



Tools to Combat the Opioid Epidemic

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CarePATH Healthy Planet and Ambulatory Application
Coordinator

himss

CENTRAL & SOUTHERN OHIO *Chapter*

2018 HIMSS Davies Enterprise Award Recipient

Leveraged the value of health information and technology aimed at improving opioid prescribing practices to combat the opioid epidemic.

- Implemented provider-facing EMR changes.
- Developed an opioid analytics platform built on a tabular cube that permits evaluation of opioid prescribing behavior at the order, provider, department, specialty, market, and enterprise levels.
- Employed clinical decision support systems for prescribing opioids.



BON SECOURS MERCY HEALTH

ONE OF THE 5 LARGEST
Catholic health care systems in the US,
the LARGEST private provider in Ireland



OVER **1,000** SITES OF CARE  IN THE US AND
IN IRELAND



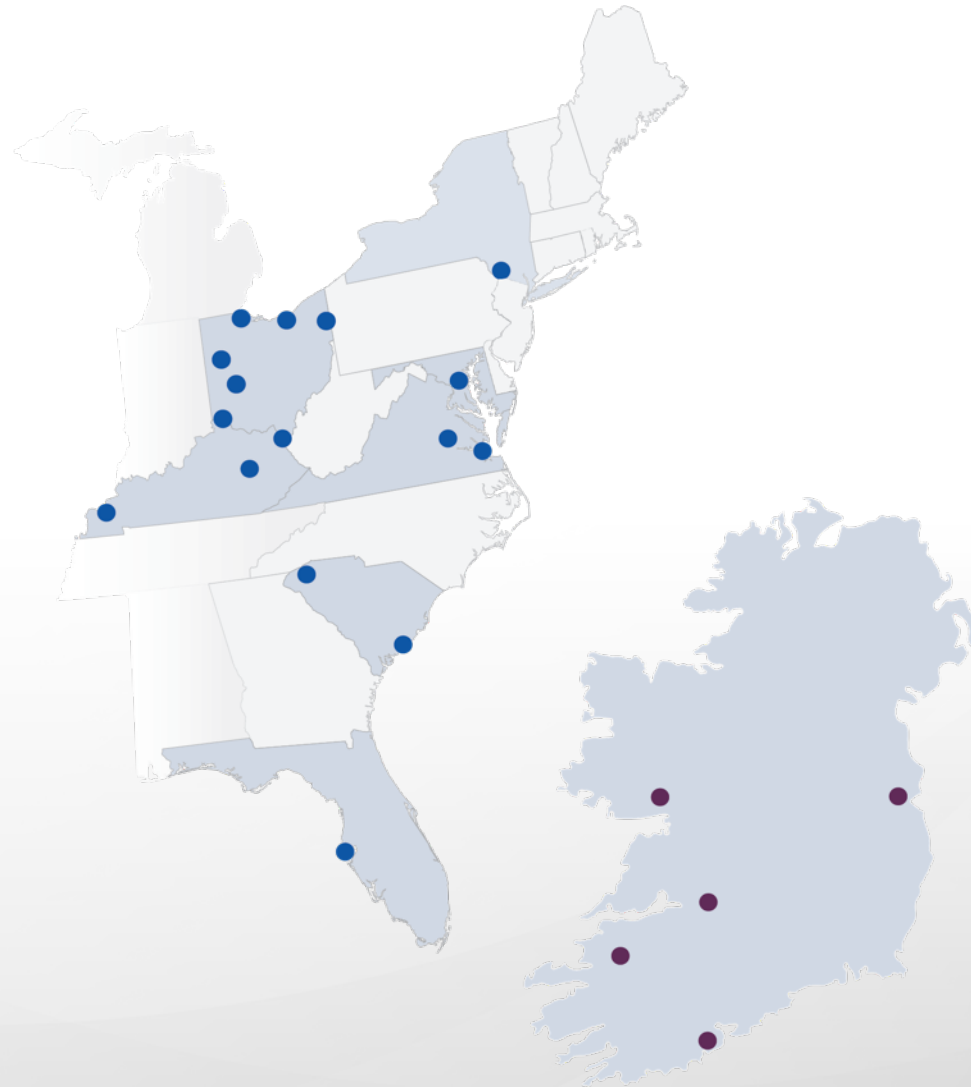
OVER **\$8 BILLION**
in net operating revenue

NEARLY **\$2 MILLION** A DAY
IN COMMUNITY BENEFITS



48 HOSPITALS

2,100 PHYSICIANS IN THE US
450 CONSULTANTS IN IRELAND
60,000 TOTAL ASSOCIATES



Agenda

- PDMP Integration and working within Board of Pharmacy regulations
- Strategies to Decrease Prescribing Opioids
- Strategies to Decrease Inpatient Opioid Use



Operating within Board of Pharmacy Regulations



Board of Pharmacy Regulations

Kentucky

- HB 333 limits the prescription of Schedule II drugs to a three-day supply if they are intended to treat pain as an acute medical condition. Unless otherwise documented.
- House Bill 1 (HB1) expanded the Kentucky All Schedule Prescription Electronic Reporting (KASPER) system, the state's prescription monitoring system, by requiring all prescription providers of controlled substances to register.

Ohio

- Providers must view OARRS report prior to prescribing a medication.
- Providers must view PDMP data from any bordering state to the county the department is located within.
- Providers must mark within the EMR that the report was viewed.
- No more than seven days of opioids can be prescribed for adults
- No more than five days of opioids can be prescribed for minors and only after the written consent of the parent or guardian is obtained.
- Health Care Providers may prescribe opioids in excess of the day supply limits only if they provide a specific reason in the patient's medical record.
- Except as provided for in the rules, the total morphine equivalent dose (MED) of a prescription for acute pain cannot exceed an average of 30 MED per day.
- The new rules do not apply to opioids prescribed for cancer, palliative care, end-of-life/hospice care or medication-assisted treatment for addiction.
- The rules apply to the first opioid analgesic prescription for the treatment of an episode of acute pain.

Ohio State Board of Pharmacy Regulations

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- ✓ Health care providers may prescribe opioids in excess of the day supply limits only if they provide a specific reason in the patient's medical record.
- ✓ Except as provided for in the rules, the total morphine equivalent daily dose (MEDD) of a prescription for acute pain cannot exceed an average of 30 MEDD.
- ✓ The new rules do not apply to opioids prescribed for cancer, palliative care, end-of-life/hospice care or medication-assisted treatment for addiction.
- ✓ The rules apply to the first opioid analgesic prescription for the treatment of an episode of acute pain.

Terminology

PDMP: Prescription Drug Monitoring Program

SSO: Single Sign On

NCPDP: National Council for Prescription Drug Programs – protocol similar to HL7

Appriss: vendor that provides on demand query access to controlled substance data that is provided from each state's board of pharmacy

NarxCare: Report display from Appriss

CarePATH: Mercy Health's Epic branding

PDMP Section – Prescribing Providers

PDMP Monitoring



1

[Click to view Prescription Monitoring Report \(PDMP data from OH, KY, IN, WV, MI, PA\)](#)

Last PDMP Mark as Reviewed:

Review User	Review Instant	Review Result
FAMILY MEDICINE, PHYSICIAN	9/17/2019 9:07 AM	Reviewed PDMP [1]

2

3

[Click to Document Controlled Substance Monitoring](#)

Last Controlled Substance Monitoring Documentation

Office Visit from 8/1/2019 in MMA Anderson Family Practice

Periodic Controlled Substance Monitoring Possible medication side effects, risk of tolerance/dependence & alternative treatments discussed. filed at 09/17/2019 0907

Acute Pain Prescriptions Prescription exceeds daily limit for a specific reason. See comments or note., Not required given exclusionary diagnoses..., Severe pain not adequately treated with lower dose. filed at 09/17/2019 0907

4

5

Urine Drug Screenings (1 yr)

DRUG SCREEN MULTI URINE

Collected: 9/17/2019 (Final result)

[Complete Results](#)

6

Patient-Level Medication Contract and Consent for Opioid Use Scans:

There are no patient-level medication contract and consent for opioid use scans.

Encounter-Level Medication Contract and Consent for Opioid Use Scans:

[Document on 9/17/2019 9:08 AM by Physician Family Medicine, MD: Consent](#)

7

Print Forms (OH requirement: consent if MEDD 50-79; contract if MEDD >=80)

Report ID	Report Name	Print
21070605	Print Opioid Consent Form	Print
210700112	Print Blank Med Contract (English)	Print
210700121	Print Blank Med Contract (Spanish)	Print
210700302	Print Blank Minor Opioid Consent Form	Print
21070699	Print Blank Medication Assisted Treatment Program Contract	Print

8

eKASPER (KENTUCKY)

[Link to Website](#)

OARRS (OHIO)

[Link to Website](#)

PDMP Section – Prescribing Providers

PDMP

Chart Review
Care Everywh...
Review Flows...
Results Review
Synopsis
History
Allergies
Problem List
Medications
Immunizations
Demographics
Letters
Education
Flowsheets
Enter/Edit Res...
Visit Navigator
PDMP

Betty Testpatient, 49F Powered by NarxCare®

Narx Report Resources

Date: 09/17/2019

+ Betty Testpatient

- Risk Indicators

NARX SCORES			OVERDOSE RISK SCORE	ADDITIONAL RISK INDICATORS (2)
Narcotic	Sedative	Stimulant		
641	832	000	950 (Range 000-999)	<ul style="list-style-type: none"> >= 5 opioid or sedative providers in any year in the last 2 years >= 4 opioid or sedative dispensing pharmacies in any 90 day period in the last 2 years
Explanation and Guidance			Explanation and Guidance	Explanation and Guidance

This NarxCare report is based on search criteria supplied and the data entered by the dispensing pharmacy. For more information about any prescription, please contact the dispensing pharmacy or the prescriber. NarxCare scores and reports are intended to aid, not replace, medical decision making. None of the information presented should be used as sole justification for providing or refusing to provide medications. The information on this report is not warranted as accurate or complete.

- Graphs

RX GRAPH ? Narcotic Sedative Stimulant Other

All Prescribers

Prescribers	Narcotic	Sedative	Stimulant	Other
10 -				
9 -				

Mark as Reviewed and Close Mark as Unable to Review and Close Close

Last reviewed by You on 9/17/2019 at 9:07 AM

PDMP Monitoring

Click to view Prescription Monitoring

Last PDMP Mark as Reviewed

Review User	Review Instant	Review
FAMILY MEDICINE, PHYSICIAN	9/17/2019 9:07 AM	Review

Click to Document Controlled Substance Monitoring

Last Controlled Substance Monitoring Documentation

Documentation Type	Details
Periodic Controlled Substance Monitoring	Office Visit from 8/1/2019 in MMA... Possible medication side effects, risk 09/17/2019 0907
Acute Pain Prescriptions	Prescription exceeds daily limit for a diagnoses... Severe pain not adequ

Urine Drug Screenings (1 yr)

DRUG SCREEN MULTI URINE

Complete Results

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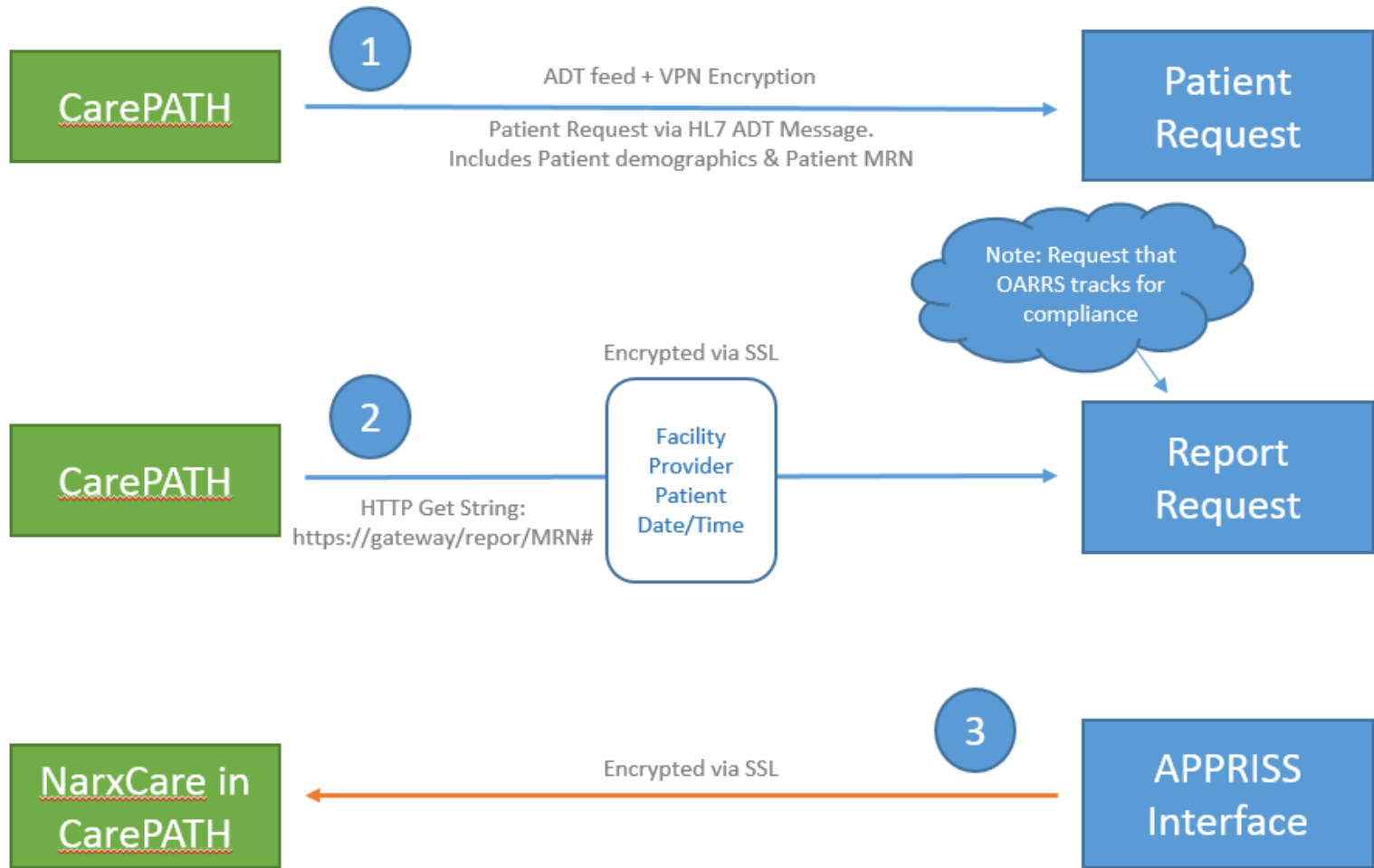
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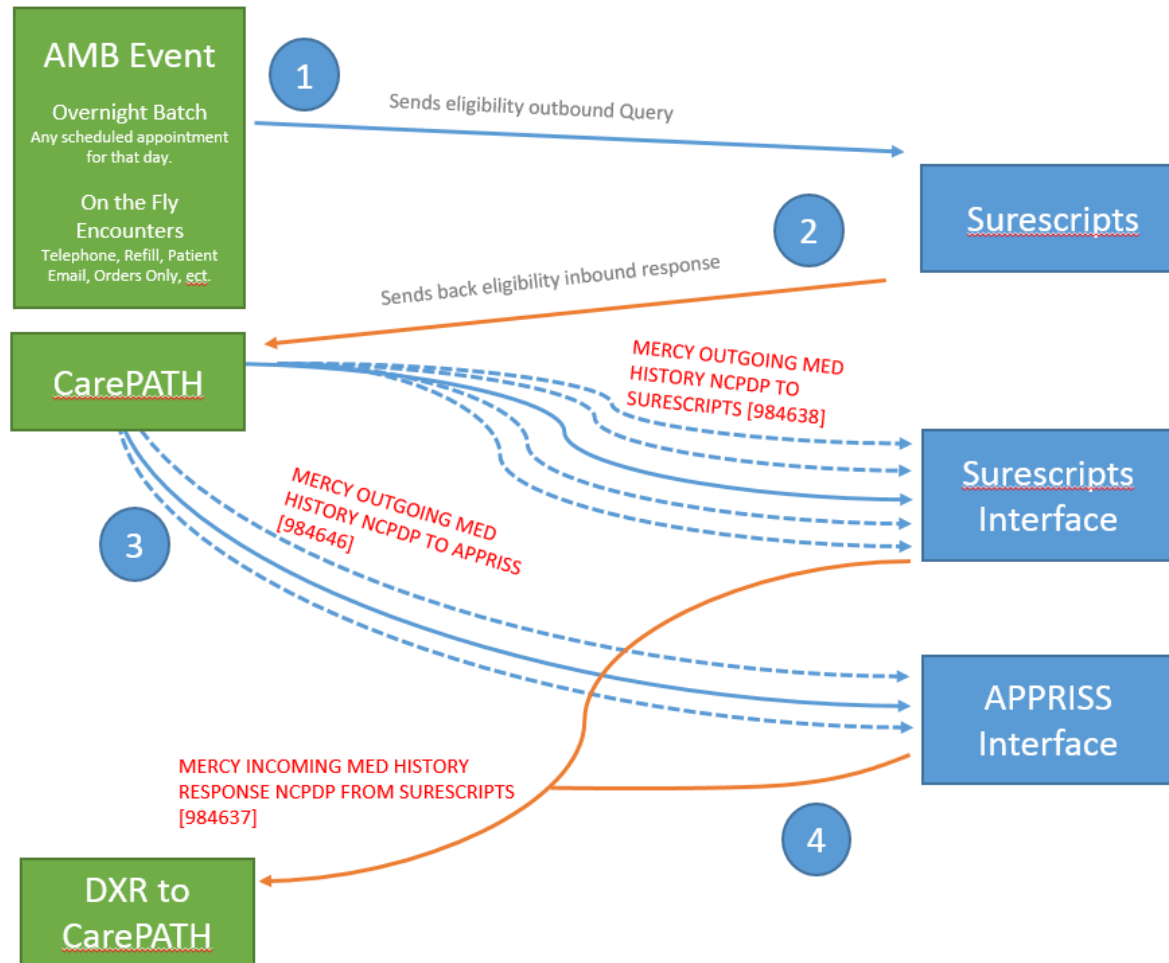
eKASPER (KENTUCKY) Link to Website

OARRS (OHIO) Link to Website

PDMP Integration SSO



PDMP Integration NCPDP



PDMP Integration Troubleshooting

PDMP

Tutorials: [Overview](#) | [NarxScores](#) | [Overdose Risk Score](#) | [Lorazepam Milligram Equivalents](#) [Contact Appriss Support](#)

Based on the patient details submitted, your state PMP could not identify a unique patient. Please manually search for the patient in your state PMP website.

Betty Testpatient, 49F Powered by NarxCare[®]

[Narx Report](#) [Resources](#)

<https://gateway-prep.pmp.appriss.com/?data=HBZGrYmpCwFW3QXVcx7nA69S5>

Sorry a report could not be created.

Error Response:

Invalid Parameters:

2 errors prohibited this request from being made.

- **facilityname:** Can't be blank
- **base:** Expected either facilitydea or facilitynpi but both where missing.


PDMP Section – Prescribing Providers

PDMP Monitoring

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eKASPER (KENTUCKY) [Link to Website](#)

OARRS (OHIO) [Link to Website](#)

Periodic Controlled Substance Monitoring

- Possible medication side effects, risk of tolerance/dependence & alternative treatments discussed.
- No signs of potential drug abuse or diversion identified.
- Potential drug abuse or diversion identified, see note documentation.
- Assessed functional status.
- Obtaining appropriate analgesic effect of treatment.
- Random urine drug screen sent today.

Acute Pain

Required if days dispensed >7 (>5 if age <18 years) or MEDD >30

- Prescription exceeds daily limit for a specific reason. See comments or note.
- Not required given exclusionary diagnoses...
- Severe pain not adequately treated with lower dose.

Chronic Pain

Needed if MEDD >= 50

- Re-evaluated the status of the patient's underlying condition causing pain.
- Considered consultation with a specialist.
- Obtained or confirmed "Consent for Opioid Use" on file.

Needed if MEDD >= 80

- Consulted with a specialist.
- Obtained or confirmed "Medication Contract" on file.
- Co-prescribed Naloxone.
- Naloxone script offered, but declined by patient.

Needed if MEDD > 120

- Engaged a pain medicine specialist as a prescriber or consultant.
- Obtained or confirmed "Medication Contract" on file.
- Co-prescribed Naloxone.
- Naloxone script offered, but declined by patient.

To pull this documentation into a note, use the SmartPhrase .CONTSUBSDOC or .CSM

PDMP Section – Non-Prescribing Users/Staff

PDMP Monitoring (READ ONLY)



2

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OARRS (OHIO)

[Link to Website](#)

PDMP Chart Reminders

Sign Order BPAs for Acute Pain Patients

Follow Up Actions:

1. Re-evaluate/look for misuse
2. Document why pain limits are being exceeded

BestPractice Advisory - Testpatient, Steven

For acute pain, limit single orders to less than or equal to 30 MEDD PER DAY

If continuing to place this order, document why you are **exceeding acute pain limits** (hyperlink below) or document that this prescription is for the treatment of **chronic pain** (hyperlink below).

① **For patient safety and guideline adherence, complete the following actions:**

1. Reevaluate the order to look for misuse.
2. Document acute pain prescription exceptions. OR If prescription is for chronic pain, document **1** chronic pain checkpoints using the hyperlink below.

Signing this order will affect the patient's Morphine Equivalent Daily Dose (MEDD). Review the information below to ensure opioid dosing will remain within appropriate limits.

Cumulative MEDD (30 mg max recommended)	
AFTER signing: 45 mg !	Before signing: 0 mg

UNSIGNED OPIOID ORDERS

oxyCODONE-acetaminophen (PERCOCET) 5 MG per tablet	2	MEDD 45 mg !
Take 1 tablet by mouth every 6 hours as needed for pain for up to 28 days. Intended supply: 28 days., Disp-112 tablet, R-0		(30 mg max recommended)
Normal, Maximum MEDD: 45 mg MEDD for this order		

[Document Acute Pain Exceptions](#)

[Document Chronic Pain Checkpoints](#)

Calculated supply is greater than the **maximum allowed total days supply of 7** for patients above age 18 located in Ohio.

① **To stay compliant with the Board of Pharmacy complete the following actions:**

1. Reevaluate the order to look for misuse.
2. Document chronic pain checkpoints or the reason for exceeding acute limits using the hyperlinks below. **1**

The following medications exceeds the maximum recommended days supply of 7 days (including all refills).

UNSIGNED ORDERS EXCEEDING MAX RECOMMENDED DAYS SUPPLY

oxyCODONE-acetaminophen (PERCOCET) 5 MG per tablet	2	DAYS SUPPLY 28 days
Take 1 tablet by mouth every 6 hours as needed for pain for up to 28 days. Intended supply: 28 days., Disp-112 tablet, R-0		
Normal, Maximum MEDD: 45 mg MEDD for this order		

[Document Acute Pain Exceptions](#)

[Document Chronic Pain Checkpoints](#)

✓ Accept Cancel

PDMP Chart Reminders Sign Order BPAs for Chronic Pain Patients

Follow Up Actions:

1. Re-evaluate/look for misuse
2. Document why pain limits are being exceeded
3. File an opioid consent form
4. Place a referral to pain management
5. Consider Naloxone RX

BestPractice Advisory - Zztest, Laura "Larry"

This is a **chronic opioid patient** whose **MEDD score is greater than 120**.

For patient safety and guideline adherence, complete the following actions;

1. Reevaluate the order to look for misuse.
2. Document chronic pain checkpoints using the hyperlink below.
3. A) File a medication contract. The form will default to print upon clicking accept.
B) Confirm an existing medication contract is on file and select "Ignore" below.
4. Place a referral for pain management or confirm that pain specialist is already actively involved.
5. Consider prescribing Naloxone. Naloxone is defaulted to be co-prescribed upon clicking accept. Select "do not order" if you would not like to prescribe.

Signing this order will affect the patient's Morphine Equivalent Daily Dose (MEDD). Review the information below to ensure opioid dosing will remain within appropriate limits.

Cumulative MEDD (30 mg max recommended)
AFTER signing: **135 mg !** Before signing: 0 mg

UNSIGNED OPIOID ORDERS

[oxyCODONE-acetaminophen \(PERCOCEP\) 7.5-325 MG per tablet](#)
Take 1 tablet by mouth every 2 hours for 28 days. Intended supply: 28 days.,
Disp-112 tablet, R-0
Normal, Maximum MEDD: 135 mg MEDD for this order

MEDD
135 mg !
(30 mg max recommended)

Pain Agreement Status

Medication Contract	Consent for Opioid Use
Filed	Filed

medication contract (send to default printer)

[Document Chronic Pain Checkpoints](#)

PDMP Chart Reminders

Medication Safety Alert

Follow Up Actions:

1. Print Minor Consent Form and Scan into the chart unless reason otherwise documented

BestPractice Advisory - Mouse, Minnie J "TEST ACCOUNT"

Medication Safety Alert (1)

To minimize excessive pediatric opioid prescribing & possible addiction (and for Ohio required by HB 314) obtain written consent from minor's parent, guardian or other authorizing adult. Consider removing and replacing opioid order. Click accept to print off required consent; otherwise, click one of the acknowledge reasons. Alternatively complete consent within letter activity & click on acknowledge reason: "consent completed previously". Scan completed & signed consent. For Ohio, strongly consider giving signed copy to pt to give to pharmacy.

Remove the following orders?

oxyCODONE-acetaminophen (PERCOET) 5-325 MG per tablet
Take 1 tablet by mouth every 6 hours as needed for Pain for up to 5 days. . Take lowest dose possible to manage pain, Disp-20 tablet, R-0 Normal, Maximum MEDD: 30 mg MEDD for this order

Apply the following?

Print minor consent form (send to default printer)

[Order Entry](#)

Acknowledge Reason

PDMP Chart Reminders – Schedule Columns

FAMILY MEDICINE, PHYSICIAN										To
	Status ▲	Time	Patient	Notes	Visit Type	Provider	MyChart Status	PDMP Last Marked as Reviewed	Last Abstracted	
	Scheduled	8:30 AM			Physical		Active		9/12/2019	
	Scheduled	8:30 AM			Office Visit		Active			
	Scheduled	8:45 AM			Office Visit		Active		1/18/2011	
	Scheduled	9:00 AM			Office Visit		Active		8/6/2010	
	Scheduled	9:00 AM			Medicare Annual Well Visit		Active	6/14/2019 11:57 AM	9/25/2018	
	Scheduled	9:00 AM			New Patient		Active		12/12/2017	
	Scheduled	9:15 AM			Office Visit		Active		5/29/2010	
	Scheduled	9:15 AM			Office Visit		Active	6/17/2019 10:43 AM	10/4/2012	
	Scheduled	9:30 AM			Office Visit		Active		3/25/2011	
	Scheduled	9:30 AM			Office Visit		Inactive		1/12/2017	
	Scheduled	9:30 AM			Office Visit		Code Exp		7/23/2019	
	Scheduled	9:45 AM			Physical		Active	9/6/2019 1:31 PM		
	Scheduled	10:00 AM			Office Visit		Active			

PDMP Chart Reminders – InBasket Messages

The screenshot displays a patient's InBasket chart with a navigation bar at the top containing tabs for Message, More Info, PDMP, Visit/Patient Info, Meds/Problems, Vitals/Labs, My Last Note, Help, and Msg Info. A blue arrow points to the PDMP tab. The patient's name is Candy Test "Cane", a 41-year-old female born 6/15/1978. Her PDMP status is "Reviewed 9/5/2019". A red box highlights the PDMP section, with a blue arrow pointing to it. The "Requested Prescriptions" section shows a prescription for diltiazem (CARDIZEM) 30 MG tablet, with a "Calcium-Channel Blockers Protocol Failed" warning. The protocol failure is due to a missing visit with an authorizing provider in the past 9 months. Two other criteria are met: a pulse reading greater than 50 in the past year and no active pregnancy in the past 12 months. The "Approved Prescriptions" section shows the same diltiazem prescription. The left sidebar contains patient demographics, allergies (none), and health maintenance (due).

Message More Info **PDMP** Visit/Patient Info Meds/Problems Vitals/Labs My Last Note Help Msg Info ✓ 1 Approve: Call to schedule appointment More

Candy Test "Cane"
Female, 41 y.o., 6/15/1978
MRN: <E6156406>
Weight: 165 lb (74.8 kg)
Phone: 330-513-1351 (H)
PCP: Jacqueline Ward, MD
Next Appt: None

PDMP: Reviewed 9/5/2019
Pain Agreement: **On File (Mercy Health Youngstown Primary Care)**

ALLERGIES
No Known Allergies

Health Maintenance: **Due**

Coverage: None
Pt Comm Pref: None

Requested Prescriptions

Rx diltiazem (CARDIZEM) 30 MG tablet
Sig: Take 1 tablet by mouth 4 times daily
Disp: 120 tablet Refills: 1
Start: 5/13/2019
Class: Normal
Non-formulary
Last ordered: 1 year ago by Historical Provider, MD

Calcium-Channel Blockers Protocol Failed 3/20 9:24 AM

- ✗ Visit with authorizing provider in past 9 months or upcoming 90 days
- ✓ Last Pulse reading greater than 50 recorded within past year
- ✓ No positive pregnancy test or active pregnancy on record in past 12 months

[Protocol Details](#)

To be filled at: None

Approved Prescriptions

Rx diltiazem (CARDIZEM) 30 MG tablet
Sig: Take 30 mg by mouth 4 times daily

PDMP and Opioid Monitoring Training

- Multiple e-news communications
- 1 captivate workflow video for Ohio providers
- 1 captivate workflow video for Kentucky providers
- 1 tip sheet for Ohio provider enhancements
- 1 tip sheet for Kentucky workflows
- 1 reporting workbench tip sheet for monitoring chronic pain patients
- 1 schedule column tip sheet

Strategies to Decrease Opioid Use

State Level Responses to the Opioid Crisis


- **August 31, 2017 (Ohio)**
 - “7/5/30”
 - No more than **7** days of opioids can be prescribed for adults and **5** days of opioids can be prescribed for minors & only after the written consent of parent/guardian
 - The total MEDD of a prescription for acute pain cannot exceed **30**
 - Rules apply to the first opioid analgesic prescription for the treatment of an episode of acute pain
- **November 15, 2017 (Kentucky)**
 - Limit of 3 day supply on C-II for acute pain
- **December 29, 2017 (Ohio)**
 - Require diagnosis association on all opioid prescriptions
 - Require indication of days supply on all controlled substance and gabapentin prescriptions
- **June 1, 2018 (Ohio)**
 - Require diagnosis association on all controlled substances














Our Response to the Opioid Crisis

- As national guidelines and state laws change, new EMR tools are built
- Physician leadership engagement key for workflows & supporting tools
- IT leadership integral to providing access to controlled substance data at the right time in clinical workflows with minimal effort from staff
- Training critical for training new workflows and tools available within EMR
- Clinical best practice is supported by:
 - Integrating compliance with Ohio laws with current provider workflows
 - Providers are given the best tools to reduce opioid dependency

Preference List Customization

- Creation via import of opioid specific facility preference list containing fully configured compliant orders for selected common acute opioids

After visit Medications 

	Co: Name	Dose	Route	Frequency
	1... HYDROcodone-acetaminophen (LORTAB) 7.5-325 #28# Q6H PRN 30 MEDD 7 DAY	1 tablet	Oral	EVERY 6 HOURS PRN
	2... HYDROcodone-acetaminophen (NORCO) 5-325 #12# Q6H PRN 20 MEDD 3 DAY	1 tablet	Oral	EVERY 6 HOURS PRN
	2... HYDROcodone-acetaminophen (NORCO) 5-325 #18# Q4H PRN 30 MEDD 3 DAY	1 tablet	Oral	EVERY 4 HOURS PRN
	6... oxyCODONE (ROXICODONE) 5mg #12# Q6H PRN 30 MEDD 3 DAY	5 mg	Oral	EVERY 6 HOURS PRN
	6... oxyCODONE (ROXICODONE) 5mg #20# Q6H PRN 30 MEDD 5 DAY	5 mg	Oral	EVERY 6 HOURS PRN
	6... oxyCODONE (ROXICODONE) 5mg #28# Q6H PRN 30 MEDD 7 DAY	5 mg	Oral	EVERY 6 HOURS PRN
	1... oxyCODONE-acetaminophen (ENDOCET) 5-325 #12# Q6H PRN 30 MEDD 3 DAY	1 tablet	Oral	EVERY 6 HOURS PRN
	traMADol (ULTRAM) 50mg #12# Q6H PRN 20 MEDD 3 DAY			
	1... traMADol (ULTRAM) 50mg #12# Q6H PRN 20 MEDD 3 DAY	50 mg	Oral	EVERY 6 HOURS PRN
	1... traMADol (ULTRAM) 50mg #18# Q4H PRN 30 MEDD 3 DAY	50 mg	Oral	EVERY 4 HOURS PRN
	1... traMADol (ULTRAM) 50mg #20# Q6H PRN 20 MEDD 5 DAY	50 mg	Oral	EVERY 6 HOURS PRN
	1... traMADol (ULTRAM) 50mg #28# Q6H PRN 20 MEDD 7 DAY	50 mg	Oral	EVERY 6 HOURS PRN
	1... traMADol (ULTRAM) 50mg #30# Q4H PRN 30 MEDD 5 DAY	50 mg	Oral	EVERY 4 HOURS PRN
	1... traMADol (ULTRAM) 50mg #42# Q4H PRN 30 MEDD 7 DAY	50 mg	Oral	EVERY 4 HOURS PRN

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Preference List Customization

- Providers can use either fully configured orders or select a less configured choice

norco

🔍

📄 Panels (No results found)

📄 After visit Medications ⤴

	Col Name	Dose	Route	Frequency
🏠 ▲	2... HYDROcodone-acetaminophen (NORCO) 5-325 Q4H PRN #18# 30 MEDD 3 DAY	1 tablet	Oral	EVERY 4 HOURS PRN
🏠	2... HYDROcodone-acetaminophen (NORCO) 5-325 Q4H PRN #30# 30 MEDD 5 DAY	1 tablet	Oral	EVERY 4 HOURS PRN
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🏠	2... HYDROcodone-acetaminophen (NORCO) 5-325 Q6H PRN #28# 20 MEDD 7 DAY	1 tablet	Oral	EVERY 6 HOURS PRN
🏠	2... NORCO 5-325 MG PO TABS	1 tablet	Oral	EVERY 6 HOURS PRN
🏠	2... NORCO 7.5-325 MG PO TABS	1 tablet	Oral	EVERY 6 HOURS PRN
🏠	1... NORCO 10-325 MG PO TABS	1 tablet	Oral	EVERY 6 HOURS PRN

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In-Line MEDD Calculation

- All opioid containing medications possess a visual indicator of the calculated MEDD within the order composer
- Dynamically calculates based on order dose and frequency
 - No current support for additional alerts, highlighting, etc
 - Does not calculate with free-text sigs

Product: **OXYCODONE-ACETAMINOPHEN 5-325 MG PO TABS**

Sig Method: **Specify Dose, Route, Frequency** Use Free Text

Dose: 2 tablet 1 tablet **2 tablet**

Prescribed Dose: 2 tablet
Prescribed Amount: 2 tablet
Maximum MEDD: 60 mg morphine equivalent daily dose

Route: Oral **Oral**

Frequency: **EVERY 6 HOURS PRN** Q4H PRN **Q6H PRN** Q8H PRN

PRN reasons: Pain
PRN comment:

Duration: 7 Doses Days

Starting: 2/8/2018 Ending: 2/15/2018 First Fill:

Mark long-term: OXYCODONE-ACETAMINOPHEN

Patient Sig: **Take 2 tablets by mouth every 6 hours as needed for Pain for up to 7 days.**
[+ Add additional information to the patient sig](#)

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MEDD Calculation

Calculated Morphine Equivalent Daily Dose (MEDD)

- Have added a hyperlink in the upper right corner of our Prescription Monitoring navigator section
- Cannot calculate with free-text sigs

Outpatient Morphine Equivalent Daily Dose (MEDD)

Order Name	Dose	Route	Frequency	Maximum MEDD
HYDROMorphone (DILAUDID) 4 MG tablet	4 mg	Oral	Every 4 hours PRN	96 mg MEDD
oxyCODONE (OXYCONTIN) 10 MG Tablet ER 12 Hour Abuse-Deterrent	10 mg	Oral	2 times daily	30 mg MEDD
Total Potential Daily Morphine Equivalence				126 mg MEDD

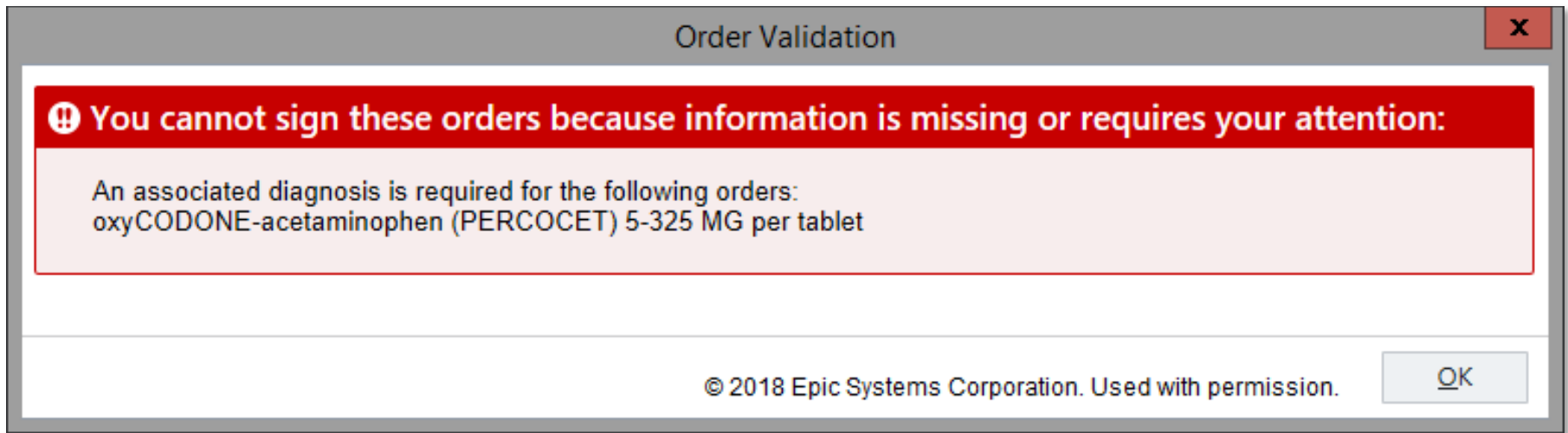
Calculation Information

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Diagnosis Association Requirement

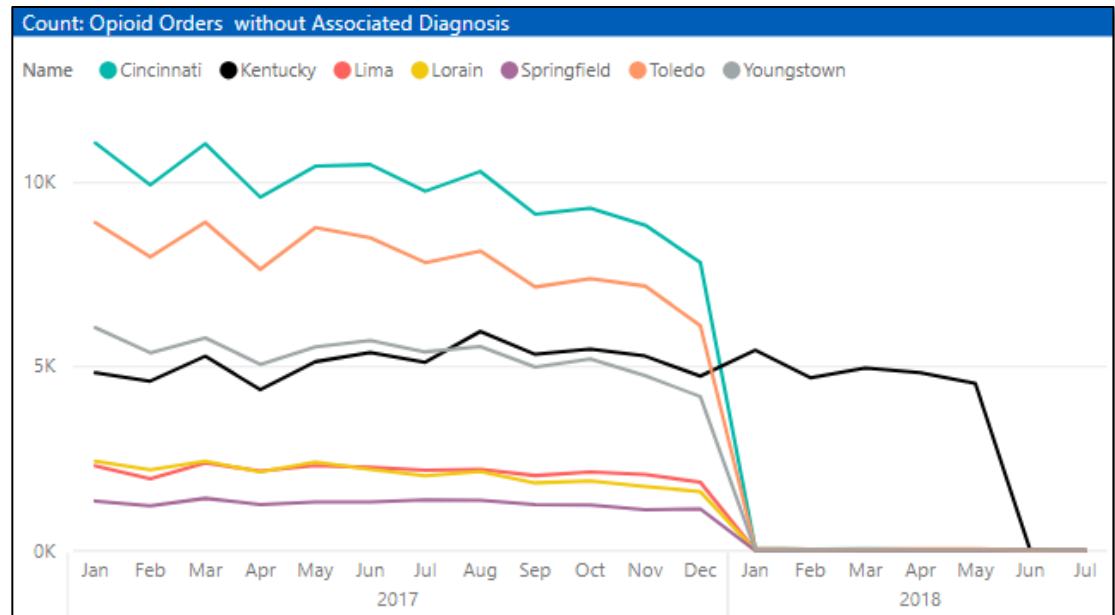
Order Validation Point

- Hard stop for diagnosis association
- Lacks customization options



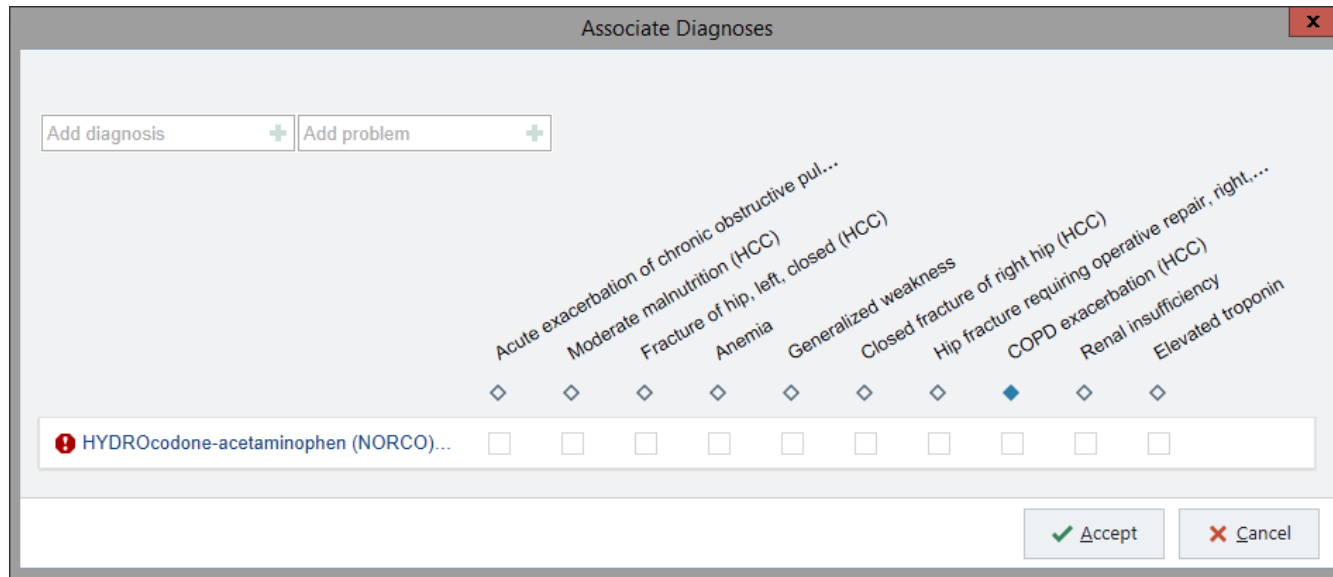
Diagnosis Requirement Association Order Validation

- Order validation lacks ability to report on firing rate trends and ability to measure success of learned behavior
 - Less alerts over time by way of providers associating upstream
- Created a robust tabular cube to monitor opioid prescribing overall allowed us to identify an issue where some opioid orders were not requiring diagnosis
 - Data sharing moved Kentucky market to elect to participate in requirement



Diagnosis Requirement Association Order Validation

- Moved “Dx Assoc” out of the basement and to a more prominent location within order composer
- Engaged with Epic to allow for enhancements to the diagnosis association workflow
- New upstream pop-up allows for direct input within workflow



Day Supply Limitations

Day Supply Designation

- Hard Stop
- Number of days will be dynamically appended to sig when using discrete sigs (default)
- Providers will be responsible for indicating a day supply on any opioid order when electing to utilize free-text sigs
- Issue: Long-term meds, PRN frequency, dispense qty, and duration may not always align

Product: **TRAMADOL HCL 50 MG PO TABS**

Sig Method: **Specify Dose, Route, Frequency** Use Free Text

Dose: mg **50 mg**

Prescribed Dose: 50 mg
Prescribed Amount: 1 tablet

Route: **Oral**

Frequency: **Q6H PRN** Q8H PRN

PRN reasons: Pain

PRN comment:

Duration: Doses Days

Starting: Ending:

Patient Sig: **Take 1 tablet by mouth every 6 hours as needed for Pain for up to 7 days**

+ Add additional information to the patient sig

MEDD and Day Supply Order Validation Alerts

- Epic order validation points offer advice and direction but are not actionable, reportable, and do not possess significant customization options

Order Validation

① You can proceed and sign these orders, but the following information is missing or might require your attention:

The following unsigned orders exceed the threshold of 30 mg MEDD:
- oxyCODONE HCl (OXY-IR) 10 MG immediate release tablet: 60 mg MEDD
- oxyCODONE (OXYCONTIN) 10 MG extended release tablet: 45 mg MEDD

The total morphine equivalent daily dose of the unsigned orders is 105 mg MEDD, which exceeds the threshold of 90 mg MEDD.

For acute pain, limit single order to 30 mg MEDD.

Order Validation

① You can proceed and sign these orders, but the following information is missing or might require your attention:

oxyCODONE (OXYCONTIN) 10 MG extended release tablet
Disp: 28 tablet
Refills: 0

Calculated supply of 14 days is greater than the 7 days for minors).

Please review the prescribed duration, quantity, and refills.

Order Validation

① You can proceed and sign these orders, but the following information is missing or might require your attention:

Signing these orders will cause the patient's morphine equivalent daily dose to be 184 mg MEDD, which exceeds the threshold of 80 mg MEDD.

The following unsigned orders exceed the threshold of 80 mg MEDD:
- Morphine Sulfate ER (ARYMO ER) 30 MG TBEA: 120 mg MEDD

The total morphine equivalent daily dose of the unsigned orders is 120 mg MEDD, which exceeds the threshold of 80 mg MEDD.

Limit to 80 morphine equivalent PER DAY; otherwise document rationale for exceeding limits and strongly consider co-prescribing Narcan, refer to pain management, assure controlled substance contract up to date, recent drug testing and avoiding co-prescribing of benzodiazepines

Maximum morphine equivalent daily dose before signing: 64 mg MEDD
Maximum morphine equivalent daily dose after signing: 184 mg MEDD

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MEDD and Day Supply BestPractice Advisories

Pushed Epic to develop BestPractice Advisories

- Released in v2019
- Allows for in workflow actions to be taken, report on alert triggers, and build suppression rules built in based on department/provider specialty, patient diagnosis, last prescription lookback, etc

BestPractice Advisory - Testpatient, Steven

For acute pain, limit single orders to less than or equal to 30 MEDD PER DAY

If continuing to place this order, document why you are **exceeding acute pain limits** (hyperlink below) or document that this prescription is for the treatment of **chronic pain** (hyperlink below).

① **For patient safety and guideline adherence, complete the following actions;**

1. Reevaluate the order to look for misuse.
2. Document acute pain prescription exceptions. OR If prescription is for chronic pain, document the chronic pain checkpoints using the hyperlink below.

Signing this order will affect the patient's Morphine Equivalent Daily Dose (MEDD). Review the information below to ensure opioid dosing will remain within appropriate limits.

Cumulative MEDD (30 mg max recommended)	
AFTER signing: 45 mg !	Before signing: 0 mg

UNSIGNED OPIOID ORDERS

🏠 oxyCODONE-acetaminophen (PERCOCET) 7.5-325 MG per tablet Take 1 tablet by mouth every 6 hours as needed for Pain for up to 28 days. Intended supply: 28 days., Disp-112 tablet, R-0 Normal, Maximum MEDD: 45 mg MEDD for this order	MEDD 45 mg ! (30 mg max recommended)
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------

[Document Acute Pain Exceptions](#)

[Document Chronic Pain Checkpoints](#)

Calculated supply is greater than the **maximum allowed total days supply of 7** for patients above age 18 located in Ohio.

① **To stay compliant with the Board of Pharmacy complete the following actions;**

1. Reevaluate the order to look for misuse.
2. Document chronic pain checkpoints or the reason for exceeding acute limits using the hyperlinks below.

The following medications exceeds the maximum recommended days supply of 7 days (including all refills).

UNSIGNED ORDERS EXCEEDING MAX RECOMMENDED DAYS SUPPLY	DAYS SUPPLY
🏠 oxyCODONE-acetaminophen (PERCOCET) 7.5-325 MG per tablet Take 1 tablet by mouth every 6 hours as needed for Pain for up to 28 days. Intended supply: 28 days., Disp-112 tablet, R-0 Normal, Maximum MEDD: 45 mg MEDD for this order	28 days

[Document Acute Pain Exceptions](#)

[Document Chronic Pain Checkpoints](#)

High MEDD BestPractice Advisory

Pushed Epic to develop BestPractice Advisories

- Released in v2019
- Allows for in workflow actions to be taken, report on alert triggers, and build suppression rules built in based on department/provider specialty, patient diagnosis, last prescription lookback, etc

BestPractice Advisory - Zztest, Laura "Larry"

This is a **chronic opioid patient** whose **MEDD score is greater than 120**.

For patient safety and guideline adherence, complete the following actions;

1. Reevaluate the order to look for misuse.
2. Document chronic pain checkpoints using the hyperlink below.
3. A) File a medication contract. The form will default to print upon clicking accept.
B) Confirm an existing medication contract is on file and select "Ignore" below.
4. Place a referral for pain management or confirm that pain specialist is already actively involved.
5. Consider prescribing Naloxone. Naloxone is defaulted to be co-prescribed upon clicking accept. Select "do not order" if you would not like to prescribe.

Signing this order will affect the patient's Morphine Equivalent Daily Dose (MEDD). Review the information below to ensure opioid dosing will remain within appropriate limits.

Cumulative MEDD (30 mg max recommended)	
AFTER signing: 135 mg !	Before signing: 0 mg

UNSIGNED OPIOID ORDERS

<input type="checkbox"/> oxyCODONE-acetaminophen (PERCOCET) 7.5-325 MG per tablet Take 1 tablet by mouth every 2 hours for 28 days. Intended supply: 28 days., Disp-112 tablet, R-0 Normal, Maximum MEDD: 135 mg MEDD for this order	MEDD 135 mg ! (30 mg max recommended)
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------

Pain Agreement Status

Medication Contract	Consent for Opioid Use
Filed	Filed

<input checked="" type="button" value="Order"/>	<input type="button" value="Do Not Order"/>	<input type="button" value="naloxone (NALOXONE TO-GO) 4 mg/0.1 mL nasal spray"/>
<input checked="" type="button" value="Enact"/>	<input type="button" value="Ignore"/>	<input type="button" value="Print medication contract (send to default printer)"/>

[Document Chronic Pain Checkpoints](#)

Following Alert Metrics

alert	totals▼	followed	overridden	Ignored
MH AMB BR MEDD ACUTE ADULTS >30 MEDD AND DAYS SUPPLY > 7 DAYS BestPractice Advisory [21070575]	83,465	7,426 (9%)	-	76,039 (91%)
MH AMB BR MEDD CHRONIC > 120 MEDD BestPractice Advisory [21070587]	15,146	6,370 (42%)	-	8,776 (58%)
MH AMB BR MEDD CHRONIC > 50 AND <= 80 MEDD BestPractice Advisory [21070584]	8,984	4,446 (49%)	-	4,538 (51%)
MH AMB BR MEDD CHRONIC > 80 AND <=120 MEDD BestPractice Advisory [21070572]	8,125	3,095 (38%)	-	5,030 (62%)
MH AMB BR MEDD ACUTE MINORS >30 MEDD AND DAYS SUPPLY > 5 DAYS BestPractice Advisory [21070569]	578	61 (11%)	-	517 (89%)

Following Alert Metrics

MH AMB BR MEDD CHRONIC > 50 AND <= 80 MEDD

released 02.28.2019

status active

stop soft

BestPractice Advisory [21070584]

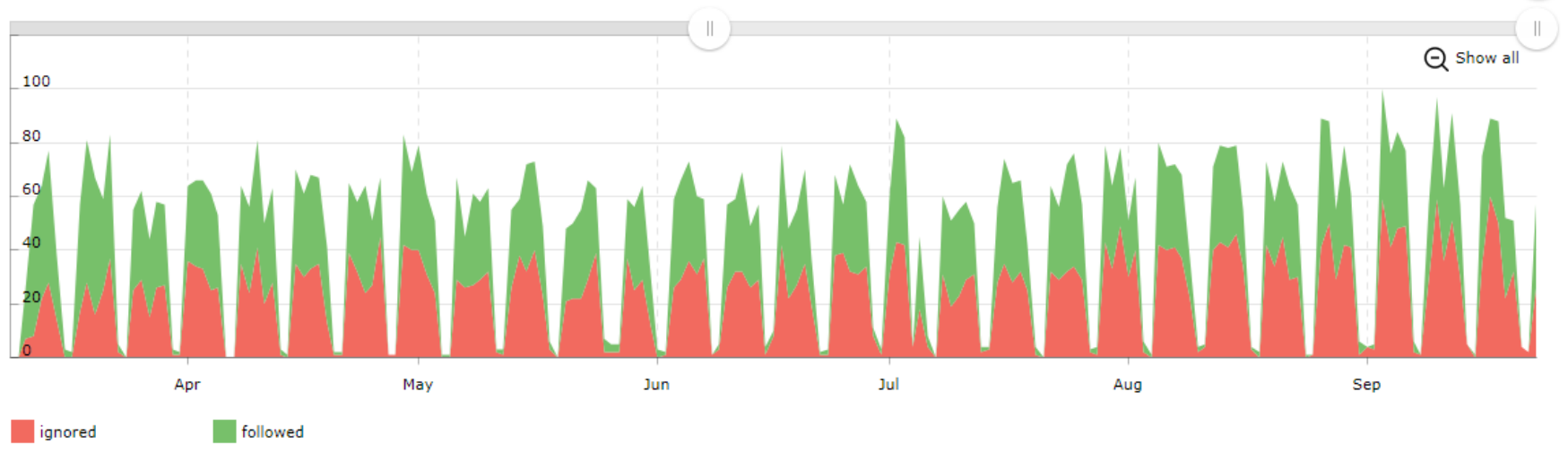
This is a chronic opioid patient whose MEDD score is greater than 50, but less than 80

8,984 alerts

49%	-	51%	-	-
followed (4,446)	overridden (-)	ignored (4,538)	unknown (-)	silent (-)



chart options



Opioid Data Cube

Direction
Increase ▾

Percentage
0.00 % ▾

Constant
Increase ▾

Constant
1.00 ▾

Direction
Increase ▾

Percentage
0.00 % ▾

Visit System
 (Blank)
 * No Visit Dept
 * None
 Affiliate
 Ministry
 Summa

Auth Prov Network
 (Blank)
 * Unknown
 CIN Affiliate
 Contracted
 Employed
 Medical Staff

Visit Specialty
 * No Visit Specialty
 Allergy
 Ambulatory Surgery Center
 Anesthesiology
 Audiology
 Bariatrics
 Behavioral Health
 Breast Clinic / Breast Center
 Burn Surgery / Burn Care
 Cardiac Electrophysiology
 Cardiac Intensive Care
 Cardiac Rehabilitation
 Cardiology

Order Month

1	2	3	4
5	6	7	8
9			

Goal for 2019 (revised metric methodology for MEDD GT30)

Visit System	Rate MEDD GT30 to Acute Opioid Orders 2018	Rate MEDD GT30 Target 2019	Opioid Burden Rate 2018	Opioid Burden Rate Target 2019
Ministry	11.80 %	11.80 %	40.68	40.68
Cincinnati	14.20 %	14.20 %	28.79	28.79
Kentucky	24.58 %	24.58 %	125.26	125.26
Lima	7.85 %	7.85 %	35.13	35.13
Lorain	6.62 %	6.62 %	37.97	37.97
Springfield	7.23 %	7.23 %	13.25	13.25
Toledo	9.92 %	9.92 %	51.39	51.39
Youngstown	9.18 %	9.18 %	18.76	18.76

Rate: Morphine Equivalent Daily Dose (MEDD) > 30 to Opioid Orders for Acute Pain (revised metric methodology) (2019)

Order Mo Visit System	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Total	
	Actual	VTT	Actual	VTT	Actual	VTT	Actual	VTT	Actual	VTT	Actual	VTT	Actual	VTT	Actual	VTT	Actual	VTT	Actual	VTT
Ministry	11.24 %	0.55 %	10.34 %	1.45 %	10.66 %	1.13 %	9.84 %	1.95 %	10.95 %	0.84 %	10.03 %	1.77 %	9.72 %	2.08 %	10.15 %	1.65 %	10.36 %	1.44 %	10.37 %	1.42 %
Cincinnati	13.78 %	0.42 %	12.42 %	1.77 %	13.14 %	1.06 %	12.19 %	2.00 %	11.62 %	2.58 %	11.15 %	3.05 %	11.64 %	2.56 %	12.89 %	1.31 %	13.56 %	0.63 %	12.45 %	1.75 %
Kentucky	23.77 %	0.80 %	24.15 %	0.42 %	26.71 %	-2.13 %	23.56 %	1.01 %	25.51 %	-0.93 %	24.45 %	0.12 %	23.18 %	1.39 %	27.33 %	-2.76 %	28.04 %	-3.47 %	25.10 %	-0.52 %
Lima	5.37 %	2.48 %	4.49 %	3.37 %	6.16 %	1.70 %	4.88 %	2.97 %	4.33 %	3.53 %	4.32 %	3.53 %	4.00 %	3.86 %	4.26 %	3.59 %	4.84 %	3.01 %	4.73 %	3.13 %
Lorain	5.63 %	0.99 %	6.42 %	0.20 %	5.03 %	1.59 %	3.78 %	2.83 %	5.83 %	0.79 %	5.51 %	1.10 %	4.75 %	1.86 %	5.08 %	1.53 %	4.97 %	1.65 %	5.24 %	1.38 %
Springfield	8.75 %	-1.52 %	7.47 %	-0.23 %	6.21 %	1.02 %	4.94 %	2.29 %	8.54 %	-1.31 %	5.42 %	1.82 %	4.61 %	2.63 %	5.63 %	1.61 %	5.64 %	1.59 %	6.43 %	0.80 %
Toledo	10.81 %	-0.89 %	8.28 %	1.63 %	7.97 %	1.94 %	7.79 %	1.94 %	7.79 %	2.13 %	7.10 %	2.82 %	7.50 %	2.42 %	6.51 %	3.41 %	7.12 %	2.80 %	6.53 %	3.39 %
Youngstown	7.69 %	1.49 %	8.22 %	0.96 %	7.94 %	1.24 %	8.27 %	0.90 %	12.35 %	-3.17 %	10.40 %	-1.23 %	10.28 %	-1.11 %	7.41 %	1.77 %	8.39 %	0.78 %	9.18 %	-0.01 %

Rate: Morphine Equivalent to Unique Patient (2019)

Order Mo Visit System	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Total	
	Actual	VTT	Actual	VTT	Actual	VTT	Actual	VTT	Actual	VTT	Actual	VTT	Actual	VTT	Actual	VTT	Actual	VTT	Actual	VTT
Ministry	39.97	0.71	36.91	3.77	36.03	4.65	34.14	6.53	37.36	3.32	35.88	4.80	37.09	3.59	35.15	5.53	28.48	12.20	35.79	4.89
Cincinnati	32.60	-3.82	31.29	-2.50	30.38	-1.59	26.01	2.78	31.92	-3.14	30.82	-2.04	29.49	-0.70	29.64	-0.85	21.22	7.57	29.28	-0.49
Kentucky	89.72	35.54	80.68	44.59	90.18	35.08	86.52	38.74	86.11	39.15	82.55	42.72	85.66	39.60	80.76	44.50	71.30	53.96	84.01	41.25
Lima	34.12	1.00	33.02	2.10	31.27	3.85	33.65	1.48	32.49	2.63	30.07	5.05	34.75	0.38	31.90	3.23	25.92	9.20	32.04	3.09
Lorain	37.01	0.96	32.15	5.82	31.74	6.23	15.85	22.12	14.47	23.51	15.17	22.80	17.65	20.33	16.26	21.71	14.75	23.22	22.83	15.14
Springfield	12.67	0.58	12.02	1.24	10.26	3.00	10.42	2.83	21.50	-8.25	20.21	-6.96	19.14	-5.89	18.95	-5.70	15.95	-2.69	15.83	-2.58
Toledo	54.68	-3.29	50.79	0.61	46.96	4.43	49.39	2.00	50.36	1.03	45.47	5.92	48.81	2.58	45.27	6.12	38.22	13.17	47.96	3.43
Youngstown	17.10	1.67	15.96	2.80	15.44	3.32	16.73	2.03	24.71	-5.95	26.89	-8.13	26.75	-7.99	23.51	-4.75	19.64	-0.87	21.07	-2.31

Opioid Data Cube

Opioid Metric Scorecard by Year - Drilldown on Order Year, Prov Network, Visit Region, Visit Specialty, Visit Dept													
Order Yr	Total Opioid Orders	Rate Opioid Orders to Med Orders	Rate Opioid Orders to Unique Patients with Med Order	Rate Opioid Orders to Unique Patients with Enc	Rate Concurrent Benzo-Opioid Orders to Opioid Orders	Rate Days GT 7 to Acute Opioid Orders	Avg MEDD	Avg MEDD Acute	Rate MEDD GT 80 to Opioid Orders	Rate MEDD GT 30 to Med Orders	Rate MEDD GT 30 to Acute Opioid Orders	Opioid Burden Rate	Rate of Opioid Orders with No Discrete Frequency to Opioid Orders
2019	300,431	6.12 %	37.28 %	22.79 %	4.65 %	14.48 %	29.47	25.89	4.8 %	1.11 %	10.04 %	35.79	3.38 %
* Unknown	26,832	6.45 %	21.38 %	2.04 %	1.71 %	6.01 %	27.22	27.10	1.8 %	0.63 %	9.33 %	0.93	0.42 %
Cincinnati	4,275	6.91 %	18.65 %	0.92 %	2.69 %	5.78 %	28.11	28.22	3.6 %	0.77 %	10.35 %	0.44	0.14 %
Kentucky	1,737	6.84 %	16.93 %	1.84 %	2.25 %	3.27 %	33.22	33.68	3.6 %	2.05 %	33.42 %	0.71	0.75 %
Lima	658	5.73 %	14.40 %	0.61 %	1.98 %	8.50 %	29.23	30.93	0.9 %	1.33 %	29.71 %	0.37	0.30 %
Lorain	345	3.53 %	6.87 %	0.33 %	0.29 %	2.69 %	25.75	26.01		0.11 %	3.56 %	0.12	0.00 %
Springfield	4,890	7.28 %	23.76 %	6.28 %	3.05 %	5.29 %	24.12	23.99	1.3 %	0.46 %	6.11 %	1.93	0.22 %
Toledo	8,410	6.56 %	25.34 %	2.89 %	1.09 %	9.09 %	27.83	27.79	1.9 %	0.61 %	9.13 %	1.42	0.74 %
Youngstown	6,517	5.82 %	22.47 %	2.82 %	0.77 %	3.61 %	26.41	26.03	0.8 %	0.31 %	4.08 %	1.65	0.29 %
CIN Affiliate	9,414	13.10 %	37.88 %	0.71 %	4.04 %	13.84 %	34.15	30.27	8.3 %	3.37 %	18.00 %	1.04	0.68 %
Cincinnati	3,413	16.07 %	44.80 %	0.73 %	5.63 %	10.16 %	33.11	32.39	8.3 %	4.04 %	24.36 %	0.41	0.18 %
Kentucky	1,999	63.95 %	239.40 %	2.12 %	0.20 %	52.21 %	50.48	37.26	14.3 %	35.44 %	30.88 %	8.32	0.20 %
Lima	241	4.60 %	12.64 %	0.22 %	2.90 %	13.98 %	24.02	23.46	1.2 %	0.29 %	5.38 %	0.10	0.00 %
Lorain	514	6.25 %	16.39 %	0.48 %	1.75 %	10.47 %	27.42	26.58	1.2 %	0.62 %	8.16 %	0.20	0.00 %
Springfield	416	20.47 %	44.21 %	0.53 %	0.48 %	5.21 %	26.75	26.27	1.2 %	1.48 %	7.21 %	0.23	0.00 %
Toledo	2,542	9.25 %	28.67 %	0.87 %	5.90 %	20.49 %	26.83	28.13	7.1 %	1.05 %	11.42 %	0.83	2.12 %
Youngstown	289	6.40 %	18.61 %	0.13 %	5.54 %	9.59 %	33.54	31.02	7.3 %	1.51 %	17.65 %	0.09	0.00 %
Contracted	7,237	18.18 %	44.00 %	0.55 %	0.15 %	13.57 %	24.86	25.56	2.8 %	2.47 %	14.51 %	0.43	0.41 %
Cincinnati	5,610	26.71 %	55.98 %	1.20 %	0.12 %	6.70 %	23.79	24.01	0.9 %	3.25 %	12.43 %	0.94	0.50 %
Kentucky	372	32.01 %	55.69 %	0.39 %	0.27 %	19.69 %	31.13	29.48	2.4 %	6.63 %	15.83 %	0.30	0.00 %
Lima	347	45.66 %	94.81 %	0.32 %	0.00 %	34.17 %	30.12	29.62	16.1 %	7.76 %	14.45 %	0.23	0.00 %
Lorain	31	2.87 %	6.37 %	0.03 %	0.00 %	0.00 %	36.05	36.25	3.2 %	1.39 %	50.00 %	0.01	0.00 %
Springfield	90	59.21 %	104.65 %	0.12 %	1.11 %	27.27 %	25.50	27.73	2.2 %	7.89 %	18.18 %	0.07	0.00 %
Toledo	776	6.90 %	22.11 %	0.27 %	0.26 %	42.73 %	26.82	29.47	10.7 %	1.22 %	24.93 %	0.26	0.26 %
Youngstown	11	0.25 %	0.83 %	0.00 %	0.00 %	0.00 %	33.18	25.83	27.3 %	0.02 %	0.00 %	0.00	0.00 %
Employed	197,306	5.25 %	34.67 %	14.96 %	6.14 %	31.23 %	31.08	25.84	5.9 %	1.17 %	12.46 %	31.71	4.92 %
Cincinnati	61,746	4.72 %	34.52 %	13.22 %	5.60 %	27.78 %	30.38	27.66	6.1 %	1.10 %	18.09 %	26.16	4.48 %
Kentucky	29,883	7.21 %	53.58 %	31.70 %	12.14 %	31.62 %	34.20	25.74	5.1 %	2.15 %	13.45 %	72.39	7.11 %
Lima	16,078	5.34 %	30.30 %	14.93 %	2.52 %	27.88 %	26.13	22.96	2.8 %	0.67 %	3.57 %	29.97	1.65 %
Lorain	12,922	4.11 %	24.41 %	12.19 %	7.10 %	30.79 %	28.16	23.96	3.2 %	0.70 %	8.77 %	21.05	2.86 %
Springfield	5,312	3.38 %	21.92 %	6.82 %	5.05 %	29.50 %	21.98	21.94	0.7 %	0.24 %	4.16 %	7.88	1.41 %
Toledo	49,000	5.84 %	37.63 %	16.86 %	4.96 %	33.15 %	34.58	24.42	8.8 %	1.42 %	10.16 %	44.53	7.57 %
Youngstown	22,365	5.25 %	29.84 %	9.69 %	4.53 %	38.07 %	28.90	27.59	5.0 %	0.98 %	12.48 %	17.33	1.75 %
Medical Staff	59,642	9.57 %	25.56 %	4.52 %	1.67 %	3.74 %	25.33	24.95	2.1 %	0.72 %	6.98 %	1.69	0.44 %
Cincinnati	21,122	9.53 %	26.08 %	4.52 %	2.18 %	1.57 %	25.40	24.94	2.0 %	0.64 %	5.88 %	1.33	0.09 %
Kentucky	1,755	24.66 %	51.35 %	1.86 %	3.48 %	35.67 %	47.24	47.44	15.0 %	13.59 %	55.53 %	2.28	11.17 %
Lima	4,146	9.93 %	23.61 %	3.85 %	0.46 %	1.09 %	24.13	24.02	0.4 %	0.21 %	1.98 %	1.36	0.07 %
Lorain	5,853	11.00 %	29.39 %	5.57 %	0.87 %	2.17 %	23.58	23.37	0.6 %	0.24 %	2.01 %	1.45	0.05 %
Total	1,852,141	8.00 %	112.14 %	72.26 %	5.10 %	21.90 %	31.58	26.29	5.6 %	1.63 %	13.02 %	50.47	10.27 %

Order Year

- 2019
- 2018
- 2017
- 2016

Order Month

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Visit System

- (Blank)
- * No Visit Dept
- * None
- Affiliate
- Ministry
- Summa


Auth Prov Network

- (Blank)
- * Unknown
- CIN Affiliate
- Contracted
- Employed
- Medical Staff

Visit Specialty

- Visit Specialty
- * No Visit Specialty
- Allergy
- Ambulatory Surgery Ce...
- Anesthesiology
- Audiology
- Bariatrics

Opioid Data Cube



Auth Provider

Resident

Auth Provider Type

Youngstown

Auth Provider Region

Family Medicine

Auth Provider Specialty

* Unknown

Auth Prov Networks

Monthly Summary

Order Yr	Total Opioid Orders	Rate Opioid Orders to Med Orders	Rate Concurrent Benzo-Opioid Orders to Opioid Orders	Rate Days GT 7 to Acute Opioid Orders	Rate Opioid Days GT 5 Age LT 18 Acute	Rate MEDD GT 80 to Opioid Orders	Rate MEDD GT 30 to Acute Opioid Orders	Avg MEDD	Avg MEDD Acute	Total MEQ RX	Rate Total MEQ Load to Opioid Orders	Rate No Discrete Freq
2019	5	0.59 %	0.00 %	0.00 %			0.00 %	20.00	10.00	1,815	363.00	0.00 %
Sep	1	0.76 %	0.00 %					15.00		600	600.00	0.00 %
Aug	1	0.73 %	0.00 %					15.00		600	600.00	0.00 %
Jul	0	0.00 %										
Jun	1	2.22 %	0.00 %					45.00		135	135.00	0.00 %
May	0	0.00 %										
Apr	1	0.78 %	0.00 %	0.00 %			0.00 %	10.00	10.00	30	30.00	0.00 %
Mar	0	0.00 %										
Feb	0	0.00 %										
Jan	1	1.41 %	0.00 %					15.00		450	450.00	0.00 %
2018	13	6.50 %	0.00 %	11.11 %	0.00 %		0.00 %	28.65	29.25	2,548	195.96	0.00 %
Dec	0	0.00 %										
Nov	1	2.17 %	0.00 %	0.00 %			0.00 %	22.50	22.50	68	67.50	0.00 %
Oct	0	0.00 %										
Sep	2	4.35 %	0.00 %	0.00 %			0.00 %	30.00	30.00	420	210.00	0.00 %
Aug	10	25.64 %	0.00 %	16.67 %	0.00 %		0.00 %	29.00	30.00	2,060	206.00	0.00 %
Jul	0	0.00 %										
Total	18	1.73 %	0.00 %	10.00 %	0.00 %		0.00 %	26.25	27.50	4,363	242.36	0.00 %

Order Details for Authorizing Provider

order_med_id	Ent_ID	Order Date	Enc Type	Med Name - ID	Order Disp Qty	Order Frequency	Order Freq Per Day	MEQ RX	MEQ Daily Dose	Days Opioid Therapy	Acute YN	Concurrent Opioid	Age Ordered	Order Sig
		09/19/2019	Office Visit	Tramadol Hcl 50 Mg PO Tabs - [14632]	120.000	EVERY 8 HOURS PRN	3.00	600	15	40.00	0	0	35	Take 2 tablets by mouth every 8 hours as needed for Pain for up to 90 days.
		08/14/2019	Office Visit	Tramadol Hcl 50 Mg PO Tabs - [14632]	120.000	EVERY 8 HOURS PRN	3.00	600	15	40.00	0	0	35	Take 1 tablet by mouth every 8 hours as needed for Pain for up to 80 days.
		06/11/2019	Office Visit	Oxycodone-Acetaminophen 5-325 Mg PO Tabs - [5940]	18.000	EVERY 4 HOURS PRN	6.00	135	45	3.00	0	0	50	Take 1 tablet by mouth every 4 hours as needed for Pain for up to 3 days.
		04/19/2019	Hospital Encounter	Hydrocodone-Acetaminophen 5-325 Mg PO Tabs - [34505]	6.000	2 TIMES DAILY PRN	2.00	30	10	3.00	1	0	33	Take 1 tablet by mouth 2 times daily as needed for Pain for up to 3 days.
		01/28/2019	Office Visit	Tramadol Hcl 50 Mg PO Tabs - [14632]	90.000	3 TIMES DAILY PRN	3.00	450	15	30.00	0	0	60	Take 1 tablet by mouth 3 times daily as needed for Pain for up to 30 days..

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Concurrent Opi/Benz

0

Days > 7 Age >= 18 Acute

0
 1

MEDD GT 30 Acute

0
 1

Days > 3 Age >= 18 Acute

0
 1

MEDD GT 80

0

Days > 5 Age < 18 Acute

0

Discrete	First Order	Qty Gt 90
<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0
<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1

Visit Specialties

Visit Specialty	Total Orders	%GT Total Orders
Family Medicine	871	83.51%
IP Unit	147	14.09%
Emergency Medicine	10	0.96%
Psychiatry	10	0.96%
Pediatrics	2	0.19%
Pharmacy	2	0.19%
Geriatric Medicine	1	0.10%
Total	1,043	100.00%

Total Patients Meds

242

Total Patients Opioid

14

Total Orders

1,043

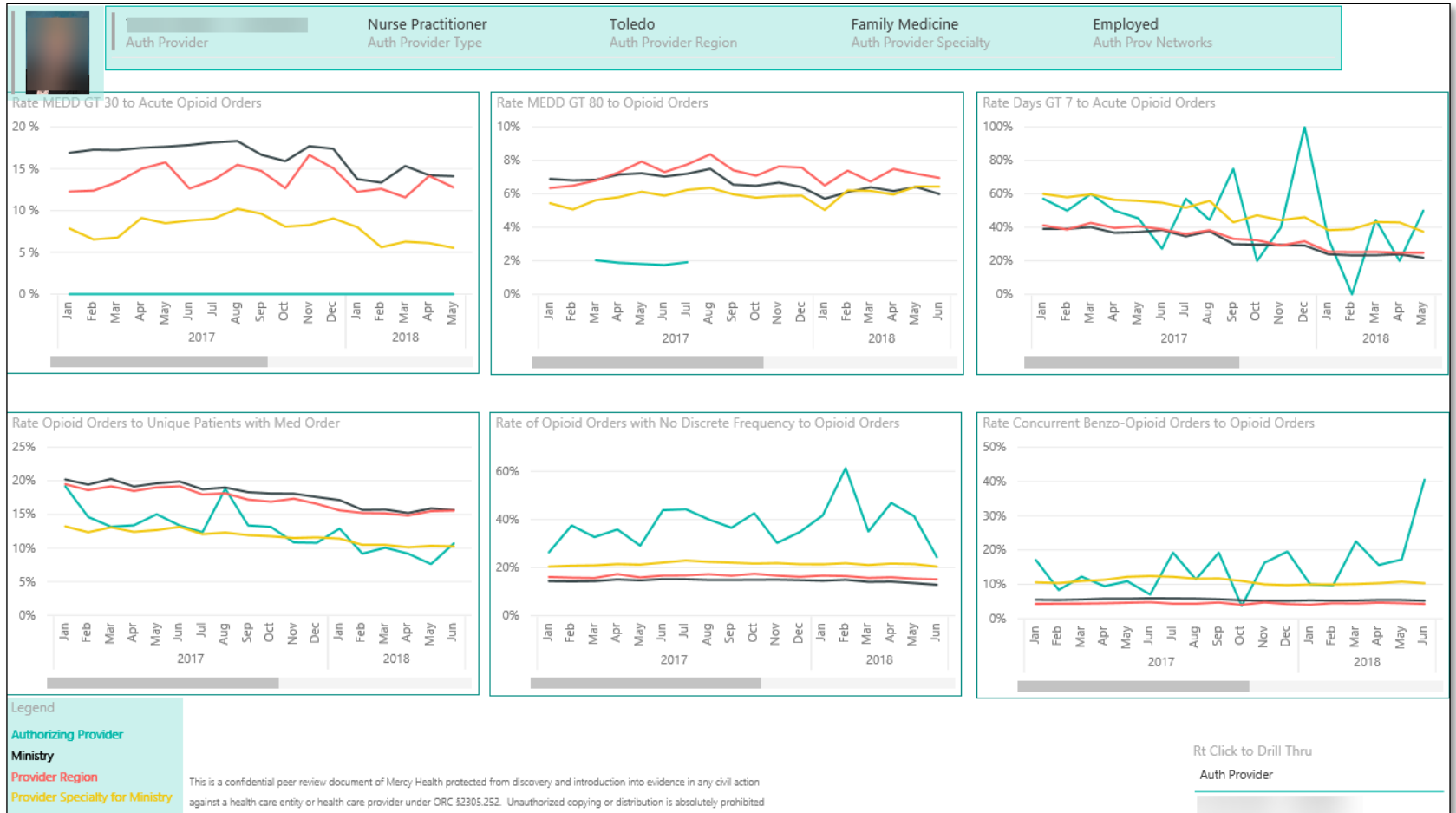
Total Opioid Orders

18

Rt Click to Drill Thru

Auth Provider

Opioid Data Cube



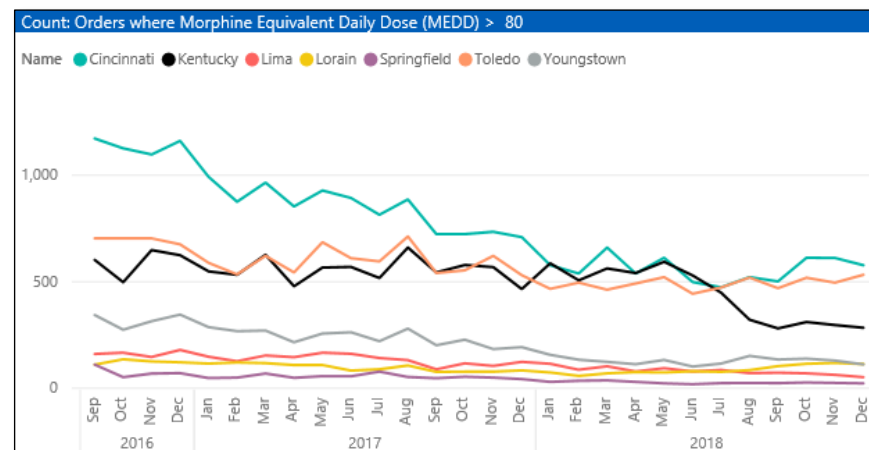
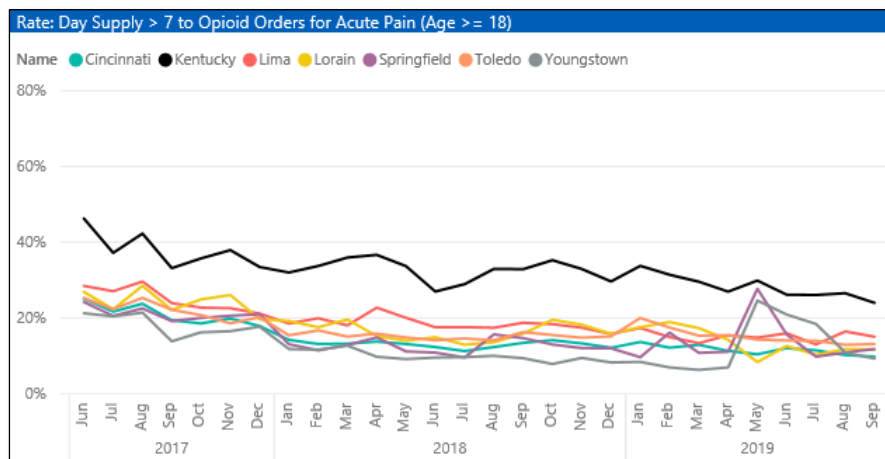
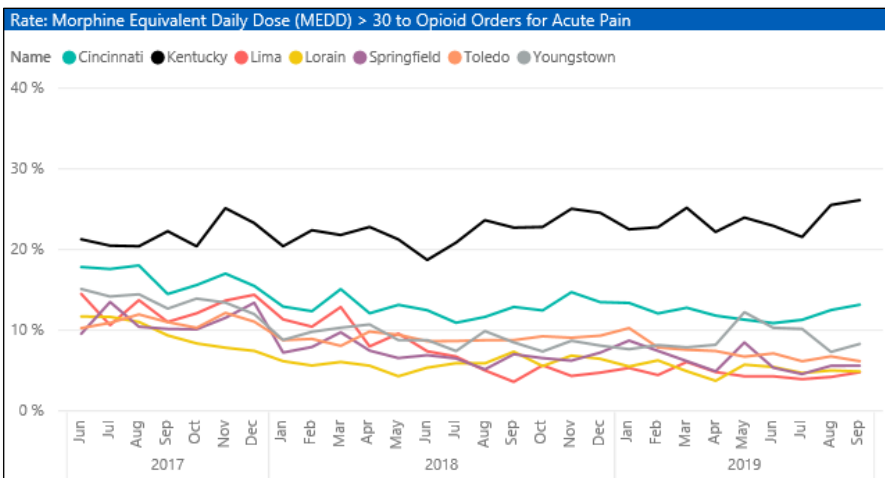
Opioid Data Cube

BON SECOURS MERCY HEALTH	Visit Region- Total Authorizing Providers								Order Year - Total Auth Providers				Authorizing Provider Network - Total Auth Providers						
	Cincinnati	Kentucky	Lima	Lorain	Springfield	Toledo	Youngstown	Total	2017	2018	2019	Total	* Unknown	CIN Affiliate	Contracted	Employed	Medical Staff	Total	
	1,388	254	373	301	252	1,103	621	4,408	3,325	3,241	3,041	4,408	1	1,528	291	87	1,254	1,247	4,408

Authorizing Provider Rate MEDD GT 30 to Acute Opioid Orders over different time periods							
Auth Provider	Total Opioid Orders	Rate MEDD GT 30 to Acute Opioid Orders	Rate MEDD GT 30 to Acute Opioid Orders Last Year	Rate MEDD GT 30 to Acute Opioid Orders YOY %	Rate MEDD GT 30 to Acute Opioid Orders YTD	Rate MEDD GT 30 to Acute Opioid Orders MTD	Rate MEDD GT 30 to Acute Opioid Orders MOM %
	37,249	20.52 %	21.84 %	-6.05 %	15.44 %	27.27 %	207.83 %
	25,069	44.76 %	48.03 %	-6.81 %			26.82 %
	15,466	17.07 %	13.98 %	22.17 %	21.35 %	13.33 %	
	12,488	12.50 %	14.75 %	-15.28 %	9.52 %	0.00 %	
	12,117	25.11 %	27.83 %	-9.77 %	23.21 %	11.11 %	0.44 %
	8,774	11.19 %	10.86 %	3.10 %	6.94 %	0.00 %	79.10 %
	7,714	2.27 %	1.37 %	66.48 %	2.17 %	5.56 %	
	7,610	5.37 %	9.38 %	-42.69 %	7.23 %	0.00 %	
	7,379	17.57 %	20.46 %	-14.14 %	14.05 %	28.57 %	
	6,795	33.98 %	44.26 %	-23.23 %	32.20 %	41.18 %	-27.19 %
	6,600	9.20 %	6.48 %	41.92 %	9.68 %	0.00 %	
	6,148	0.00 %	0.00 %		0.00 %		
	6,126	26.64 %	18.72 %	42.29 %	30.26 %	27.27 %	59.85 %
	5,996	3.85 %	0.00 %		14.29 %		
	5,965	12.90 %	19.38 %	-33.44 %	14.06 %	16.67 %	-39.82 %
	5,768	13.39 %	17.76 %	-24.60 %	13.59 %	28.57 %	-27.70 %
	5,746	11.36 %	10.31 %	10.19 %	12.16 %		6.03 %
	5,672	13.50 %	16.31 %	-17.23 %			-18.99 %
	5,589	21.27 %	20.98 %	1.36 %	25.87 %	14.29 %	-32.66 %
	5,578	51.74 %	49.81 %	3.87 %	47.92 %	0.00 %	-33.48 %
	5,216	8.51 %	7.63 %	11.54 %	9.59 %	25.00 %	
	5,116	5.97 %	6.71 %	-11.13 %	6.25 %	0.00 %	4.42 %
	5,062	5.03 %	7.54 %	-33.30 %	2.46 %	0.00 %	
	4,914	22.80 %	25.86 %	-11.82 %	21.32 %	36.36 %	-3.08 %
	4,506	5.21 %	3.71 %	40.47 %	8.82 %	7.14 %	
	4,246	12.73 %	13.22 %	-3.66 %	11.76 %		1.86 %
	4,200	4.39 %	7.11 %	-38.27 %	5.13 %	6.67 %	-31.95 %
	4,083	4.02 %	4.06 %	-0.87 %	0.00 %		-47.72 %
	4,011	5.52 %	10.69 %	-48.40 %	2.53 %	0.00 %	-69.66 %
	3,973	21.51 %	25.81 %	-16.69 %	18.42 %	0.00 %	-56.99 %
Total	1,267,...	12.14 %	13.77 %	-11.82 %	10.04 %	10.00 %	-18.26 %

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Opioid Data Cube



Issue: Free Text Sigs

- Over 104,600 free text orders in the past 2 years
- Most can be accommodated directly with discrete frequency

Order Sig
TAKE ONE TABLET BY MOUTH EVERY 6 HOURS AS NEEDED FOR PAIN
Take 1 tablet by mouth every 6 hours as needed for pain
.
Take by mouth
TAKE ONE TABLET BY MOUTH EVERY 8 HOURS AS NEEDED FOR PAIN
Take 1 tablet by mouth every 8 hours as needed for pain
Take 1 tablet by mouth .
take 1 tablet by mouth every 6 hours if needed for pain
TAKE ONE TABLET BY MOUTH EVERY 6 HOURS AS NEEDED
Take 1 tablet by mouth
Take 50 mg by mouth
Take 1 tablet by mouth every 6 hours as needed
take 1 tablet by mouth every 8 hours if needed for pain
Take 1 tablet every 6 hours as needed for pain

Issue: Free Text Sigs

Dose and Frequency Range Education

- Many providers were unaware of ability to use range doses on outpatient prescriptions
- Created four new discrete frequency range choices
 - Q3-4H PRN
 - Q4-6H PRN
 - Q6-8H PRN
 - Q8-12H PRN

HYDROCODONE-ACETAMINOPHEN 5-325 MG PO TABS

1-2	tablet	1 tablet	2 tablet
Prescribed Dose:		1-2 tablet	
Prescribed Amount:		1-2 tablet	
Maximum MEDD:		20-40 mg MEDD	

EVERY 3-4 HOURS PRN	every 3-4 hours as needed
EVERY 4-6 HOURS PRN	every 4-6 hours as needed
EVERY 6-8 HOURS PRN	every 6-8 hours as needed
EVERY 8-12 HOURS PRN	every 8-12 hours as needed

Issue: Free Text Sigs

Education of Conveying Information to Pharmacy

- Add additional information to patient sig
 - Current 140 total sig character limit
 - Epic v2019 comes with complex sig capabilities
 - Together improves with NCPDP SCRIPT Standard in 2020
- Note to pharmacy
 - 300 hard character limit

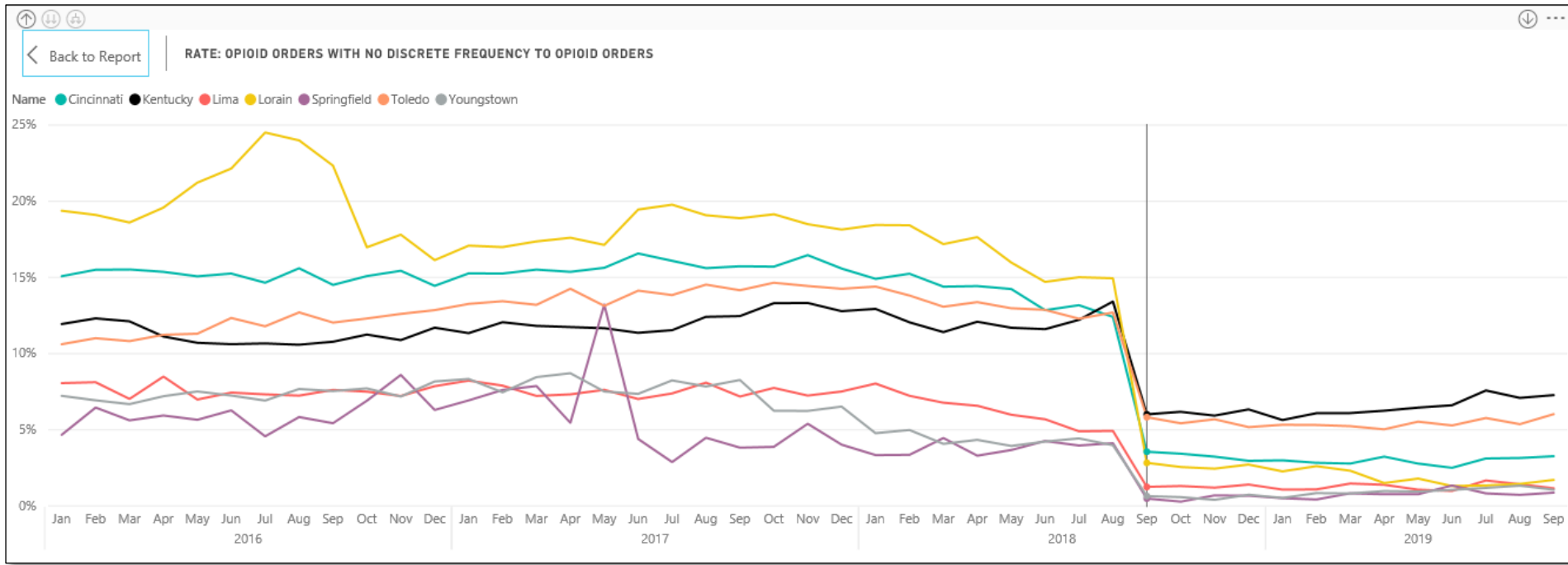
The screenshot displays two input fields in an Epic EHR interface. The top field, labeled "Patient Sig:", contains the text "Take 1-2 tablets by mouth every 6 hours as needed for Pain for up to 3 days..". Below this field is a red-bordered button with a plus sign and the text "+ Add additional information to the patient sig". The bottom field, labeled "Note to Pharmacy:", is currently empty and also has a red border. Above the "Note to Pharmacy:" field is a rich text editor toolbar with icons for undo, redo, bold, italic, link, unlink, and a plus sign. The text "Insert SmartText" is visible in the toolbar. The entire interface is enclosed in a black border.

Issue: Free-Text Sigs

Action: Move to Require Discrete Sig

- Suggestion:
 - Avoid free text button for opioids
 - MEDD cannot be accurately calculated with free-text sigs
 - Investigate free-text sig mapping table
 - Refill authorizations return in a free-text format from dispensing pharmacy
- Required Mercy Health Board approval
 - Moving to discrete sigs alters the amount of MEDD calculated and needed to adjust system KPIs around opioid prescribing

Issue: Free-Text Sigs Analytics



Concomitant Benzodiazepine & Opioid Prescribing Highest Risk for Overdose and Death

- Actionable CDS for Concomitant Benzodiazepine & Opioid Prescribing

Avoid concomitant use of opioids with benzodiazepines or other CNS depressants
Recommend referral to Sleep Medicine, Pain Medicine, or Behavioral Health (especially for new occurrences of depression or insomnia for CBT) and/or alternative pharmacologic therapy (e.g. traZODone, baclofen, DULoxetine)

FDA Black Box Warning
Concomitant use of opioids with benzodiazepines or other CNS depressants, including alcohol, may result in profound sedation, respiratory depression, coma, and death. Reserve concomitant prescribing of opioids and benzodiazepines or other CNS depressants for use in patients for whom alternative treatment options are inadequate. Limit dosages and durations to the minimum required. Follow patients for signs and symptoms of respiratory depression and sedation.

Remove the following orders? _____

Remove	<input checked="" type="checkbox"/> Keep	LORazepam (ATIVAN) 0.5 MG tablet Take 1 tablet by mouth every 8 hours as needed for Anxiety Normal
Remove	<input checked="" type="checkbox"/> Keep	oxyCODONE-acetaminophen (PERCOCET) 5-325 MG per tablet Take 1 tablet by mouth every 6 hours as needed for Pain ., Disp-3 tablet, R-0 Normal

Apply the following? _____

Order	<input checked="" type="checkbox"/> Do Not Order	Ambulatory referral to Behavioral Health
Order	<input checked="" type="checkbox"/> Do Not Order	Ambulatory referral to Sleep Medicine
Order	<input checked="" type="checkbox"/> Do Not Order	Ambulatory referral to Pain Clinic

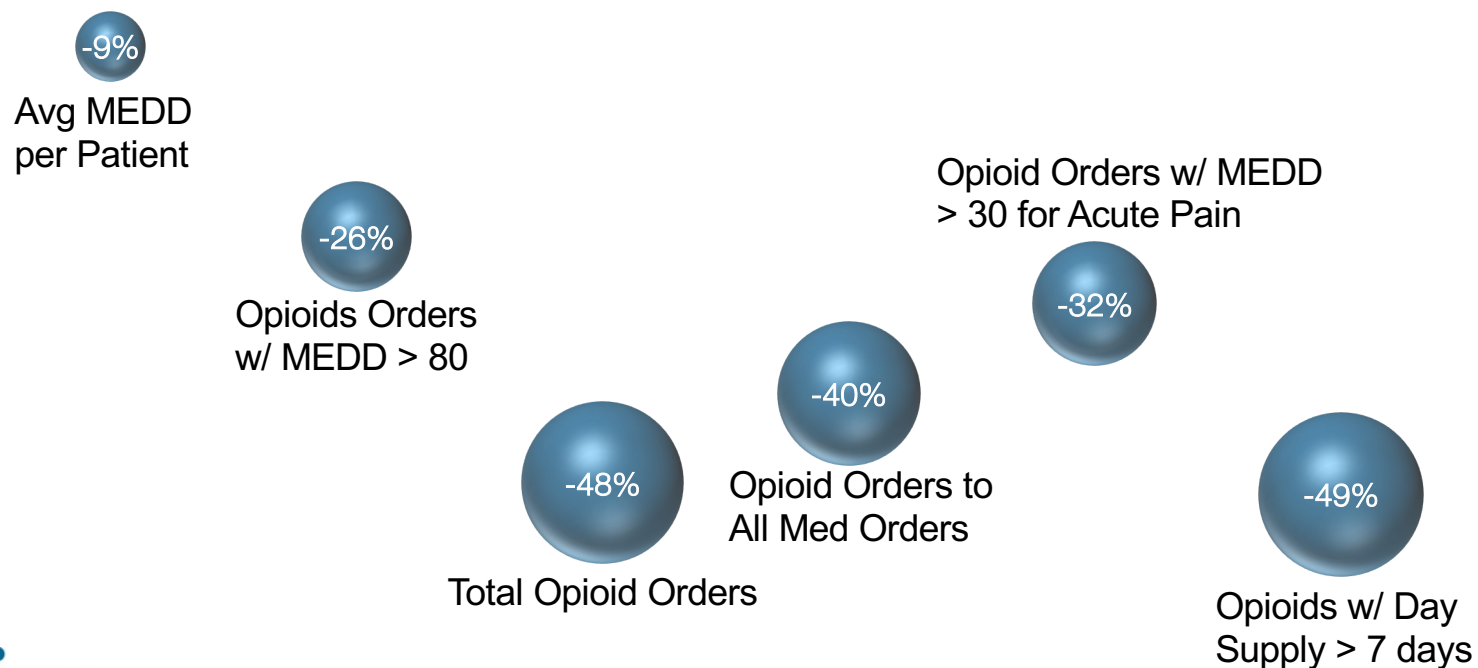
Acknowledge Reason _____

<input type="checkbox"/> Failed non-drug and first-line tx	<input type="checkbox"/> Use in oncology/palliative care	<input type="checkbox"/> Stable low-dose benzo/severe acute p...	<input type="checkbox"/> Epilepsy
<input type="text" value="Other (please specify)"/>			

Outpatient Opioid Prescribing Data Summary

Significant Reductions in Opioid Prescribing Metrics

- The following opioid ordering behaviors were substantially reduced between 2016 to date



Strategies to Decrease Inpatient Opioid Use

Reducing Opioids in the Inpatient Setting

- As part of an organizational focus on decreasing overall numbers of opioid prescriptions, the following inpatient opportunities were identified:
 - Presence of narcotic pain relief options on admission order sets not typically associated with pain
 - Lack of a collection of Alternatives to Opioids (ALTO) options in one concise format for ease in ordering

Designing a Solution: Removing Pain Medications from Select Order Sets

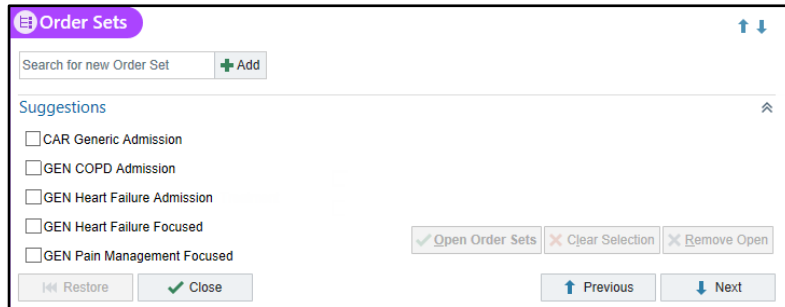
- In reviewing all admission and focused order sets with IV and oral pain medication, it was determined that over 30 were for treatment of diagnoses not normally associated with pain
 - Validated with informatics committees and received nearly unanimous support for removal of these pain medications
 - Standard biennial review cycle of all order sets still containing pain medications will be assessed for clinical appropriateness moving forward

Designing a Solution: Creating a Pain Management Focused Order Set

- To supplement the removal of pain medications from many admission order sets and to provide a single location for opioid and non-opioid pain treatment a Pain Management Focused Order Set was created
- Working to increase number of ALTO options and evaluation in conjunction with system Pharmacy and Therapeutics Committee decisions

Designing a Solution: Creating a Pain Management Focused Order Set

- Key Features:
 - Non-customizable
 - Set as a suggested order set for all admitted patients
 - In addition to traditional acetaminophen and ibuprofen, added additional ALTO options
 - Provider has to navigate through non-opioid options to get to opioid choices



The screenshot shows a web interface for "Order Sets". At the top, there is a search bar labeled "Search for new Order Set" with a "+ Add" button. Below the search bar is a "Suggestions" section with a list of checkboxes for different admission types: "CAR Generic Admission", "GEN COPD Admission", "GEN Heart Failure Admission", "GEN Heart Failure Focused", and "GEN Pain Management Focused". The "GEN Pain Management Focused" option is currently selected. At the bottom of the suggestions list, there are buttons for "Restore" and "Close". To the right of the suggestions list, there are three buttons: "Open Order Sets" (checked), "Clear Selection", and "Remove Open". At the bottom of the interface, there are "Previous" and "Next" navigation buttons.



Designing a Solution: Creating a Pain Management Focused Order Set

GEN Pain Management Focused [⤴]

▼ Non-Opioid

▼ Alternatives to Opiates (ALTO)

- Acetaminophen
 - MILD PAIN - acetaminophen (TYLENOL) tablet
650 mg, Oral, EVERY 4 HOURS PRN, Pain Mild (1-3)
 - MILD/MODERATE PAIN - acetaminophen (TYLENOL) tablet
1,000 mg, Oral, EVERY 6 HOURS PRN, Pain Mild (1-3), Pain Moderate (4-6)
- Ibuprofen
 - Avoid use in patients great than 65 or in those with advanced renal impairment.
Estimated Creatinine Clearance: 28 mL/min (A) (based on SCr of 1.6 mg/dL (H)).
 - MILD PAIN - ibuprofen (ADVIL;MOTRIN) tablet
400 mg, Oral, EVERY 6 HOURS PRN, Pain Mild (1-3)
 - MILD/MODERATE PAIN - ibuprofen (ADVIL;MOTRIN) tablet
600 mg, Oral, EVERY 6 HOURS PRN, Pain Mild (1-3), Pain Moderate (4-6)
- lidocaine (LIDODERM) 5 %
Transdermal, Administer over 12 Hours
- dexamethasone (DECADRON) IV
4 mg, Intravenous, EVERY 6 HOURS, Use for Musculoskeletal or Inflammatory (non-Headache) Pain.
- gabapentin (NEURONTIN) capsule
100 mg, Oral, EVERY 8 HOURS SCHEDULED (3 times per day), Use for Neuropathic Pain.

▼ Analgesics - Other

Estimated Creatinine Clearance: 28 mL/min (A) (based on SCr of 1.6 mg/dL (H)).
Ketorolac is contraindicated in patients with advanced renal impairment and in patients at risk of renal failure due to volume depletion.
For 65 years of age and older OR weight less than 50 kg, use 15 mg IV every 6 hr; MAX dose, 60 mg/day.

- ketorolac (TORADOL) injection
30 mg, Intravenous, EVERY 6 HOURS, for 8 doses

▼ Opioid

- ▶ Analgesics - Moderate/Severe - ORAL
- ▶ Analgesics - Moderate/Severe - IV

▼ Opioid

▼ Analgesics - Moderate/Severe - ORAL

HYDROcodone/APAP (MODERATE AND SEVERE) Pain Panel

HYDROcodone-acetaminophen (NORCO) 5-325 MG per tablet 1 tablet
1 tablet, Oral, EVERY 4 HOURS PRN, Pain Moderate (4-6), Starting Today at 1359
Maximum dose of acetaminophen is 4000 mg from all sources in 24 hours.

Or

HYDROcodone-acetaminophen (NORCO) 5-325 MG per tablet 2 tablet
2 tablet, Oral, EVERY 4 HOURS PRN, Pain Severe (7-10), Starting Today at 1359
Maximum dose of acetaminophen is 4000 mg from all sources in 24 hours.

- oxyCODONE/APAP (MODERATE AND SEVERE) Pain Panel
- oxyCODONE (MODERATE AND SEVERE) Pain Panel
- traMADol (MODERATE AND SEVERE) Pain Panel
- HYDROcodone 5 mg - acetaminophen tablet
1 tablet, Oral, EVERY 4 HOURS PRN
- oxyCODONE-acetaminophen (PERCOCET) tablet 5-325 mg
1 tablet, Oral, EVERY 4 HOURS PRN
- oxyCODONE (immediate release) (ROXICODONE) tablet
5 mg, Oral, EVERY 4 HOURS PRN
- traMADol (ULTRAM) tablet
50 mg, Oral, EVERY 6 HOURS PRN

▼ Analgesics - Moderate/Severe - IV

- morphine IV (MODERATE AND SEVERE) Pain Panel
- HYDROMorphone IV (MODERATE AND SEVERE) Pain Panel
- morphine injection
2 mg, Intravenous, EVERY 2 HOURS PRN
If oral and IV narcotics ordered, use oral first and only use IV if oral is ineffective or cannot take oral.
- HYDROMorphone (DILAUID) injection
0.5 mg, Intravenous, EVERY 3 HOURS PRN
If oral and IV narcotics ordered, use oral first and only use IV if oral is ineffective or cannot take oral.

Clinical Opiate Withdrawal Scale (COWS) Focused Order Set

Background

- Amid the increasing numbers of opioid-related overdoses and deaths, a growing number of patients with an opioid use disorder were presenting at Mercy's inpatient facilities
- There were few evidence-based, standardized tools to help guide their treatment, and any existing tools were not integrated into the EMR
- Lack of ability to manage the symptoms of these patients while admitted to our facilities complicated care
 - Increased burden of care on staff
 - Increased number of patients unable to complete necessary treatment for co-morbidities

Designing a Solution: Clinical Oversight

- A multidisciplinary group was formed within Mercy's existing clinical informatics structure
 - Clinical participants included Nursing, Pharmacy, and Physicians from specialties including Emergency Medicine, Internal Medicine, Behavioral Health, Addiction Medicine, as well as support from Mercy's Willow and Clinical Content Teams
- Outcomes of this group included:
 - Endorsement of the use of the Clinical Opiate Withdrawal Scale (COWS) for symptom assessment
 - Design the Opiate Withdrawal order set

Identified Gaps

- No standardized options existed to assess the severity of patients' opioid withdrawal symptoms
- Treatment options were limited
- Treatment varied widely from provider to provider

Designing a Solution: Opiate Withdrawal Focused Order Set

- Closely based on the evidence-based CIWA benzodiazepine-based alcohol withdrawal treatment protocol
- Designed with options for traMADol and cloNIDine or buprenorphine and cloNIDine-based therapy

Order Set Key Features

- Presence of buprenorphine
 - Required approval by Mercy Health Formulary Committee for use in order sets
 - Limited to 72-hour duration to make available to physicians without special prescribing authority to exceed 72 hours
- Combination of clonidine as adjunctive medication in linked panel with both buprenorphine and tramadol as treatment options
- Fixed dose strategy
 - COWS score dictated frequency of reassessment and follow-up doses
 - Avoided confusion of titrating various doses of medication
- Availability of medications for symptom management

Fixed Dose Interventions

COWS	Buprenorphine + CloNIDine	TraMADol + CloNIDine	Reassessment Interval
Less than 5 (No Withdrawal)	2 mg + 0.1 mg	50 mg + 0.1 mg	4 Hours
5 -12 (Mild)	2 mg + 0.1 mg	50 mg + 0.1 mg	2 hours
13-24 (Moderate)	2 mg + 0.1 mg	50 mg + 0.1 mg	90 min
25-36 (Moderately Severe)	2 mg + 0.1 mg	50 mg + 0.1 mg	1 hour
Above 36 (Severe)	2 mg + 0.1 mg	50 mg + 0.1 mg	30 min

Max Dose (24 hours)	12 mg + 2.4 mg	400 mg + 2.4 mg
---------------------	----------------	-----------------

Opiate Withdrawal Focused Order Set

GEN Opiate Withdrawal Focused Manage My Version 

Not intended to be used for Suboxone induction

General

▶ Notify Physician click for more

▶ Nurse Interventions click for more

Opiate assessment

Routine, ONE TIME First occurrence Today at 0715
Assess patient using Clinical Opiate Withdrawal Scale (COWS). For scores less than 5, assess COWS every 4 hours for 24 hours and then every 8 hours. For scores greater than or equal to 5, assess COWS PRN and as directed within medication parameters.

Medications

▶ Nicotine Replacement click for more

Medications

▼ Clinical Opiate Withdrawal Scale Medication Intervention

TraMADol and CloNIDine

Buprenorphine and CloNIDine

▼ Symptom Management

melatonin ER tablet
2 mg, Oral, NIGHTLY

dicyclomine (BENTYL) tablet
20 mg, Oral, EVERY 6 HOURS PRN, Abdominal Cramping

ibuprofen (ADVIL;MOTRIN) tablet
800 mg, Oral, EVERY 8 HOURS PRN, Myalgia, Administer with Food.

gabapentin (NEURONTIN) capsule
300 mg, Oral, EVERY 8 HOURS PRN, Neuropathic Pain

hydrOXYzine (VISTARIL) capsule
50 mg, Oral, EVERY 8 HOURS PRN, Anxiety, Lacrimation, Rhinorrhea

promethazine (PHENERGAN) tablet
25 mg, EVERY 6 HOURS PRN, Nausea, Restless Leg Symptoms

▶ Insomnia click for more

Medications

▼ Clinical Opiate Withdrawal Scale Medication Intervention

TraMADol and CloNIDine

traMADol (ULTRAM) tablet 50 mg

50 mg, Oral, PRN, Per COWS Assessment, Starting Today at 0718, For 72 hours
No withdrawal (COWS less than 5): No medication intervention and reassess COWS in four hours. Mild (COWS 5-12): Give 50 mg traMADol and 0.1 mg cloNIDine and reassess COWS in 2 hours (120 minutes). Moderate (COWS 13-24): Give 50 mg traMADol and 0.1 mg cloNIDine and reassess COWS in 1.5 hours (90 minutes). Moderately Severe (COWS 25-36): Give 50 mg traMADol and 0.1 mg cloNIDine and reassess COWS in 1 hour (60 minutes). Severe (COWS above 36): Give 50 mg traMADol and 0.1 mg cloNIDine and reassess COWS in 0.5 hours (30 minutes). Do not exceed 400 mg traMADol in any 24 hour period.

And

cloNIDine (CATAPRES) tablet 0.1 mg

0.1 mg, Oral, PRN, Other, Per COWS Assessment, Starting Today at 0718
Hold for SBP less than 90. No withdrawal (COWS less than 5): No medication intervention and reassess COWS in four hours. Mild (COWS 5-12): Give 50 mg traMADol and 0.1 mg cloNIDine and reassess COWS in 2 hours (120 minutes). Moderate (COWS 13-24): Give 50 mg traMADol and 0.1 mg cloNIDine and reassess COWS in 1.5 hours (90 minutes). Moderately Severe (COWS 25-36): Give 50 mg traMADol and 0.1 mg cloNIDine and reassess COWS in 1 hour (60 minutes). Severe (COWS above 36): Give 50 mg traMADol and 0.1 mg cloNIDine and reassess COWS in 0.5 hours (30 minutes). Do not exceed 2.4 mg cloNIDine in any 24 hour period.

Buprenorphine and CloNIDine

buprenorphine (SUBUTEX) SL tablet 2 mg

2 mg, Sublingual, PRN, Per COWS Assessment, Starting Today at 0718, For 72 hours
No withdrawal (COWS less than 5): No medication intervention and reassess COWS in four hours. Mild (COWS 5-12): Give 2 mg buprenorphine and 0.1 mg cloNIDine and reassess COWS in 2 hours (120 minutes). Moderate (COWS 13-24): Give 2 mg buprenorphine and 0.1 mg cloNIDine and reassess COWS in 1.5 hours (90 minutes). Moderately Severe (COWS 25-36): Give 2 mg buprenorphine and 0.1 mg cloNIDine and reassess COWS in 1 hour (60 minutes). Severe (COWS above 36): Give 2 mg buprenorphine and 0.1 mg cloNIDine and reassess COWS in 0.5 hours (30 minutes). Do not exceed 12 mg buprenorphine in any 24 hour period.

And

cloNIDine (CATAPRES) tablet 0.1 mg

0.1 mg, Oral, PRN, Other, Per COWS Assessment, Starting Today at 0718
Hold for SBP less than 90. No withdrawal (COWS less than 5): No medication intervention and reassess COWS in four hours. Mild (COWS 5-12): Give 2 mg buprenorphine and 0.1 mg cloNIDine and reassess COWS in 2 hours (120 minutes). Moderate (COWS 13-24): Give 2 mg buprenorphine and 0.1 mg cloNIDine and reassess COWS in 1.5 hours (90 minutes). Moderately Severe (COWS 25-36): Give 2 mg buprenorphine and 0.1 mg cloNIDine and reassess COWS in 1 hour (60 minutes). Severe (COWS above 36): Give 2 mg buprenorphine and 0.1 mg cloNIDine and reassess COWS in 0.5 hours (30 minutes). Do not exceed 2.4 mg cloNIDine in any 24 hour period.

Designing a Solution: Clinical Opiate Withdrawal Scale (COWS)

- Nursing assessment that evaluates 11 signs/symptoms
- Stratifies severity of opiate withdrawal
- Flowsheet built to auto-calculate score

Clinical Opiate Withdrawal Scale

Resting Pulse rate

GI upset over last 30 mins

Sweating over last 30 mins

Tremor observed in outreached hands

Restlessness observed during assessment

Yawning observed during assessment

Pupil size

Anxiety or Irritability

Bone or joint aches

Gooseflesh skin

Running Nose or tearing

Clinical Opiate Withdrawal Scale Score

Success Factors

- Participation of a multidisciplinary team of clinicians
- Comprehensive nursing and provider education prior to rollout of clinical content
 - Nursing “stand ups”, review of protocols, staff conferences on addiction and treatment
- Close collaboration with pharmacy and formulary committees
- Feedback from frontline staff on efficacy of the protocol
- Transition of patients to intensive outpatient therapy

Lessons Learned

- Engaging a multidisciplinary team in implementation is key
- Must have buy-in from top executives and frontline staff
- Engage often with internal and external stakeholders
- Develop a plan, assign responsibility and hold all involved accountable
- Allow enough time for training and education
- Capture the data and tell the story internally and externally
- Take full advantage of efficiencies provided by health information technology
- Provider involvement and engagement are critical for success
- Monitoring through operational and analytical reporting is vital for providing feedback to practices

Questions?

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