Safe Opioid Prescribing: Implementation of a critical imperative

Padma Gulur MD
Professor of Anesthesiology
Vice Chair, Operations and Performance
Duke Anesthesiology
Disclosures

NONE

I have no financial interest of any nature or kind in any product, service or company that could be construed as influencing the material presented.
Learning Objectives:

• Understand the impact of regulatory guidelines on patient access and provider workload.

• Evaluate health system strategies to enhance safe opioid prescribing in high efficiency clinical care models with minimal impact on provider workflow.

• Describe resources available to support patients and providers optimize pain management
The U.S. makes up 4.6 percent of the world’s populations but consumes 81 percent of the world supply of oxycodone.

4.3 million adolescents and adults reported non-medical use of prescription opioids in 2014.

4 out of 5 heroin users started on prescription opioids.

1.9 million Americans are addicted to opioid painkillers.
CDC Guidelines 2016: Safe Opioid Prescribing Initiative

• Prescribing Opioids for Chronic Pain for Primary Care Providers in 2016 to provide consistent safe opioid prescribing guidelines

Among the 12 recommendations in the Guideline, there are three principles that are especially important to improving patient care and safety:

- Nonopioid therapy is preferred for chronic pain outside of active cancer, palliative, and end-of-life care.

- When opioids are used, the lowest possible effective dosage should be prescribed to reduce risks of opioid use disorder and overdose.

- Clinicians should always exercise caution when prescribing opioids and monitor all patients closely.
Persistent Opioid Use

Higher doses of opioids are associated with higher risk of overdose and death.

Even relatively low dosages—considered to be 20 to 50 morphine milligram equivalents (MME) per day—increase risk.

As such, the guideline recommends starting with the lowest effective dosage, and carefully considering dosages above 50 or 90 MMEs per day.

For treating acute pain, the guideline recommends a quantity no greater than what is needed for the expected duration of pain severe enough to require opioids, specifying that three days or less will often be sufficient and more than seven days will rarely be needed.

Source: Centers for Disease Control and Prevention, 2017
Role of Prescribing Opioids and Overdose Deaths

Legislation limiting opioid prescriptions debuted early in 2016, with Massachusetts passing the first law in the nation.

By the end of 2016, seven states had passed legislation limiting opioid prescriptions, and the trend continued in 2017.

More than 30 states considered at least 130 bills related to opioid prescribing in 2016 and 2017.

24 states had enacted legislation with some type of limit, guidance or requirement related to opioid prescribing by December 2017.
**Additional State Laws and Regulations**

More than 1,300 bills on opioid related topics from 2015 to 2017.

**NALOXONE**
- Allowed third-party prescriptions,
- Naloxone standing orders
- Pharmacists to dispense naloxone without a prescription.
- Expanded who is allowed to carry and use naloxone, such as family and friends, school personnel, law enforcement and emergency/first responders.

**PDMP**
- Mandate PDMP registration for providers,
- Determine who can access the PDMP on behalf of prescribers,
- Set the length of time within which to report dispensing of prescriptions,
- Establish requirements for checking the PDMP before prescribing.

**PAIN CLINICS**
State legislators have also considered legislation related to pain clinics—facilities that specialize in treating chronic pain. Pain clinic laws often focus on licensing, regulation or other requirements.

**Provider Education**
States have also created requirements for training or education for providers related to opioids, such as training in prescribing controlled substances, pain management and identifying substance use disorders.
New CME requirement

• NCMB has a new requirement for physicians and PAs to earn CME in controlled substances prescribing – Total of 3 hours in your CME cycle (eg: 3 years for Physicians)

Primary objectives:
• Reduce inappropriate opioid prescribing and associated patients deaths and harm
• Improve quality of care
• Effective date: July 1, 2017

REQUIRED TOPICS
• Controlled substances prescribing
• Chronic pain management
• Avoiding abuse/diversion

States with pain CME requirements:
California  North Carolina
Massachusetts
Iowa
Texas
Oregon
Rhode Island
West Virginia
Prescription Drug Monitoring Programs (PDMP): Data Submission Interval and Mandatory Use Requirements

* Includes states in which prescribers are required to check the PDMP before writing most initial prescriptions for opioids, as well as when a check is required in select circumstances.
* CT, ME, ND and WI have recently passed laws requiring providers to perform an initial check, which go into effect between 2016 and 2018. ND requires dispensers to check the PDMP before dispensing opioids in certain circumstances.

Sources: Centers for Disease Control and Prevention, Prevention Status Report, 2016; National Alliance for Model State Drug Laws, 2015; PDMP Training and Technical Assistance Center, 2016
E-Prescribing

How Does Your State Rank?

Electronic Prescribing of Controlled Substances

- Top 10
- Bottom 10

E-PRESCRIBING

Pharmacies that are able to receive electronic prescriptions for controlled substances

Prescriptions ready to e-prescribe

70%

6%
Storage and Disposal

Proper Storage and Disposal of Prescription opioids and other controlled substances.

Keep your medication in the container it came in, tightly closed, and out of reach of children in a locked location. Talk to your pharmacist about the proper disposal of your medication. In addition below are resources you can use to safely dispose of your medications.

What to do with Leftover Medicines

NORTH CAROLINA

Follow the links below to find locations and guidance for safe drug take-back and disposal options in your state.

1 Talk to your patients! More than 70 percent of people misusing opioid analgesics are getting them from family and friends—sharing opioids is illegal and may be deadly.

2 Remind your patients! Store medicines out of reach from children and never share prescription(s) with anyone.

3 Urge your patients to safely dispose of expired, unwanted and unused medications! Recommend patients use pharmacy and law enforcement “take back” resources whenever possible.

Why does proper opioid disposal matter?

Protecting Family and Friends
2/3 of teens who report prescription abuse get the medicines from friends, family and acquaintances.
1 in 4 children died and 16,000 were treated in the ER for drug poisoning in 2009.1

Preserving Health
Expired drugs aren’t just ineffective, they can also be harmful to take.

Defending the Environment
Most waste-water treatment facilities can’t filter out many drugs.2

Indicates that a collection site is located within a police station/law enforcement facility.

Indicates that a collection site is located within a pharmacy.
Historical Perspectives
“In two persons suffering apparently from the same kind of injury, and with the same detriment, one will writhe with agony, whilst the other will smile with contempt.”

Relationship of Significance of Wound to Pain Experienced

• The frequency of pain severe enough to require a narcotic was studied in 150 male civilian patients and contrasted with similar data from a study of wartime casualties.

• The percentages of patients desiring narcotics were 32 and 83 for the military and the civilian groups respectively.

• The intensity of suffering is largely determined by what the pain means to the patient.

• It also means that the indiscriminate administration of powerful analgesics to all injured individuals is unsound.

Henry K. Beecher, M.D., Boston
Current understanding of Pain
What we are Beginning to Understand…

- Pain is influenced by many interacting processes

- The relationship between injury and pain is highly variable.

- Knowledge of etiology of pain is not sufficient to tell us how much pain a person will have or how much it will debilitate them.
Biomedical Approach – Analgesic agent based
Analgesic Selection

• The appropriate choice of analgesic agent is best guided by the severity of the pain.

• For mild to moderate pain, use of non-opioids like acetaminophen, ibuprofen or another non-steroidal anti-inflammatory drug (NSAID) may provide adequate pain relief.

• For moderate to severe pain, use of an opioid analgesic may be necessary.

• Understanding the types of pain allows for optimal pharmacologic treatment
  
  Treat Nociceptive pain with nonsteroidal anti-inflammatory drugs (NSAIDs)
  
  Neuropathic pain responds to neuropathic pain medications such as gabapentin or pregabalin
Optimize Use of Adjuncts

• NSAIDs
• COX-2 inhibitors
• Acetaminophen
• Neuropathic pain medications
• Regional anesthesia/analgesia
Neuropathic Pain Medications

• Antidepressants
  • TCAs: amitriptyline, nortriptyline
  • SNRI’s like Venlafaxine and Duloxetine

• Anticonvulsants
  • Gabapentin, Pregabalin (Lyrica)

• Others like Ketamine, Lidocaine etc
Treatment of Severe Pain with Opioids
Titrating Doses of Opioid Analgesics

• To optimally calculate and titrate doses, it’s often easiest to convert to "oral morphine equivalents" (convert all opioids to same amount that would be given in oral morphine)

• If using online calculators verify reliability of the source

Choice of Opioid influences Outcomes

Morphine is less ‘reinforcing’ or ‘likable’ than Hydromorphone and preferred in patients with risk factors for dependence/addiction.
Opioids - Unique Challenges
Opioid Induced Hyperalgesia

• Defined as a state of nociceptive sensitization caused by exposure to opioids.
• The condition is characterized by a paradoxical response whereby a patient receiving opioids for the treatment of pain could actually become more sensitive to certain painful stimuli.
• The type of pain experienced might be the same as the underlying pain or might be different from the original underlying pain.
• Could explain loss of opioid efficacy in some patients.

Opioid Related Adverse Events

Journal of Palliative Care, Oderda et al

• Large-scale analysis of a national database of patients from 380 hospitals in the United States who underwent 319,898 inpatient surgeries and received opioids for postsurgical pain management.

Key findings

• Were hospitalized 3.3 days longer than patients without an ORAE (7.6 days vs. 4.2 days, P<0.0001)

• Had a $4,707 mean increase from the baseline hospitalization cost compared to patients without an ORAE ($22,077 vs. $17,370, P<0.0001)

• Had a significantly greater 30-day, all-cause readmission rate (15.8 percent vs. 9.4 percent, P<0.0001) compared to patients without an ORAE

Post operative use of Opioids in Urology
Duke IRB approved Study

- 99 nephrectomy and prostatectomy cases performed during January to March 2017.
- 61 of these patients agreed to answer our survey questions.
- Most patients received a standard prescription for Oxycodone 5mg tabs, quantity 30 at discharge.
- On average patients used 30% of their prescription.
- The few patients that used all of their prescriptions, did so either because they suffer from chronic pain or they misunderstood PRN and took it scheduled.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td># pills used</td>
<td>13</td>
</tr>
<tr>
<td>% prescription used</td>
<td>36</td>
</tr>
</tbody>
</table>
Pain management in the Substance User

1. Opioid tolerance can be with acute exposure as well as chronic exposure to opioids. The patients increasing requirements usually help define their tolerance.

2. Opioid tolerant patients should be continued on their home dose long acting medications and will require higher doses and frequency of short acting opiates to manage their acute pain.

3. For patients on Methadone maintenance programs, continue their methadone at home doses and treat the acute pain with other opioids just like other opioid tolerant patients.

4. For patients on Suboxone, for elective procedures discontinue it and replace with full opioid agonist prior to the procedure. For emergencies continue the suboxone and realize they will require high doses of opioid agonists in a monitored settings.
Discussion

Questions

Winner of the "Not My Job" Award - ADOT
Litchfield Park, AZ 85