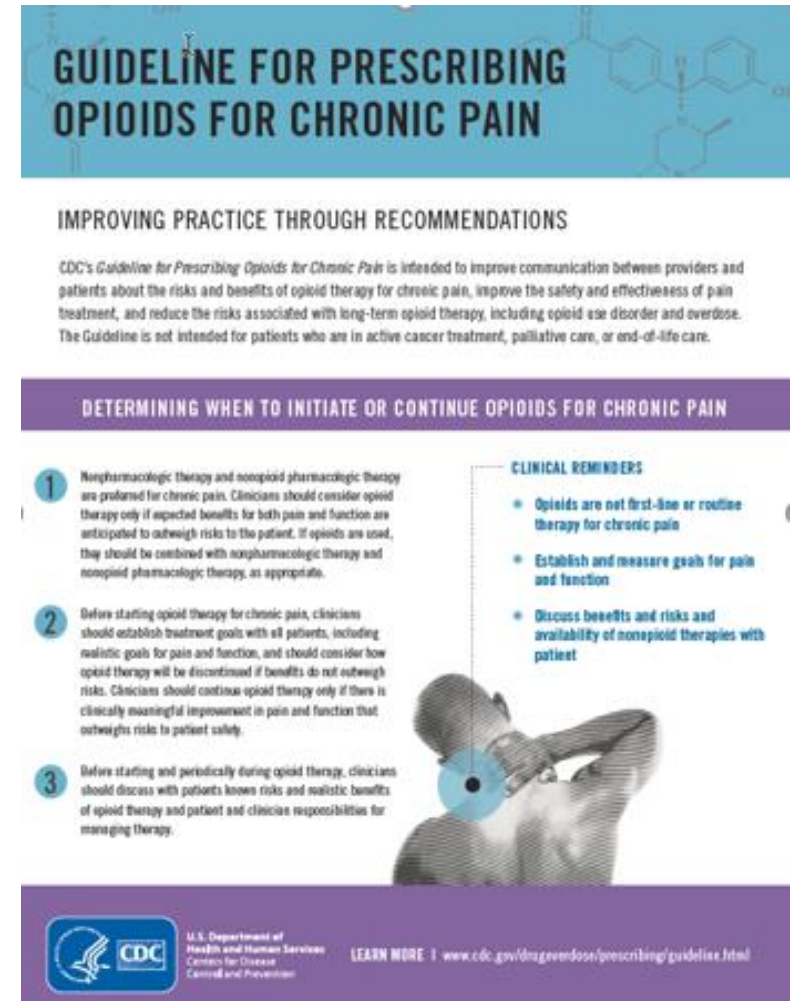




## The Pain Management Summary

# CDC Guideline for Prescribing Opioids for Chronic Pain

- **Non-pharmacologic & non-opioid therapies preferred**
- Establish treatment goals with patients
- Assess and discuss risks and benefits
  - **Prescribe naloxone if at high risk**
- Prescribe immediate-release opioids
- Prescribe the lowest effective dose
- Monitor PDMP
  - **≤50 MME/day preferred**
  - **≥90 MME/day is high risk**
- **Urine drug screening (prior to and annually)**
- **Avoid concurrent benzodiazepines**
- Offer medication-assisted Tx (MAT) for OUD



**GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN**

**IMPROVING PRACTICE THROUGH RECOMMENDATIONS**

CDC's *Guideline for Prescribing Opioids for Chronic Pain* is intended to improve communication between providers and patients about the risks and benefits of opioid therapy for chronic pain, improve the safety and effectiveness of pain treatment, and reduce the risks associated with long-term opioid therapy, including opioid use disorder and overdose. The Guideline is not intended for patients who are in active cancer treatment, palliative care, or end-of-life care.

**DETERMINING WHEN TO INITIATE OR CONTINUE OPIOIDS FOR CHRONIC PAIN**

- 1 Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate.
- 2 Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how opioid therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.
- 3 Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

**CLINICAL REMINDERS**

- Opioids are not first-line or routine therapy for chronic pain
- Establish and reassess goals for pain and function
- Discuss benefits and risks and availability of nonopioid therapies with patient

U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

LEARN MORE: [www.cdc.gov/drugoverdose/prescribing/guideline.html](http://www.cdc.gov/drugoverdose/prescribing/guideline.html)

<https://www.cdc.gov/drugoverdose/prescribing/guideline.html>



# Pain Management Summary Clinical Decision Support (CDS)

## Pertinent Medical History

- Conditions associated with chronic pain
- Risk factors for opioid-related harms

## Pain Assessments

- Wong-Baker FACES Rating Scale
- PEG & STarT Back Screening Tools
- Patient's goal for pain management

## Historical treatments

- Opioid medications
- Non-opioid medications
- Non-pharmacologic treatments
- Stool softeners and laxatives

## Risk Considerations

- MME amount
- Urine drug screen results
- Benzodiazepine medications
- Naloxone medications
- Risk screenings relevant to pain management
- PDMP access

## Objectives:

- Display relevant data to inform pain management decisions
- Include concepts outlined in the CDC guideline
- Provide contextual notifications via flags
- Facilitate shared decision making

## Be aware:

- The Summary does not display or provide notifications for all of the CDC recommendations
- The summary does not make treatment recommendations
- Clinicians are encouraged to use their medical knowledge and awareness of evidence-based guidelines to make the best decision for each patient



# CDS Summary Section: Pertinent Medical History

- Conditions associated with chronic pain
- Risk factors for opioid-related harms
  - Depression
  - Anxiety
  - Sleep-disordered breathing
  - Renal dysfunction
  - Hepatic Dysfunction
  - Pregnancy
  - Age  $\geq 65$
  - SUD\*
  - Suicide attempt\*

Pulls active diagnoses from the Problem List for most Conditions

## Sample of included diagnoses

723 Cervical Spinal Stenosis  
723.1 Cervicalgia  
723.3 Cervicobrachial Syndrome  
723.4 Brachial Neuritis NOS  
723.5 Contracture Of Neck NOS  
723.6 Panniculitis Affecting Neck  
723.7 Ossification Cerv Lig  
723.8 Cervical Syndrome NEC  
723.9 Disorder Of Cervical Region NEC  
724 Spinal Stenosis Nos  
724.01 Spinal Stenosis Of Thoracic Region  
724.02 Spinal Stenosis Of Lumbar Region  
724.09 Spinal Stenosis NOS  
724.1 Pain In Thoracic Spine  
724.2 LBP [Low Back Pain]  
724.3 Cotungo's Disease  
724.4 Lumbosacral Neuritis NOS  
724.5 Back Pain  
724.6 Ankylosis Of Lumbosacral Joint  
724.7 Disorder Of Coccyx NOS  
724.79 Coccydynia  
724.8 Ossification Of Posterior Longitudinal Ligament NOS  
724.9 Ankylosis Of Spine NOS  
729 Fibrositis NOS  
729.1 Fibromyalgia  
729.2 Neuralgia NOS

\*Pulls any instance of SUD or suicide attempt (whether active or resolved) from Encounters or the Problem List



# CDS Summary Section: Assessments and Treatments

## Pain Assessments

- Pain intensity rating
  - Wong Baker FACES scale: 0-5 rating
- Multi-dimensional assessments
  - PEG - include responses to each question and the total score
  - STarT Back Tool - include the total score only

Pulls assessments completed over the past 2 years

## Historical treatments

- Opioid medications - over the past 2 years
- Non-opioid medications - over the past 2 years
- Non-pharmacologic treatments - over the past 2 years
- Stool softeners and laxatives - over the past 6 months

### Medications:

Pulls med orders and statements

Non-opioids include:  
ASA, APAP, NSAIDS, anticonvulsants,  
antidepressants, muscle relaxants,  
topical analgesics

### Non-pharmacologic treatments:

Pulls referrals

Non-pharm treatments include:  
PT, acupuncture, electrotherapy, self-  
management



# CDS Summary Section: Risk Factors and Assessments

- MME amount - most recent
- Urine drug screen results - all within the past 1 year
- Benzodiazepine medications - all within the past 2 years
- Naloxone medications - ever prescribed
- Risk screenings relevant to pain management - all within the past 1 year
  - Opioid Risk Tool, PHQ 2, PHQ 9, GAD-7, AUDIT, AUDIT-C, DAST-10
  - Alcohol one item screen
    - How many time in the past year have you had five or more drinks (men) or four or more drinks (women). 0=none, 1=1 or more
  - Drug one item screen
    - How many times in the past year have you used a recreational drug or used a prescription medication for nonmedical reasons? 0=none, 1=1 or more



# SMART on FHIR Interface

# Target Patient Population for the Summary

The Summary **is intended** for patients  $\geq 18$  yrs. old with:

- A condition associated with chronic pain
- An opioid medication entered in their record in the past 6 months
- An adjuvant analgesic entered in their record in the past 6 months

The Summary will display and populate for these patients

CDS Connect

Fuller Jackson  
64 YRS MALE

22 Total Entries 8 Flagged Entries

### Factors to Consider in Managing Chronic Pain

**TAKE NOTICE:** This summary is not intended for patients who are undergoing end-of-life care (hospice or palliative) or active cancer treatment.

Pertinent Medical History (3)

- Conditions Associated with Chronic Pain
- Risk Factors for Opioid-related Harms

Pain Assessments (3)

Historical Pain-related Treatments (9)

Risk Considerations (7)

#### Conditions Associated with Chronic Pain

Name	Status	Start	End	Recorded
Fibromyalgia (disorder)	active	2012-Apr-05 (age 58)		2012-Apr-05

#### Risk Factors for Opioid-related Harms

Name	Status	Start	End	Recorded
Agoraphobia with panic attacks (disorder)	active	2014-Sep-01 (age 60)		2015-Feb-12
Suicide attempt, initial encounter		2015-Feb-01 (age 60) - ongoing		

Pain Assessments (3)

Numeric Pain Intensity Assessments

Status bar: Patient ID: 7a286c5-09a7-457a-ad11-ed33a5059e7 User ID: none Encounter ID: 3f945b1c-821b-40ea-a2c4-9216a12cc7b

# Take Notice

Per the CDC Guideline for Prescribing Opioids for Chronic Pain, the Summary is **not intended** for patients:

- Receiving end of life care (e.g., palliative care, hospice care)
- Undergoing active cancer treatment

since they have unique needs that require special consideration and treatment

**CDS Connect** Fuller Jackson 64 YRS MALE 22 Total Entries 8 Flagged Entries

### Factors to Consider in Managing Chronic Pain

**TAKE NOTICE:** This summary is not intended for patients who are undergoing end-of-life care (hospice or palliative) or active cancer treatment.

#### Pertinent Medical History (3)

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#### Historical Pain-related Treatments (9)

#### Risk Considerations (7)

#### Conditions Associated with Chronic Pain

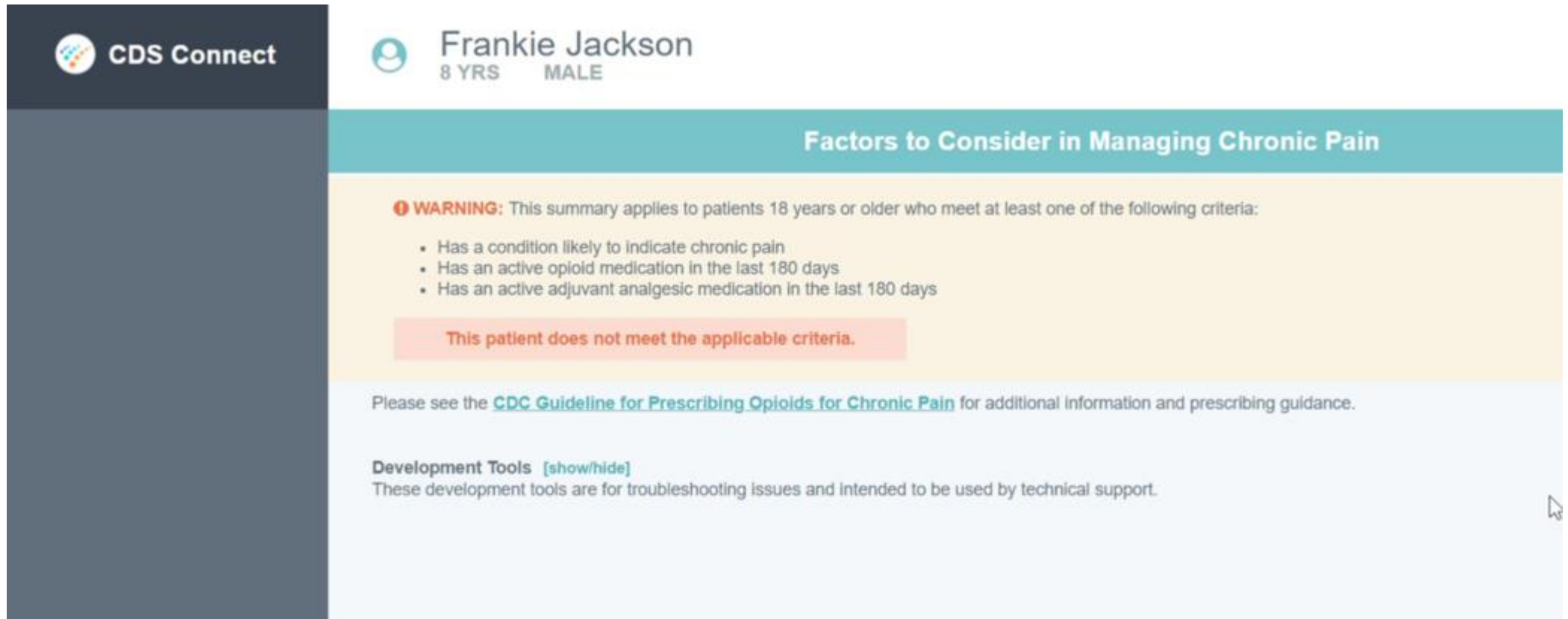
Name	Status	Start	End	Recorded
Fibromyalgia (disorder)	active	2012-Apr-05 (age 58)		2012-Apr-05

#### Risk Factors for Opioid-related Harms

Name	Status	Start	End	Recorded
Agoraphobia with panic attacks (disorder)	active	2014-Sep-01 (age 60)		2015-Feb-12

Name	Visit
Suicide attempt, initial encounter	2015-Feb-01 (age 60) - ongoing

# Warning Message (when patient does not meet applicable criteria)



The screenshot displays the CDS Connect interface for a patient named Frankie Jackson, 8 years old, male. The main heading is "Factors to Consider in Managing Chronic Pain". A warning message is shown in a yellow box, stating that the summary applies to patients 18 years or older who meet at least one of the following criteria:

- Has a condition likely to indicate chronic pain
- Has an active opioid medication in the last 180 days
- Has an active adjuvant analgesic medication in the last 180 days

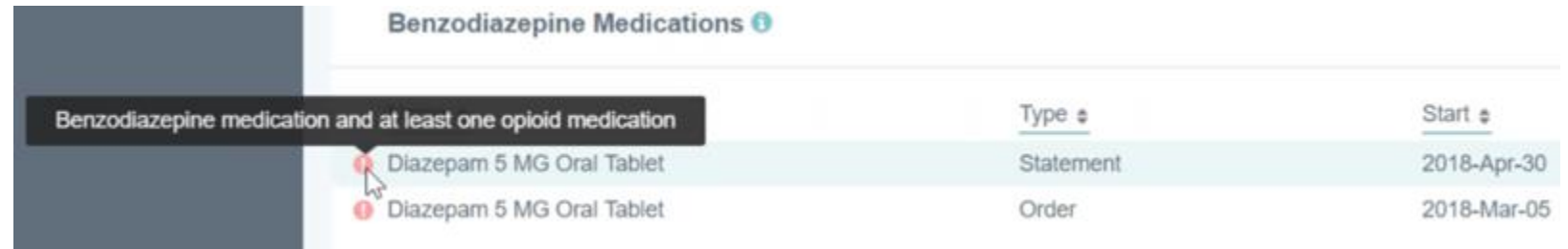
A red box below the criteria states: "This patient does not meet the applicable criteria." Below this, a link to the "CDC Guideline for Prescribing Opioids for Chronic Pain" is provided for additional information. At the bottom, there is a section for "Development Tools" with a "show/hide" link and a note that these tools are for troubleshooting issues and intended for technical support.

The Summary will NOT display or populate when the patient does not meet the outlined criteria

# Additional Information within the Summary Interface

- **Flags**

- Are intended to draw the clinicians eye to an entry of potential concern, based on CDC guidelines



The screenshot shows a table titled "Benzodiazepine Medications" with a tooltip overlay. The tooltip text reads "Benzodiazepine medication and at least one opioid medication". The table has three columns: "Type", "Start", and "End".

	Type	Start	End
Diazepam 5 MG Oral Tablet	Statement	2018-Apr-30	
Diazepam 5 MG Oral Tablet	Order	2018-Mar-05	

- **Tooltips**

- Provide additional information about why the entry was flagged

- **Information icons**

- Provide info on what data was pulled to populate the Summary and references, at times

- **URLs**

- To guidelines and additional references







## Demo of the Pain Management Summary App



## Demo of App in Epic Release



# Engaging Patients with the Summary Information

Premise: Transparency and knowledge is powerful. An activated patient will be more engaged in their care, improving their outcomes.

Level of patient engagement may depend upon:

- How much pain the patient is in
- Their relationship with the clinician
- Amount of time available

Value of sharing the summary information

- Provides a vehicle for discussion and shared decision making
- Provides an opportunity to identify errors in the patient record
- May shed new light on how assessment responses are being used

- *“I'd like to share some of the information available to help me help you to manage your pain”*
- *“Here is how the answers that you provided about your pain and quality of life are displayed to inform how to manage you pain”*
- *“Managing pain is difficult. Let's make sure that our plan helps you and doesn't hurt you.”*

[Reference: Pain Management Doesn't have to be a Pain: Working and Communicating Effectively with Patients who have Chronic Pain \(Whitten, CE, Evans, CM, and Cristobal, K\)](#)



# Evaluation of the Pain Management Summary

- Objective metrics

- Reports based on data availability to populate the Pain Management Summary App and App usage
- Reported at pre-determined intervals (pre-pilot, during the pilot, and post-pilot)

- Subjective feedback

- Midpoint touchpoint in mid July
- Focus groups at the end of the pilot period (around August 10<sup>th</sup>)
- Ad hoc touchpoints or email discussions are welcome at any time!
  - See contact info on the next slide
- If interested, thoughts captured in a Word document or scratchpad are welcome also



## Back Up Slides



# List of Flags Implemented in the Summary Interface - Part 1

- Risk Factors for Opioid-related Harms
  - Elements: Depression, Anxiety, Substance use disorder, suicide attempt, sleep-disordered breathing, renal dysfunction, hepatic dysfunction, pregnancy,  $\geq 65$  years old.
  - Always flag if present: “Factor that may place the patient at risk for an opioid-related harm.”

## Historical Pain-related Treatments

- Opioid Medications
  - Elements: opioid medication statements and orders
  - Always flag if present: “Opioid medication”
- Non-Opioid Medications
  - Elements: non-opioid medication statements and orders
  - Flag if none are present: “Absence of non-opioid medications.”
- Non-Pharmacologic Treatments
  - Elements: non-pharmacologic procedures
  - Flag if none are present: “Absence of non-pharmacologic treatments.”
- Stool Softeners and Laxatives
  - Elements: Stool softeners/laxative medication statements and orders.
  - Flag if stool softeners are *not* present, but at least one opioid medication is present: “Absence of stool softener/laxative with presence of at least one opioid medication.”

No information is flagged in the following sections:

- Conditions associated with chronic pain
- Pain and Risk Assessments



# List of Flags Implemented in the Summary Interface - Part 2

## Risk Considerations

- Most Recent MME
  - Elements: Morphine Milligram Equivalent (MME)
  - Flag if result is greater than or equal to 50: “Most recent MME assessment is 50+ MME/day.”
- Urine Drug Screens
  - Elements: Urine drug screen
  - Flag if urine drug screen is *not* present and at least one opioid medication is present: “Absence of urine drug screen and at least one opioid medication.”
- Benzodiazepine Medications
  - Elements: Benzodiazepine medication statements and orders.
  - Flag if there is at least one benzodiazepine medication and at least one opioid medication: “Benzodiazepine medication and at least one opioid medication.”
  - Flag if there is at least one benzodiazepine medication: “Evidence of a benzodiazepine medication”
- Naloxone Medications
  - Elements: Naloxone medication statements and orders
  - Flag if naloxone medication is *not* present and most recent MME is greater than or equal to 50: “Absence of Naloxone medication and most recent MME assessment is 50+ MME/day.”
  - Flag if one or more naloxone medication is present: “Evidence of Naloxone medication.”