Electronic Prescribing of Controlled Substances and PDMP integration

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No financial relationships to disclose

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Topics

- Electronic prescribing
- Use of PDMPs in electronic prescribing
- Michigan Opioid Laws, CDC Guidelines and Prescribing Practice
Disc la imers

- No financial relationships to disclose
- Buprenorphine / Naltrexone provider, A2
- Medical Director Dawn Farm
- Consultant, DEA/DOJ
Electronic Prescribing Controlled Substances (EPCS)

- Started off as Computerized Physician Order Entry (CPOE)
  - Adopted during Meaningful Use
  - Allowed paper prescriptions
  - NO CS by CPOE initially; later adopted.
- ePrescribing
  - No authentication required after logon
  - No CS
- EPCS
Why EPC S?
Allergic to “naloxone”?
Getting started with EPCS: 4 steps

- Find out if your EHR has EPCS
- Identify proofing
- Two factor authentication
- Software access
Getting started with EPCS

- Find out if your EHR has EPCS
  - Inpatient vs outpatient
  - Software upgrade may be needed ($$$)
Getting started with EPCS

- Identify proofing
  - Private practice: EHR will walk you through security questions when EHR was purchased.
    - May require interview with vendor
  - Hospital practice: produce MI license and DEA
Getting started with EPCS

- Two factor authentication
Getting started with EPCS

- Two factor authentication
  - Two Step vs. Two Factor
  - Two Step:
    - Need password to log on to VPN (virtual private network), then password to log on to hospital server.
    - Google sign on using SMS (texting)
    - Claims of security breaches with SMS
Getting started with EPCS

- Two factor authentication
  - Two Step vs. Two Factor
  - Two Factor: something you know + something you have
Two Factor Authentication
Two Factor Authentication
Two Factor Authentication

NewCrop token is:

784 403

Your token expires in 15.

SECURITY CODE

838337
Getting started with EPCS

- Software access
- Requires endorsement by another prescriber who already has EPCS access.
To Send EPCS:
Authentication: requires password and token (two factor)
Dispensing History: confirms script sent
“fails”
Resistance to EPCS: New York

Why New York Doctors Have Not Deployed EPCS

- I’m concerned about the cost 9%
- I don’t want to disrupt my practice 12%
- My EMR is not ready 37%
- I resent the mandate 14%
- I don’t write many scripts 28%

Source: MSSNY Member E-Prescribing Survey, December 2015
Benefits of EPCS

- Literature on benefits in terms of O.D. etc is tied in to PDMPs. However:
- Improved patient safety
- Time savings (vs paper for CS and electronic for non-CS)
- Claims of savings: 15,769 per FTE*
- Increased security
- Reduced doctor shopping via medication module and PDMP review
- "Enables Prescriber Pattern Analysis"
- Enhances Patient Satisfaction **


Benefits of EPCS: DEA

- Stealing/printing prescription pads, and writing non-legitimate scrips.
- Altering a legitimate prescription to obtain a higher dose or more dosage units (change 10 to 40).
- Phoning in non-legitimate prescriptions late in the day when it is difficult for a pharmacy to complete confirmation call to the practitioner’s office; and
- Altering a prescription record at the pharmacy to hide diversion from pharmacy stock.
- Savings due to reduced number of phone calls, and elimination of storage of paper records (***)

Economic Impact Analysis of the Interim Final Electronic Prescription Rule.
168 Effect of New York State Electronic Prescribing Mandate on Opioid Prescribing Patterns

D. Danovich, J. Chacko, J. Greenstein, B. Ardolic, N. Berwald

Annals of Emergency Medicine
Volume 70, Issue 4, Pages S67-S68 (October 2017)
DOI: 10.1016/j.annemergmed.2017.07.195
<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Pre-NYM EPCS (N=1366)</th>
<th>Post-NYM EPCS (N=642)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arthralgia/Myalgia (p&lt;0.0001)</td>
<td>272 19.9%</td>
<td>115 17.9%</td>
</tr>
<tr>
<td>Back Pain (p&lt;0.0001)</td>
<td>178 13.0%</td>
<td>86 13.4%</td>
</tr>
<tr>
<td>Dental Pain (p&lt;0.0001)</td>
<td>157 11.5%</td>
<td>64 10.0%</td>
</tr>
<tr>
<td>Fracture (p=0.0015)</td>
<td>138 10.1%</td>
<td>90 14.0%</td>
</tr>
<tr>
<td>Soft Tissue Injury (p&lt;0.0001)</td>
<td>136 10.0%</td>
<td>55 8.6%</td>
</tr>
<tr>
<td>Urolithiasis (p=0.0169)</td>
<td>112 8.2%</td>
<td>79 12.3%</td>
</tr>
<tr>
<td>Abdominal Pain (p&lt;0.0001)</td>
<td>109 8.0%</td>
<td>46 7.2%</td>
</tr>
<tr>
<td>Other (p=0.0024)</td>
<td>64 4.7%</td>
<td>34 5.3%</td>
</tr>
<tr>
<td>Neuropathic Pain (p&lt;0.0001)</td>
<td>63 4.6%</td>
<td>21 3.3%</td>
</tr>
<tr>
<td>Genital Pain (p&lt;0.0001)</td>
<td>49 3.6%</td>
<td>15 2.3%</td>
</tr>
<tr>
<td>Abscess (p=0.0195)</td>
<td>35 2.6%</td>
<td>18 2.8%</td>
</tr>
<tr>
<td>Headache (p=0.0011)</td>
<td>18 1.3%</td>
<td>3 0.5%</td>
</tr>
<tr>
<td>UTI (p=0.1266)</td>
<td>14 1.0%</td>
<td>7 1.1%</td>
</tr>
<tr>
<td>Post-operative Pain (p=0.0455)</td>
<td>12 0.9%</td>
<td>4 0.6%</td>
</tr>
<tr>
<td>Corneal Abrasion (p=0.2850)</td>
<td>9 0.7%</td>
<td>5 0.8%</td>
</tr>
</tbody>
</table>

Figure 1. Prescriptions by diagnosis category Pre- and Post-NYM EPCS.
MAPS, the Michigan Opioid Laws, and the CDC Guidelines
### What is this NARx Score???

**NarxCare Report**

Report Prepared: 09/28/2018

**Risk Indicators**

**NARX SCORES**

<table>
<thead>
<tr>
<th>Narcotic</th>
<th>Sedative</th>
<th>Stimulant</th>
</tr>
</thead>
<tbody>
<tr>
<td>541</td>
<td>481</td>
<td>000</td>
</tr>
</tbody>
</table>

**OVERDOSE RISK SCORE**

550

(Range: 000-999)

**ADDITIONAL RISK INDICATORS (2)**

- 
  - > 5 opioid or sedative providers in any year in the last 2 years
  - > 100 MME total and 40 MME/day average

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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.
<table>
<thead>
<tr>
<th>NARx Score Range</th>
<th>Risk of Fatality</th>
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<tbody>
<tr>
<td>&lt;100</td>
<td>1</td>
</tr>
<tr>
<td>100-199</td>
<td>8</td>
</tr>
<tr>
<td>200-299</td>
<td>10</td>
</tr>
<tr>
<td>300-399</td>
<td>10</td>
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<tr>
<td>400-499</td>
<td>16</td>
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<tr>
<td>500-599</td>
<td>32</td>
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<tr>
<td>600-700</td>
<td>56</td>
</tr>
<tr>
<td>700-800</td>
<td>76</td>
</tr>
<tr>
<td>800-900</td>
<td>101</td>
</tr>
<tr>
<td>900-999</td>
<td>168</td>
</tr>
</tbody>
</table>

Drug-Related Overdose Death Rate by Overdose Risk Scores

As the overdose risk score increases, we see a corresponding increase in the drug-related overdose death rate.

Note: Excludes decedents whose death was prior to 2015, because 2 years of prescription history data not available. Overdose Risk Score is the maximum over the entire PDMP history for that patient.
Where there’s a will

<table>
<thead>
<tr>
<th>Fill Date</th>
<th>ID</th>
<th>Written</th>
<th>Drug</th>
<th>Qty</th>
<th>Days</th>
<th>Prescriber</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/10/2019</td>
<td>1</td>
<td>01/10/2019</td>
<td>Acetaminophen-Cod #3 Tablet</td>
<td>12</td>
<td>3</td>
<td>Sa Hur</td>
</tr>
<tr>
<td>01/09/2019</td>
<td>2</td>
<td>01/07/2019</td>
<td>Suboxone 8 Mg-2 MG SL Film</td>
<td>15</td>
<td>7</td>
<td>Ca Chr</td>
</tr>
</tbody>
</table>
What About Sedatives?

- Benzodiazepines: Xanax, Klonopin, Valium, Librium
- Sleepers: Ambien, Lunesta, Sonata
- Gabapentin, Pregabalin (Lyrica)
- Muscle Relaxers: Flexeril, Robaxin, Zanaflex
- SOMA
What are the RISKS of Sedatives?

- Benzodiazepines TRIPLE the risk of opioids if you currently use them.*
- They DOUBLE the risk even if you have stopped (?)*
- Benzodiazepines are associated with dementia**
- SOMA: part of the Holy Trinity (Soma, Norco, and Xanax)
- Benzodiazepines may paradoxically increase pain!***
- **Pregabalin (Lyrica)** is the most common non-opioid found to be involved in OD deaths (MAPS data)

*Park TW et al. BMJ 2015; 350:h2698
**Billioti de Gage S et al. BMJ 2012; 345 e 6231

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Number of Dispensations (N=103,214,576)</th>
<th>Total Patients(^1) (N=7,575,033)</th>
<th>Deaths(^2) (N=4,444)</th>
<th>Deaths per 1,000 Patients with a prescription(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n)</td>
<td>(n)</td>
<td>(n)</td>
<td></td>
</tr>
<tr>
<td>Narcotic(^4)</td>
<td>51,117,258</td>
<td>6,391,737</td>
<td>3366</td>
<td>0.52</td>
</tr>
<tr>
<td>Buprenorphine MAT</td>
<td>2,171,525</td>
<td>72,780</td>
<td>380</td>
<td>5.82</td>
</tr>
<tr>
<td>Sedative</td>
<td>31,028,518</td>
<td>2,849,423</td>
<td>2924</td>
<td>0.97</td>
</tr>
<tr>
<td>Stimulant</td>
<td>14,934,746</td>
<td>934,717</td>
<td>508</td>
<td>0.53</td>
</tr>
<tr>
<td>Neuropain</td>
<td>1,953,315</td>
<td>201,248</td>
<td>346</td>
<td>1.96</td>
</tr>
<tr>
<td>Ginarctic</td>
<td>373,205</td>
<td>116,584</td>
<td>64</td>
<td>0.52</td>
</tr>
<tr>
<td>Steroid</td>
<td>949,011</td>
<td>108,737</td>
<td>61</td>
<td>0.54</td>
</tr>
<tr>
<td>Cannabinoid</td>
<td>75,510</td>
<td>22,669</td>
<td>6</td>
<td>0.36</td>
</tr>
<tr>
<td>Unassigned</td>
<td>44,431</td>
<td>18,216</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Anesthetic</td>
<td>2,006</td>
<td>832</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Other</td>
<td>565,074</td>
<td>136,163</td>
<td>19</td>
<td>0.12</td>
</tr>
</tbody>
</table>

While the largest proportion of deaths are associated with narcotic (75.7%) and sedative (65.8%) dispensations, the controlled substances with the highest death rates are those for buprenorphine MAT (5.82 deaths per 1,000 patients), neuropain (1.96 deaths per 1,000 patients), and sedatives (0.97 death per 1,000 patients).
Michigan Opioid Laws and the CDC Guidelines: where did “7 days” come from?

- Michigan Law: 7 days CS prescription for acute pain with MAPS report, 3 days without.
- No automatic refills for schedule 3 meds.
- No pre written prescriptions for schedule 2 meds.
- NOTE: if you have to refill a schedule 2 prescription offsite, you MUST have EPCS!
Michigan Opioid Laws and the CDC Guidelines: where did “7 days” come from?

- CDC Guidelines (#6):
  - Long term opioid use often begins with treatment of acute pain.
  - When opioid are used for acute pain, clinicians should prescribe the **lowest effective dose of immediate-release (IR) opioid** and should prescribe no greater quantity than needed for the **expected duration of pain** severe enough to require opioid.
  - **Three days** or less will often be sufficient; **more than seven days** will rarely be needed.
Michigan Opioid Laws and the CDC Guidelines: where did “7 days” come from?

- Exclusions:
  - CHRONIC pain (put it on the scrip!)
  - End of life care
  - Cancer pain
Opioid selection, dosage duration, follow up and discontinuation: Guideline 6

- Note: it will be impossible to prescribe additional opioids offsite unless you have EPCS available.
  - Exception: schedule 3 meds: codeine, tramadol, buprenorphine.
- Do not prescribe ER/LA opioids for treatment of acute pain!
Effect of duration of first use

FIGURE 1. One- and 3-year probabilities of continued opioid use, by duration of first episode in weeks (base case)

Y axis: 
Percentage chance of being “hooked” (continued use)

X axis: Number of weeks for first opioid prescription

Duration is expressed in terms of weeks (1-26) with increments of 1 week. Discontinuation is defined as 180 opioid-free days and allowable gap to assess continuous opioid use in first episode was 30 days. One-week duration is defined as having an episode lasting 7 or more days.

MMWR, March 17, 2017/66 (10); 265-269
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1 week initial script = 5 to 15% of long term use!

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4 week initial script = 15 to 25% of long term use!

MMWR, March 17, 2017/66 (10); 265-269
What’s wrong with postop pain meds?

(Chad Brummet, MD) JAMA Surgery. 2017; 152 (6): e 170504

- Long term use of opioids after surgery did not depend on the TYPE of surgery (minor vs. major)!
- Overall, 6% of postop patients continued to use opioids.
- Risks for persistent opioid use:
  - Tobacco
  - Alcohol and Substance Use Disorders
  - Mood disorders
  - Anxiety
  - Dose (M.E.D.) did NOT matter*

First Narcotic Prescription and Future Use (no script x 1 year)

A large percentage of patients’ first narcotic prescription are written in Surgery (15.8%), ED/Urgent Care (14.3%), and Dentistry (16.1%), though these specialties make up 10.2%, 3.6%, and 7.0% of prescribers, respectively.

15.1% of patients are still filling narcotic prescriptions 6 months to 1 year after their first narcotic fill.


Excludes prescribers missing primary specialty classification. Other specialty includes specialties not classified elsewhere. Excludes patients whose first narcotics fill was in 2016, because 1 year of follow-up data not available. Incident narcotic prescriptions were written in 2014 or later; criteria used due to insufficient prescription data prior to 2013.
Decrease in oxycodone related mortality after PDMP-Florida
Opioid Overdose Deaths and Florida’s Crackdown on Pill Mills

Aimee Kennedy-Hendricks, PhD, Matthew Richey, PhD, Emma E. McGinty, PhD, MS, Elizabeth A. Stuart, PhD, Colleen L. Barry, PhD, MPP, and Daniel W. Webster, ScD, MPH

“Modest Decrease” in opioid prescriptions

doi:10.1001/jamainternmed.2015.3931 Published online August 17, 2015.
Prescriptions decreased, mortality increased: I-STOP

Drug and Alcohol Dependence
Volume 178, 1 September 2017, Pages 348-354

Full length article
Impact of New York prescription drug monitoring program, I-STOP, on statewide overdose morbidity

Richard Brown a, Moira R. Riley b, A, Lydia Ulrich c, Ellen Percy Kraly d, Paul Jenkins b, Nicole L. Krupa b, Anne Gadomska b
PDMP: decrease in pills, no increase in mortality
PUBLIC HEALTH CODE (EXCERPT) Act 368 of 1978

- (4) A person that receives data or any report under subsection (2) containing any patient identifiers of the system from the department shall not provide it to any other person except by order of a court of competent jurisdiction.
Does HIPAA provide extra protections for mental health information compared with other health information?

- Generally, the Privacy Rule applies uniformly to all protected health information, without regard to the type of information. One exception to this general rule is for psychotherapy notes, which receive special protections.

- Psychotherapy notes are treated differently from other mental health information both because they contain particularly sensitive information and because they are the personal notes of the therapist that typically are not required or useful for treatment, payment, or health care operations purposes, other than by the mental health professional who created the notes.

FDA identifies harm reported from sudden discontinuation of opioid pain medicines and requires label changes to guide prescribers on gradual, individualized tapering

Safety Announcement

[4-9-2019] The U.S. Food and Drug Administration (FDA) has received reports of serious harm in patients who are physically dependent on opioid pain medicines suddenly having these medicines discontinued or the dose rapidly decreased. These include serious withdrawal symptoms, uncontrolled pain, psychological distress, and suicide.
While we continue to track this safety concern as part of our ongoing monitoring of risks associated with opioid pain medicines, we are requiring changes to the prescribing information for these medicines that are intended for use in the outpatient setting. These changes will provide expanded guidance to health care professionals on how to safely decrease the dose in patients who are physically dependent on opioid pain medicines when the dose is to be decreased or the medicine is to be discontinued.
Rapid discontinuation can result in uncontrolled pain or withdrawal symptoms. In turn, these symptoms can lead patients to seek other sources of opioid pain medicines, which may be confused with drug-seeking for abuse. Patients may attempt to treat their pain or withdrawal symptoms with illicit opioids, such as heroin, and other substances.
EXECUTIVE SUMMARY

PAIN MANAGEMENT BEST PRACTICES
INTER-AGENCY TASK FORCE REPORT

Updates, Gaps, Inconsistencies, and Recommendations

FINAL REPORT

https://www.hhs.gov/ash/advisory-committees/pain/reports/index.html
Pain Management Best Practices: Inter-agency Task Force Report

- **A review of the CDC Guideline** (as mandated by the Comprehensive Addiction and Recovery Act legislation): The Task Force recognizes the utility of the 2016 Guideline for Prescribing Opioids for Chronic Pain released by the CDC and its contribution to mitigating unnecessary opioid exposure and the adverse outcomes associated with opioids.
Pain Management Best Practices: Inter-agency Task Force Report

- It also recognizes unintended consequences that have resulted following the release of the guidelines in 2016, which are due in part to misapplication or misinterpretation of the guideline, including forced tapers and patient abandonment.
The CDC recently published a pivotal article in the New England Journal of Medicine on April 24, 2019, specifically reiterating that the CDC Guideline has been, in some instances, misinterpreted or misapplied. The authors highlight that the guideline does not address or suggest discontinuation of opioids prescribed at higher dosages.
Questions?