Panelists

Wesley Sargent, Jr., EdD, MA
Health Scientist
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Associate Chief Medical Information Officer, Vice Chair for Clinical Informatics, Department of Biomedical Informatics, University of Utah Health

Edwin Lomotan, M.D.
Chief of Clinical Informatics
Division of Health IT, Center for Evidence and Practice Improvement, AHRQ

Leigh Burchell
Vice President, Health Policy and Industry Affairs, Allscripts and Chair, EHRA Opioid Crisis Task Force
Improving Opioid Prescribing through Electronic Clinical Decision Support Tools: Implementation of CDC’s Guideline for Prescribing Opioids for Chronic Pain

Wesley Sargent, Jr, EdD, MA, CDC

ONC 2018 Annual Meeting
November 29, 2018
Rapid Increase in Drug Overdose Death Rates by County
<table>
<thead>
<tr>
<th>Vital Signs: Opioid Overdoses Treated in Emergency Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>↑ 30%</strong> Opioid overdoses went up 30% from July 2016 through September 2017 in 52 areas in 45 states.</td>
</tr>
<tr>
<td><strong>↑ 70%</strong> The Midwestern region saw opioid overdoses increase 70% from July 2016 through September 2017.</td>
</tr>
<tr>
<td><strong>↑ 54%</strong> Opioid overdoses in large cities increased by 54% in 16 states.</td>
</tr>
</tbody>
</table>

**Opioid overdose ED visits continued to rise from 2016 to 2017.**

Detecting recent trends in opioid overdose ED visits provides opportunities for action in this fast-moving epidemic.

**PERCENT CHANGE**
- Decrease
- Increase 1 to 24%
- Increase 25 to 49%
- Increase 50% or more
- Data unavailable

SOURCE: CDC’s Enhanced State Opioid Overdose Surveillance (ESOOS) Program, 16 states reporting percent changes from July 2016 through September 2017.
RISE IN OPIOID DEATHS | Overlapping, Entangled but Distinct Epidemics

3 Waves
Over 350,000 people have died from an opioid overdose since 1999

SOURCE: National Vital Statistics System Mortality File
Preventing Opioid Overdoses and Opioid-Related Harms

- Conduct surveillance and research
- Empower consumers to make safe choices
- Build state, local, and tribal capacity
- Support providers, health systems, and payers
- Partner with public safety
Primary care providers

Patients 18 years or older with chronic pain

Outpatient settings

Outside of active cancer, palliative, and end of life care
Organization of Guideline Recommendations

12 recommendations grouped into 3 conceptual areas:

- Determining when to initiate or continue opioids for chronic pain
- Opioid selection, dosage, duration, follow-up, and discontinuation
- Assessing risk and addressing harms of opioid use
Comprehensive Implementation Approach for the CDC Prescribing Guideline

Translation & Communication

Education & Training

Insurer Interventions

Health System Interventions
Checklist for prescribing opioids for chronic pain

For primary care providers treating adults (18+) with chronic pain ≥3 months, excluding cancer, palliative, and end-of-life care

**CHECKLIST**

**When CONSIDERING long-term opioid therapy**
- Set realistic goals for pain and function based on diagnosis (e.g., walk around the block).
- Check that non-opioid therapies tried and optimized.
- Discuss benefits and risks (e.g., addiction, overdose) with patient.

**When REASSESSING at return visit**
Continue opioids only after confirming clinically meaningful improvements in pain and function without significant risks or harms.
- Assess pain and function (e.g., PEG); compare results to baseline.
- Evaluate risk of harm or misuse:
  - Observe patient for signs of over-sedation or overdose risk.
  - If yes: taper dose.
  - Check PDMS.
  - Check for opioid use disorder if indicated (e.g., difficulty controlling use).
  - If yes: refer for treatment.
- Check that non-opioid therapies optimized.
- Determine whether to continue, adjust, taper, or stop opioids.
- Calculate opioid dosage morphine milligram equivalent (MME):
  - If ≥50 MME/day total (≥50 mg hydrocodone, ≥33 mg oxycodone), increase frequency of follow up; consider offering naloxone.
  - Avoid ≥90 MME/day total (≥90 mg hydrocodone, ≥60 mg oxycodone), or carefully justify; consider specialist referral.
- Schedule reassessment at regular intervals (≤3 months).

**POCKET GUIDE: TAPERING OPIOIDS FOR CHRONIC PAIN**

Follow up regularly with patients to determine whether opioids are meeting treatment goals and whether opioids can be reduced to lower dosage or discontinued.

**GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN**

1. Recommendations focus on pain lasting longer than 3 months or past the time of formal disease limiting, including treatment of active cancer, palliative care, and end-of-life care.

APP includes:
- MME Calculator
- Prescribing Guidance
- Motivational Interviewing
Education & Training

Online training modules & webinars for clinicians (earn CE/CME credits)

Interactive Trainings
1. Addressing the Opioid Epidemic: Recommendations from CDC
2. Treating Chronic Pain Without Opioids
3. Communicating with Patients
4. Reducing the Risk of Opioids
5. Assessing and Addressing Opioid Use Disorder
+ 6 more planned

To learn more:
https://www.cdc.gov/drugoverdose/training/online-training.html

Clinical Outreach and Communication Activity (COCA) Free Webinars
1. Overview of Guideline
2. Nonopioid Treatments for Chronic Pain
3. Assessing Benefits and Harms of Opioid Therapy
4. Dosing and Titration of Opioids
5. Opioid Use Disorder—Assessment and Referral
6. Risk Mitigation Strategies
7. Effective Communication with Patients

To learn more:
https://www.cdc.gov/drugoverdose/training/webinars.html
Insurer Interventions

1. Cover evidence-based non-pharmacologic therapies like exercise and cognitive behavioral therapy

2. Make it easier to prescribe non-opioid pain medications

3. Reimburse patient counseling, care coordination, and checking PDMP

4. Promote more judicious use of high dosages of opioids using drug utilization review and prior authorization

5. Remove barriers to evidence-based treatment of opioid use disorder
Health Systems Interventions

- Clinical Quality Improvement and Care Coordination
- EHR and PDMP (prescription drug monitoring program) Data Integration
- Clinical decision support (CDS) tools embedded into electronic health records (EHRs)
Quality Improvement (QI) and Care Coordination Resource

- Companion resource to facilitate implementation of the Guideline recommendations into practice.
- Intended to help healthcare systems and providers integrate QI measures and care coordination into their clinical practice.

https://www.cdc.gov/drugoverdose/pdf/prescribing/CDC-DUIP-QualityImprovementAndCareCoordination-508.pdf
CDC Resources

CDC Opioid Overdose Prevention Website
www.cdc.gov/drugoverdose

State Efforts
https://www.cdc.gov/drugoverdose/states/index.html

CDC Guideline for Prescribing Opioids for Chronic Pain
https://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm

Resources for Patients
https://www.cdc.gov/drugoverdose/patients/index.html

Resources for Providers
https://www.cdc.gov/drugoverdose/providers/index.html

Clinical Decision Support Resources

• Implementation Guide Output
  http://build.fhir.org/ig/cqframework/opioid-cds/

• Source for the implementation guide
  https://github.com/cqframework/opioid-cds

• Supporting Java packages for the CQL-to-ELM translator and CQL Engine
  https://github.com/cqframework/opioid-cds-logic
STANDARDS-BASED ONC-CDC DECISION SUPPORT RESOURCES FOR CDC PRESCRIBING GUIDELINE: DEVELOPMENT, USE, AND LESSONS LEARNED

ONC ANNUAL MEETING, NOVEMBER 29, 2018

KENSAKU KAWAMOTO, MD, PHD, MHS
ASSOCIATE CHIEF MEDICAL INFORMATION OFFICER
VICE CHAIR OF CLINICAL INFORMATICS, DEPT. OF BIOMEDICAL INFORMATICS
DISCLOSURES

• In the past year, I have been a consultant or sponsored researcher on clinical decision support for ONC*, Hitachi, McKesson InterQual, and Klesis Healthcare

*via SRS, Inc. and ESAC, Inc.
ONC-CDC OPIOID DECISION SUPPORT PROJECT

• Goal: provide point-of-care, standards-based decision support for CDC Prescribing Guideline
• ONC and CDC-sponsored effort
• Contributors: CDC, ONC, AHRQ, Yale, SRS, ESAC, Epic, and many others
• Approach:
  – Use of HL7 standards: CDS Hooks, SMART on FHIR, CQL
  – Use of open-source OpenCDS framework (opencds.org)
  – Pilot implementation at University of Utah with Epic EHR using CDS Hooks and SMART on FHIR
TARGETED RECOMMENDATIONS (INITIAL)


5. Carefully reassess evidence of individual benefits and risks when considering increasing dosage to ≥50 morphine milligram equivalents (MME)/day, and avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to ≥90 MME/day.
TARGETED RECOMMENDATIONS (INITIAL)

7. **Evaluate** benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation. Evaluate benefits and harms of continued therapy with patients every 3 months or more frequently.

8. Consider offering **naloxone** when factors that increase risk for opioid overdose are present.

10. Use **urine drug testing** before starting opioid therapy and consider urine drug testing at least annually.

11. Avoid prescribing opioid pain medication and **benzodiazepines** concurrently.
EXAMPLE CQL

// TotalMME - Sum of all MME for currently and about-to-be prescribed opioid medications

define TotalMME: System.Quantity { value: Sum(MME M return M.mme.value), unit: 'mg/d' }

define IsMME500OrMore: TotalMME >= 50 'mg/d'

define Results:
  IsMME500OrMore M
  return {
    mmeOver50: M,
    title:
      if M
        then 'High risk for opioid overdose - '
          + case when TotalMME.value >= 90
            then 'taper now'
              else 'consider tapering'
            end
        else 'MME is within the recommended range.','
    description:
      if M
        then 'Total morphine milligram equivalent (MME) is ' + ToString(TotalMME) + '. Taper to less than 50.'
      else 'Total morphine milligram equivalent (MME) is ' + ToString(TotalMME) + '. This falls within the accepted range.'
  }

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NLM RXNAV-BASED TERMINOLOGY KNOWLEDGE
FREE TEXT SIG PARSING

• Close to 20% of opioid Rxs use free-text Sigs (>10,000 unique patterns). E.g.:
  - 1-2 tablets q 3 hours as needed for pain up to a max of 12/day. Not valid without seal. May fill 3 days before use date. Use dates: X/XX-X/XX/2017.

• Traditional analytics tools cannot evaluate free-text Sigs
• Parsing algorithms developed to enable computation on ~80% of Sigs
Patient’s average oral morphine equivalence (OME) is 87.33 mg/day. CDC recommends reassessing evidence of individual benefits and risks when increasing dosage to ≥ 50 OME/d.

Active Opioid Rx

[ New ] Oxycodeone Hydrochloride 5 mg Oral Tablet
> Sig: 5 mg Oral Every 8 hours as needed
  Click for Details

FENTANYL CITRATE 200 MCg BU LPOP
  *** May be expiring soon ***
> Sig: Place 1 each (200 mg) inside cheek every 2 hours as needed. Use prior to bowel movements, maximum 4 per day
  Click for Details
> Morphine equivalence: 130 mcg. For 1 lozenges, OME = 26 mg.
> Rx by Smith, John on 02/07/18. Disp 20 each, Refills 0.
> Start date: 02/06/18. End date (estimated): 02/11/18. Based on dispensation quantity and max daily dose in sig.
> Daily dose (ave): Fentanyl Oral Lozenge 20 dispense * 0.2 mg / 30d supply
(*assumed*) = 0.13 mg.
> Daily dose (max): Fentanyl Oral Lozenge 4 daily max per sig * 0.2 mg = 0.8 mg.

HYDROCODONE-ACETAMINOPHEN 10-325 MG PO TABLET
  *** Not adding OME for presumed redundant Rx with start dates of 02/06/18 and 04/06/18. ***
> Sig: Earliest Fill Date: 3/17/18. Take 1-1.5 tablets by mouth every 4 hours as needed for pain
  Click for Details

<table>
<thead>
<tr>
<th>Start Date</th>
<th>Ave. OME/day*</th>
<th>Max OME/day*</th>
</tr>
</thead>
<tbody>
<tr>
<td>02/06/18</td>
<td>17.33 mg</td>
<td>104 mg</td>
</tr>
<tr>
<td>03/06/18</td>
<td>40 mg</td>
<td>90 mg</td>
</tr>
</tbody>
</table>

Total

87.33 mg 224 mg

* Ave OME = qty dispensed / (days supply). 30d supply assumed unless otherwise noted in Sig or note to pharmacy.
* Max OME = max amount patient may take on a given day according to Sig, even if patient runs out of med early.

OME conversion table

CPG opioid Rx guideline
Source: CDC opioid Rx guideline -- recommendation #5
### High risk for opioid overdose - taper now.

Maximum morphine equivalent daily dose (MEDD) is 365 mg/day (PRN meds assumed to be taken at maximum allowed frequency). Taper to < 50.

<table>
<thead>
<tr>
<th>Active Opioid Rx</th>
<th>Max MEDD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxycodone Hydrochloride 5 MG Oral Capsule</td>
<td>45 mg</td>
</tr>
<tr>
<td>Fentanyl 0.1 MG/HR Transdermal System</td>
<td>240 mg</td>
</tr>
<tr>
<td>Buprenorphine 2 MG Sublingual Tablet</td>
<td>60 mg</td>
</tr>
<tr>
<td>Methadone Hydrochloride 10 MG Oral Tablet</td>
<td>20 mg</td>
</tr>
</tbody>
</table>

**Total:** 365 mg

- CDC opioid recommendation #5
- MME conversion table

Source: CDC
Innovation Week: FHIRworks

©2018 Epic Systems Corporation. Used with permission.
Patient's average oral morphine equivalence (OME) is **192.33 mg/day**.

**Daily Average OME (mg/day)**

For adults, CDC recommends reassessing evidence of individual benefits and risks when increasing dosage to $\geq 50$ OME/day, and avoid increasing dosage to $\geq 90$ OME/day or carefully justifying such a decision.

**Active Opioid RX**

- **New Oxycodone Hydrochloride 15 MG Oral Tablet**
- **Fentanyl Citrate 200 MCG Buccal Tablet**

*Verify taking; Rx may have expired*

Sig: Place 1 each (200 mcg) inside cheek every 2 hours as needed. Use prior to bowel movements, maximum 4 per day

Morphine equivalence: 130x. For 1 lozange, OME = 26 mg.

Rx by Smith, John on 02/07/18. Disp 20 each, Refills 0.

Start date: 02/07/18. End date (estimated): 02/12/18. Based on dispense quantity and max daily dose in sig.

Daily dose (avg): Fentanyl Oral Lozenge 20 dispense * 0.2 mg / 30d supply (assumed) = 0.13 mg.
Daily dose (max): Fentanyl Oral Lozenge 4 (daily max per sig) * 0.2 mg = 0.8 mg.
Outpatient Opioid Oral Morphine Equivalence (OME) Calculator

Patient’s average oral morphine equivalence (OME) is 57.33 mg/day

For adults, CDC recommends reassessing evidence of individual benefits and risks when increasing dosage to >= 50 OME/day.

Active Opioid Rx

FENTANYL CITRATE 200 MCG BU LPOP

- Verify taking, Rx may have expired

HYDROCODONE-ACETAMINOPHEN 10-325 MG PO TABLET

- Verify taking, Rx may have expired
- Not adding OME for presumed redundant Rxs with start dates of 02/07/18 and 03/07/18.

Total Average OME/Day

57.33 mg

*Avg OME = (city dispensed)/days supply. 30d supply assumed unless otherwise noted in Sig or note to pharmacy.
*Max OME (see details) = max amount patient may take on a given day according to Sig, even if patient runs out of med early

OME conversion table

CPG opioid Rx guideline

Source: CDC opioid Rx guideline – recommendation #5
Avoid co-prescribing opioid and benzodiazepine concurrently whenever possible.

- CPG opioid use guidelines
  Source: CDC opioid Rx guideline -- recommendation #11

Recommend use of immediate-release opioids when starting patients on opioids.

- CPG opioid use guidelines
  Source: CDC opioid Rx guideline -- recommendation #4

Consider offering naloxone. Risk factor(s) for opioid overdose: average OME >= 50 mg/day, concurrent use of benzodiazepine.

- CPG opioid use guidelines
  Source: CDC opioid Rx guideline -- recommendation #8
LESSONS LEARNED

• Bleeding-edge work: ordering-based CDS “Hooks” not yet standardized, EHR vendor implementations in process
  – Required use of CDS Hooks middleware and/or SMART on FHIR

• Complex CDS Hooks visual displays handled differently by different EHR vendors; requires further standardization

• Achieving desired end-user functionality requires hybrid of CDS Hooks services and local EHR CDS capabilities
  – E.g., snoozing, enabling 1-click order placement and cancellation, restricting service invocation to relevant contexts

• Despite challenges, evidence-based care supported by standards-based CDS finally appears to be within reach
FUTURE DIRECTIONS

• Standards-based encoding of remaining 6 CDC Prescribing Guideline recommendations as CDS Hooks services
• Pilot deployments and iterative enhancement
• Impact evaluation
• Facilitating enhancement and adoption of underlying standards
• Use of SMART on FHIR in addition to CDS Hooks for workflow integration
• Ultimate goal: widespread dissemination and impact
ACKNOWLEDGMENTS (PARTIAL LIST)

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• Scott Junkins, MD
• Wesley Sargent, EdD

Disclaimer: The findings and conclusions in this presentation are those of the presenter and do not necessarily represent the official position of CDC or of the organizations involved.
THANK YOU!

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AHRQ Resources for Opioid-related Clinical Decision Support

Edwin Lomotan, MD | Chief of Clinical Informatics
Agency for Healthcare Research and Quality

November 29, 2018 | ONC 2018 Annual Meeting
Advancing evidence into practice through CDS and making CDS more shareable, standards-based, and publicly-available

Four components:
1. Engaging a stakeholder community
2. Creating prototype infrastructure for sharing and developing CDS
3. Advancing CDS through demonstration and dissemination research
4. Evaluating the overall initiative
Taking a Broad View of CDS

• CDS “Five Rights”
  – CDS should deliver the *right information*, to the *right person*, in the *right format*, in the *right channel*, at the *right time* during work flow.

• CDS as an enabler and tool for quality improvement
  – Not just an app, widget, alert, or reminder
  – Not just for physicians at the point of care
  – Can represent the “actionable” side of quality measurement

Knowledge Translation into CDS

“Before starting, and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (greater than or equal to \([\geq 50\) morphine milligram equivalents \([MME]\)/day), or concurrent benzodiazepine use, are present.”
ARTIFACT REPRESENTATION

**Triggers**
- **Trigger Type:** Named event
- **Trigger Event:** clicks on link to the Pain Management Summary

**Inclusions**
- Age >=18 years
- OR Conditions associated with chronic pain (confirmed, active or recurring status, onset date, asserted date, abatement date)
- OR Opioid pain medication
  - Orders (date, active, completed, or stopped within past 180 days)
  - Statements (date, active, or completed within past 180 days)
- OR Adjuvant analgesic medication
  - Orders (date, active, completed, or stopped within past 180 days)
  - Statements (date, active, or completed within past 180 days)

**Exclusions**
- None
Level 3: Clinical Quality Language

- include CDS_Connect_Commons_for_FHIRv102 version '1.3.0' called C3F

- valueset "Conditions associated with chronic pain":
  - '2.16.840.1.113762.1.4.1032.37'

- define ConditionsAssociatedWithChronicPain:
  - C3F.Confirmed( C3F.ActiveOrRecurring(
    - [Condition: "Conditions associated with chronic pain"]
  )

- define HasConditionAssociatedWithChronicPain:
  - exists(ConditionsAssociatedWithChronicPain)
Level 4: Locally-executed Code and User Interface
AHRQ Pain Management Summary: Highlights

- Informed by 2016 CDC guideline
- Consolidates patient-specific information normally found on different tabs and screens into a single view
- Launched by clicking a link from the home screen within a patient record in the EHR
- Uses SMART on FHIR health IT standard for interoperability
- Piloted in a community health center that uses Epic
AHRQ Pain Management Summary or “Dashboard”
AHRQ Pain Management Summary: What’s Available

- Description of CDS, including all relevant metadata
- Technical files
  - Clinical Quality Language (CQL) code
- Reports
  - Implementation guidance
  - Pilot report, including enhancements made
  - Yearly project final report
- Open source on GitHub
  - SMART on FHIR app specifications and code
- Try it on SMART App Gallery

➢ Aims to give health care systems and CDS developers a “head start” with interoperable building blocks for this type of summary

➢ https://cds.ahrq.gov
CDS Connect: Opioid and Pain Management Resources

PATIENT-CENTERED OUTCOMES RESEARCH
Clinical Decision Support
Accelerating Evidence into Practice through CDS

Opioids and Pain Management
Optimal management of pain is a challenge for clinicians and patients. Safe and effective use...

Artifacts
Factors to Consider in Managing Chronic Pain: A Pain Management Summary
Data Summary
Publisher: The MITRE Corporation
2018
- Family Medicine, Family Medicine, Internal Medicine, Rheumatology, Physical Medicine and Rehabilitation

Recommendation #5 - Lowest Effective Dose
Event-Condition-Action (ECA) Rule
Publisher: Centers for Disease Control and Prevention
2017
- Family Medicine, Internal Medicine

Recommendation #8: Naloxone Consideration
Event-Condition-Action (ECA) Rule
Publisher: Centers for Disease Control and Prevention
2016
- Family Medicine, Internal Medicine

Recommendation #11: Concurrent Use of Opioids and Benzodiazepines
Event-Condition-Action (ECA) Rule
Publisher: Centers for Disease Control and Prevention
2018
- Family Medicine, Internal Medicine

Recommendation #6: Opioid Release Rate When Starting Opioid Therapy
Event-Condition-Action (ECA) Rule
Publisher: Centers for Disease Control and Prevention
2016
- Family Medicine, Internal Medicine

Recommendation #7: Opioid Therapy Risk Assessment
Event-Condition-Action (ECA) Rule
Publisher: Centers for Disease Control and Prevention
2018
- Family Medicine, Internal Medicine

Recommendation #10: Urine Drug Testing
Event-Condition-Action (ECA) Rule
Publisher: Centers for Disease Control and Prevention
2017
- Family Medicine, Internal Medicine
Thank you!

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EHR Association
Maximizing the Role of Health IT in the Fight Against the Opioid Crisis
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VP, Health Policy & Industry Affairs, Allscripts
Chair, EHRA Opioid Crisis Task Force
Chair, EHRA Public Policy Workgroup

Opioid Crisis Task Force - Clinical Impact Subgroup Leadership
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Senior Analyst, MEDITECH Inc.
Co-chair, EHRA Opioid Crisis Task Force, Clinical Impact Subgroup

Alan Staples
Senior Solution Strategist, Cerner Corporation
Co-chair, EHRA Opioid Crisis Task Force, Clinical Impact Subgroup
We are EHR developers who work with hospitals and providers that represent the majority of EHR users in the US. We have lots of common expertise on EHR policy, standards, and best practices.
Opioid Crisis Task Force began work in early 2018
Examines how to best utilize electronic health record systems' data and capabilities as a tool in nationwide efforts to fight opioid crisis
Volunteer participants from member companies include pharmacists, doctors, nurses, and technical experts
Focused on the unique contributions that EHRs have to offer federal and state policymakers, public health officials, providers and patients
The Task Force has designated subgroups focused on three areas:
- **Policy** - Provide policy and technical input to lawmakers, regulators and other stakeholders
- **Clinician Impact** - Focus on the intersection of clinicians and technology, maximizing tools and methods for reducing provider burden and optimizing workflow
- **Standards and Technology** - Recommend solutions to improve system-to-system and state-to-state information sharing through consistent, standards-based approaches
CDC Opioid Guidelines: Implementation Guide for EHRs
Goals for clinical practice in the opioid crisis are not as simple as reducing the rate of prescribing opioid therapy.

Thankfully, a wealth of clinical practice guidelines have been validated and published, e.g.

- Advisory Board - Confronting the Opioid Epidemic (April 2018)
- CDC - Guideline for Prescribing Opioids for Chronic Pain - United States, 2016
- Improving Opioid Care (AHRQ, CDC, WA DOH) - Six Building Blocks: A Team-Based Approach to Improving Opioid Management in Primary Care (2018)
- Intermountain Healthcare - Assessment and Management of Opioid Use in Pregnancy (2014)
- VA/DoD - Clinical Practice Guideline: Management of Opioid Therapy (OT) for Chronic Pain (2017)
● Problem:
  ○ Limited adoption and adherence to published clinical practice guidelines
  ○ Delay in getting the results of research to the bedside: 17 years
  ○ Low accessibility in the workflow, such as diagrams, websites, and pocket reference cards

● Solution: clinical decision support bringing best practice guidance to the clinical and EHR workflows
  ○ EHRs and other health IT are a delivery mechanism; content and clinical guidance comes from a variety of resources and can be constantly updated
The CDC published the **Guideline for Prescribing Opioids for Chronic Pain**, which provides twelve recommendation statements for appropriate use of opioids within a larger pain management strategy.
EHRA published today an implementation guide to help hospitals, physician practices, other care settings and the EHR developer community operationalize the CDC’s recommendations.
Goals

- Provide a CDS implementation model that is “low lift” - approachable by organizations of all sizes, IT capabilities; can be done iteratively
  - Industry thirst for even basic guidance
- Improve quality, safety, and patient experience in pain management
- Reduce unwarranted and dangerous variance in care
- Support risk/benefit decision making when using opioid medications - help clinicians make a more informed decision
- Develop the Implementation Guide with input from clinicians and medical organizations
Implementation Guide

- Designed to assist the information technology team of healthcare provider organizations, as well as software developers supporting them
- Increase adoption of CDC’s Guidelines
- Allow for more rapid design and implementation of clinical decision support by clinicians who treat and manage pain
- Not all recommendations will be equally applicable to every clinical environment

<table>
<thead>
<tr>
<th>Target Healthcare Provider Organizations</th>
<th>Exclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulatory specialty clinic</td>
<td>Behavioral Health</td>
</tr>
<tr>
<td>Ambulatory surgery center</td>
<td>Long-term care</td>
</tr>
<tr>
<td>Federally qualified health center</td>
<td>Retail pharmacy</td>
</tr>
<tr>
<td>Home health</td>
<td>Palliative care</td>
</tr>
<tr>
<td>Hospital</td>
<td>Cancer treatment centers</td>
</tr>
<tr>
<td>Hospital outpatient surgery center</td>
<td></td>
</tr>
<tr>
<td>Primary care</td>
<td></td>
</tr>
</tbody>
</table>

Note: This is not a comprehensive list of stakeholders and roles. Include all applicable stakeholders in your organization’s opioid stewardship initiatives.
1. Opioids are not a first line therapy

2. Establish goals for pain and function

3. Discuss risks and benefits

4. Start with immediate release opioids

5. Use the lowest effective dose (measured in MMEs)

6.Prescribe short durations for acute pain

7. Evaluate benefits and harms frequently

8. Use strategies to mitigate risks

9. Review PDMP data

10. Use urine drug testing

11. Avoid concurrent opioid and benzodiazepine prescribing

12. Offer treatment for opioid use disorder
EHR Technology Solutions

- Electronic Prescribing of Controlled Substances (EPCS)
- Prescription Drug Monitoring Program (PDMPs) Integration
- Risk Assessments and Screening Tools for Drug Abuse
- Order Sets for Pain Management
- Clinical Decision Support
- Pain Agreements (aka Pain Contracts)
- Patient Education
- Physician Documentation
- Population Health
- Reporting on Outcomes
- Predictive Analytics
Guideline 1: Opioids are not a first line therapy

How Technology Can Help: EHRs provide the platform for order entry and treatment selection, so there are natural opportunities to guide clinicians towards the selection of nonpharmacologic therapies as a first line approach to pain management.
Guideline 1: Opioids are not a first line therapy

What You Can Do:

- Review specific non-opioid treatments and alternative pain management strategies recommended by the CDC and other evidence-based sources.
- Adopt advisory text in order sets that remind providers to begin with non-pharmacologic therapy.
- Utilize passive clinical decision support in order sets by placing opioid orders below other analgesics and NSAIDS, or nested under drop down headers.
- Utilize active clinical decision support at the point of ordering opioids to check if non-pharmacologic therapy has been tried yet, and suggest non-pharmacologic orders if applicable.
Guideline 7: Evaluate benefits and harms frequently

How Technology Can Help: EHRs can prompt physicians to consider the benefits and harms of opioid therapy at the point of ordering opioids. In addition, population health solutions such as dashboards or registries can monitor patients currently on opioid therapy and can make sure patients aren’t falling through the cracks in terms of scheduled follow-up appointments and urine screenings.
Guideline 7: Evaluate benefits and harms frequently

What You Can Do:

● Adopt advisory text in order sets that remind providers to evaluate the benefits and harms of extended use of opioid therapy.

● Make the CDC Prescribing Checklist available to providers and encourage them to use it when renewing or continuing opioid therapy.

● Develop population health tools such as dashboards or registries to monitor patients currently on opioid therapy and ensure that patients are getting follow-up visits and screenings at regular intervals.
EHRA encourages organizations to work with their EHR developers to discuss the implementation approaches and strategies contained in the implementation guide. Some EHRs may not currently be able to implement every recommendation in this guide; organizations may help their developers prioritize desired new capabilities in future updates.

Implementation Guide **available for download** on the EHR Association Website as of today!
For more information on the EHR Association or the Opioid Crisis Task Force, please contact Sarah Willis-Garcia at swillis@ehra.org or (312) 915-9518.
Thank you!

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