Instituting an Opioid QA Program in Your Emergency Department
Presenter

Scott Weiner, MD, MPH
Disclosures & Disclaimer

Scientific Advisory Board:
General Emergency Medical Supplies, Corp
Epidemic Solutions, LLC

Grant Funding:
Yale/APF, Pew, MITRE

Presenter- Scott G. Weiner, MD, MPH
Why Introduce an Opioid QA Program?
Total number of prescriptions dispensed in the U.S. by top 10 prescribing specialties for IR and ER/LA opioids, Year 2009


- GP/FM/DO, and IM were top 2 prescribers for IR and ER/LA opioids
- IR opioid prescribers:
- Dentists and EM specialists accounted for about 18 million and 11 million IR dispensed prescriptions
## Opioid Prescriptions by Specialty in Ohio, 2010–2014

Scott G. Weiner, MD, MPH;‡ Olesya Baker, PhD;‡ Ann F. Rodgers, MD, MPH;‡ Chad Garner, MS;‡ Lewis S. Nelson, MD;‡ Peter W. Kreiner, PhD;‡ and Jeremiah D. Schuur, MD, MHS

Results. There were 56,873,719 prescriptions dispensed, for which a prescriber was identified for the study period. The study population consisted of 73.8% of inpatients and 26.2% of outpatients. The number of opioid prescriptions per prescriber ranged from 1 to 122.

### Table 1 Numbers of prescriptions, pills per prescription and morphine milligram equivalents per prescription, stratified by primary specialty type of the prescriber, Ohio, 2010–2014

<table>
<thead>
<tr>
<th>Specialty</th>
<th>No. of prescriptions</th>
<th>Percentage of prescriptions</th>
<th>Mean No. of pills per prescription (SD)</th>
<th>Median No. of pills per prescription (IQR)</th>
<th>Percentage of pills</th>
<th>Mean MMEs per prescription (SD)</th>
<th>Median MMEs per prescription (IQR)</th>
<th>Percentage of MMEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family medicine</td>
<td>12,382,570</td>
<td>21.8</td>
<td>78.3 (50.7)</td>
<td>60 (30–120)</td>
<td>26.5</td>
<td>850.3 (1,478.3)</td>
<td>450 (225–900)</td>
<td>25.1</td>
</tr>
<tr>
<td>Internal medicine</td>
<td>9,990,843</td>
<td>17.6</td>
<td>75.3 (50.2)</td>
<td>60 (30–100)</td>
<td>20.6</td>
<td>770.7 (1,328.5)</td>
<td>450 (225–900)</td>
<td>18.4</td>
</tr>
<tr>
<td>Other</td>
<td>4,317,831</td>
<td>7.6</td>
<td>40.8 (37.1)</td>
<td>30 (16–60)</td>
<td>4.8</td>
<td>375.5 (800.6)</td>
<td>150 (100–337.5)</td>
<td>3.9</td>
</tr>
<tr>
<td>Orthopedic surgery</td>
<td>3,316,383</td>
<td>5.8</td>
<td>54.4 (29.2)</td>
<td>50 (40–60)</td>
<td>4.9</td>
<td>456.1 (910.5)</td>
<td>300 (200–450)</td>
<td>3.6</td>
</tr>
<tr>
<td>Anesthesiology/pain</td>
<td>3,261,449</td>
<td>5.7</td>
<td>89.3 (44.0)</td>
<td>90 (60–120)</td>
<td>8.0</td>
<td>1,483.8 (1,784.4)</td>
<td>678 (450–1,800)</td>
<td>11.5</td>
</tr>
<tr>
<td>Emergency medicine</td>
<td>2,817,842</td>
<td>5.0</td>
<td>20.8 (19.0)</td>
<td>20 (12–20)</td>
<td>1.6</td>
<td>172.5 (563.0)</td>
<td>100 (75–135)</td>
<td>1.2</td>
</tr>
<tr>
<td>Specialty surgery</td>
<td>2,000,478</td>
<td>3.5</td>
<td>44.9 (31.3)</td>
<td>30 (30–60)</td>
<td>2.5</td>
<td>399.5 (721.7)</td>
<td>225 (150–375)</td>
<td>1.9</td>
</tr>
<tr>
<td>Physical medicine</td>
<td>1,680,579</td>
<td>3.0</td>
<td>91.2 (48.9)</td>
<td>90 (60–120)</td>
<td>4.2</td>
<td>1,531.8 (2,050.9)</td>
<td>675 (450–1,800)</td>
<td>6.1</td>
</tr>
<tr>
<td>Gynecology</td>
<td>903,273</td>
<td>1.6</td>
<td>34.7 (25.8)</td>
<td>30 (20–40)</td>
<td>0.9</td>
<td>307.5 (734.6)</td>
<td>150 (135–225)</td>
<td>0.7</td>
</tr>
<tr>
<td>Neurology</td>
<td>573,389</td>
<td>1.0</td>
<td>84.4 (49.7)</td>
<td>90 (50–120)</td>
<td>1.3</td>
<td>1,299.8 (1,773.9)</td>
<td>600 (300–1,350)</td>
<td>1.7</td>
</tr>
<tr>
<td>Hematology/oncology</td>
<td>516,596</td>
<td>0.9</td>
<td>88.2 (48.0)</td>
<td>90 (60–100)</td>
<td>1.2</td>
<td>1,534.4 (2,195.6)</td>
<td>750 (450–1,800)</td>
<td>1.9</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>198,348</td>
<td>0.3</td>
<td>46.8 (42.6)</td>
<td>30 (16–60)</td>
<td>0.3</td>
<td>535.6 (1,120.3)</td>
<td>150 (90–450)</td>
<td>0.3</td>
</tr>
<tr>
<td>Missing</td>
<td>14,914,138</td>
<td>26.2</td>
<td>56.9 (48.8)</td>
<td>40 (20–90)</td>
<td>23.2</td>
<td>672.6 (1,438.5)</td>
<td>225 (100–630)</td>
<td>23.9</td>
</tr>
</tbody>
</table>

IQR = interquartile range; MME = morphine milligram equivalent.
19 Hospitals, national sample

12% of all adult patient visits result in an opioid prescription

Vast majority were oxycodone and hydrocodone, immediate release, 5 mg

Mean number of pills was 17/prescription
Medical Expenditure Panel Survey

- Office-based Rx = 71% in 1996 and 83% in 2012
- ED-based Rx = 7.4% in 1996 and 4.4% in 2012
- EDs = 2.4% of total morphine equivalents
- Only 0.3% ED Rx were for >100 MME per day vs. 2.6% in office setting
Emergency Medicine’s Role in Prescription Opioid Abuse

By Scott G. Weiner, MD, MPH, FAAEM, FACEP | on July 15, 2015 | 5 Comments

As a member of the board of the Massachusetts College of Emergency Physicians, I get the opportunity to review legislation that is put forth at the state level that would affect care of patients in the ED. Our legislative consultant brings the bills, and our group decides what position to take on the proposed legislation. This season, I was taken aback by a single-line bill, introduced by a state representative, that read: “A physician practicing in an emergency room shall not be permitted to provide to a patient seeking emergency care more than 72 hours’ worth of a controlled substance as defined by this chapter.”

My first thought upon seeing the text was, I’ll just ask my physician assistant colleagues to write opioid prescriptions for me, as they would not be excluded under the law—just another illustration that lawmakers need education about the realities of how medicine is practiced. My second thought was, How did it come to this? How did the pendulum swing so far that legislators want to severely limit how emergency physicians write prescriptions for pain medications?

“A physician practicing in an emergency room shall not be permitted to provide to a patient seeking emergency care more than 72 hours’ worth of a controlled substance as defined by this chapter.”
Ohio PDMP

- Median morphine milligram equivalent (MMEs) per prescription was 100 (IQR 75-125)
- Only 12,639 prescriptions (0.04%) were for extended release formulations
Opioid Prescribing in a Cross Section of US Emergency Departments

Jason A. Hoppe, DO; Lewis S. Nelson, MD; Jeanmarie Perrone, MD; Scott G. Weiner, MD, MPH*; for the Prescribing Opioids Safely in the Emergency Department (POSED) Study Investigators

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2012

19 hospitals

17% discharged patients got an opioid

Mean pill count 17
In some instances, the prescribing of opioid analgesics in EDs might not be optimal in terms of minimizing the risk of their misuse. Guidelines for the cautious use of opioid analgesics in EDs and timely data from prescription drug monitoring programs could help EDs treat patients with pain while reducing the risk of nonmedical use.
● Compared low-intensity (lowest quartile) to high-intensity (highest quartile) EPs within each department

● Medicare patients
  Long-term use OR was 1.3 for patients treated by high-intensity prescribers

● Wide variation in prescribing rates (7.3% low, 24.1% high)
Opioid Prescribing for Opioid-Naive Patients in Emergency Departments and Other Settings: Characteristics of Prescriptions and Association With Long-Term Use

Molly Moore Jeffery, PhD; W. Michael Hooten, MD; Erik P. Hess, MD, MS; Ellen R. Meera, PhD; Joseph S. Ross, MD, MHS; Henry J. Hink, PhD; Bjorg Borgundvaag, PhD, MD; Nilay D. Shah, PhD; M. Fernando Beltola, MD, MS
*Corresponding Author. E-mail: jeffery.molly@mayo.edu; Twitter: @mollyjeffery.

5.2 million rx – opioid rx from ED were of lesser dose and duration and half as likely to lead to long-term use as other settings

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Commercial Adjusted Proportion, % (95% CI)</th>
<th>Aged Medicare Adjusted Proportion, % (95% CI)</th>
<th>Disabled Medicare Adjusted Proportion, % (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescription for &gt;3 days' supply</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-ED</td>
<td>65.9 (65.9–66.0)</td>
<td>74.6 (74.4–74.7)</td>
<td>76.8 (76.4–77.1)</td>
</tr>
<tr>
<td>Unknown</td>
<td>47.2 (47.1–47.3)</td>
<td>56.3 (56.0–56.6)</td>
<td>61.9 (61.1–62.7)</td>
</tr>
<tr>
<td>ED</td>
<td>37.0 (36.9–37.1)</td>
<td>41.6 (41.3–41.9)</td>
<td>36.7 (36.0–37.5)</td>
</tr>
<tr>
<td>Prescription for &gt;7 days' supply</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-ED</td>
<td>19.1 (19.0–19.1)</td>
<td>36.7 (36.5–36.8)</td>
<td>42.5 (42.1–42.9)</td>
</tr>
<tr>
<td>Unknown</td>
<td>7.7 (7.7–7.8)</td>
<td>20.4 (20.1–20.7)</td>
<td>28.2 (27.4–28.9)</td>
</tr>
<tr>
<td>ED</td>
<td>3.1 (3.1–3.1)</td>
<td>4.5 (4.3–4.6)</td>
<td>3.9 (3.6–4.2)</td>
</tr>
</tbody>
</table>
Sometimes We Do Start the Fire…
59 patients reporting heroin or nonmedical opioid use
35 (59%) reported first exposure was a legitimate prescription

For 10 of 35 (29%) the prescription came from the ED

“Although short-term opioid administration by EPs is unlikely to cause addiction by itself, ED opioid prescriptions may contribute to the development of addiction in some patients.”
4801 patients with minor painful condition over 1 year
52% opioid naïve (no prescription in the year prior to visit)

299 (12%) of opioid naïve patients went on to have recurrent use

“Opioid naïve ED patients prescribed opioids for acute pain are at increased risk for additional opioid use at 1 year.”
2887 ED patients with acute onset low back pain
349 (12%) received an early opioid prescription

After multivariable adjustment, early opioids associated with higher long-term use of opioids (22% vs 16%).

“Early opioid prescribing in the ED for uncomplicated LBP increased long-term opioid use and medical costs, and should be discourage.”
948 patients with MVA
No difference in risk for moderate to severe musculoskeletal pain at 6 weeks

Participants prescribed opioid were more likely than those to report persistent use than those prescribed only NSAIDS (risk difference 17.5%)

“Analgesic choice at ED discharge does not influence the development of persistent moderate to severe musculoskeletal pain 6 weeks after an MVC, but may result in continued use of prescription opioids.”
NHAMCS - Between 2001-2010:
- Painful conditions 47.1% to 51.1%
- Non-opioids 26.2% to 27.3%
- Opioid use increased from 20.8% to 31.0% of all visits
- Use of schedule II 7.6% to 14.5%
Benchmarking

“YOU CAN’T MANAGE WHAT YOU DON’T MEASURE.”
- W. Edward Deming

“Your system is perfectly designed to give you the results you’re getting.”
- W.E. Deming

“Without data you’re just another person with an opinion”
- W. Edwards Deming
Retrospective Look

Share old data +
“We’re going to start looking”

“We’re going to compare you to your peers”

Figure 1. Mean stage physician prescribing rates and corresponding standard errors by stage of intervention.

Burton JH, et al. WJEM 2016;17:258-63
Attendings, residents, APPs randomized to no intervention or data-driven intervention.

65% underestimated their opioid prescribing
1. Opioid prescriptions should be limited to the shortest duration possible; three days or less will be sufficient in most cases (up to seven days may be appropriate in certain circumstances).

2. All patients should be educated about opioid-specific risks and realistic benefits when considering an opioid prescription, with particular attention to high risk groups including adolescents, pregnant women, elderly and those with a history of substance use disorder.

3. Non-opioid pain relievers should be recommended and/or prescribed prior to and concurrent with opioids as appropriate.

4. The state Prescription Drug Monitoring Program (PDMP) should be checked prior to prescribing an opioid, when feasible.
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4. The state Prescription Drug Monitoring Program (PDMP) should be checked prior to prescribing an opioid, when feasible.
5. Educate patients about the risks associated with concurrent use of opioids and benzodiazepines and avoid co-prescribing whenever possible.

6. Opioid prescriptions generally should not be written for chronic pain unless there is coordination with the patient’s primary pain treating clinician.

7. Prescriptions for long-acting/extended-release opioids for the treatment of pain should not be initiated from the ED.

8. Lost, destroyed or stolen opioid prescriptions should not be refilled.
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Steps to Take

• Engage providers for buy-in and explain rationale
• Collect data
• Make a decision re: identified vs. de-identified
• Decide on format
• Do not tie to financial incentives
• Patient satisfaction/pain scores
Rx by Opioid
Sample Report

Opioids prescribed on discharge from the ED 7/1/16 - 8/31/17

Group average

Provider 1

# Opioids/1000 discharges

EM Physician
Average # of tabs per Opioid Rx from 7/1/16-8/31/17

- Group Average
- Provider 1
Rate of Opioid Prescriptions per 1000 Discharges

Mean Pills per Prescription
Number of Discharges with Opioid Prescriptions per 1,000 Discharges (C-II & C-III Only)
Time Period: Jan 1, 2017 - Dec 31, 2017

Number of Discharges with Opioid Prescriptions per 1,000 Discharges
Thank you!

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For More Information

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The E-QUAL Opioid Initiative is funded by the Addiction Policy Forum. The sponsor had no role in the development of this content or quality improvement offering, and the views expressed are of the speaker.