In an Opioid Crisis, How Can Pharmacists Ease The Pain?

Austin Area Society of Health-System Pharmacists
June 13, 2018

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Objectives: Pharmacists

At the completion of this activity, the participant will be able to:

- Describe the opioid epidemic
- Analyze the CDC guideline recommendations on chronic opioid prescribing
- Distinguish interventions that may reduce opioid-related harms
- Discuss how pharmacists can play a role in the opioid crisis

Objectives: Pharmacy Technicians

At the completion of this activity, the participant will be able to:

- State the opioid epidemic
- Recall key recommendations from the CDC guideline for chronic opioid prescribing
- Identify interventions that may reduce opioid-related harms
- List how pharmacists can play a role in the opioid crisis

Presentation Overview

- Opioid Crisis
- Chronic Pain
- CDC Recommended Guidelines
- Validated Pain Scales
- Pain management
- Opioid harm reduction
- Post-Presentation Questions

Opioid Overdose Crisis

- According to the National Institute on Drug Abuse
  - Everyday > 115 people in the United States die from opioid overdose
  - The Centers for Disease Control and Prevention estimates that the total "economic burden" of prescription opioid misuse alone in the United States is $78.5 billion a year
  - Approximately 21 to 29 percent of patients taking opioids for chronic pain misuse them
  - Between 8 to 12% will develop an opioid disorder
  - Opioid overdoses increased 30% from July 2016 through September 2017 in 52 areas in 45 states
- October 2017: President Trump declared the opioid crisis a public health emergency

National Institute on Drug Abuse

Definitions

- Acute
  - Sudden and caused by something specific
    - Surgery
    - Broken bones
    - Dental work
    - Burns or cuts
    - Labor and childbirth
- Chronic
  - Usually lasts longer than 3-6 months and can last for years
  - Can continue after acute pain
    - Headache
    - Arthritis
    - Cancer
    - Nerve Pain
    - Back Pain
    - Fibromyalgia

Institute for Chronic Pain. Chronic Pain Syndrome Accessed 1/26/2017.
NIH. Pain Management: Acute and Chronic. Accessed 1/26/2017.

Background: Chronic Pain

- Definition: Generally defined as daily pain lasting 3 or more months or beyond the time of normal tissue healing
- 2011 National Health Interview Survey's Functioning and Disability Supplement, estimates 11.2% of adult U.S. population experience daily chronic pain
- Chronic pain is associated with multiple comorbidities, including, among others, impaired memory, cognition, and attention; sleep disturbances; reduced physical functioning; and reduced overall quality of life

National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Health Sciences Policy; Committee on Pain Management and Regulatory Strategies to Address Prescription Opioid Abuse; Phillips JK, Ford MA, Bonnie RJ, editors. Washington (DC): National Academies Press (US); 2017 Jul 13.

2016 CDC Guidelines for Prescribing Opioids for Chronic Pain

CDC Guidelines

- 2016 Guidelines
  - 3 categories, 12 recommendations
- Areas for consideration
  1. Determining when to initiate or continue opioids for chronic pain.
  2. Opioid selection, dosage, duration, follow-up, and discontinuation.
  3. Assessing risk and addressing harms of opioid use.

Houry D, Baldwin G. Announcing the CDC guideline for prescribing opioids for chronic pain. J Safety Res. 2016;57:83-4

1) Determining when to initiate or continue opioids for chronic pain

- 1. Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate

1) Determining when to initiate or continue opioids for chronic pain

- 2. Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how opioid therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety

1) Determining when to initiate or continue opioids for chronic pain

- 3. Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy

2) Opioid Selection, Dosage, Duration, Follow-Up, and Discontinuation

- 4. When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids

2) Opioid Selection, Dosage, Duration, Follow-Up, and Discontinuation

- 5. When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when considering increasing dosage to ≥50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to ≥90 MME/day

2) Opioid Selection, Dosage, Duration, Follow-Up, and Discontinuation

- 6. Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed

2) Opioid Selection, Dosage, Duration, Follow-Up, and Discontinuation

- 7. Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation. Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently. If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids

3) Assessing Risk and Addressing Harms of Opioid Use

- 8. Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥50 MME/day), or concurrent benzodiazepine use, are present

3) Assessing Risk and Addressing Harms of Opioid Use

- 9. Clinicians should review the patient's history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at high risk for overdose. Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months

3) Assessing Risk and Addressing Harms of Opioid Use

- 10. When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs

3) Assessing Risk and Addressing Harms of Opioid Use

- 11. Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible

3) Assessing Risk and Addressing Harms of Opioid Use

- 12. Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder

Validated Pain Scales

Dansie EJ, Turk DC. Assessment of patients with chronic pain. Br J Anaesth. 2013;111(1):19-25.

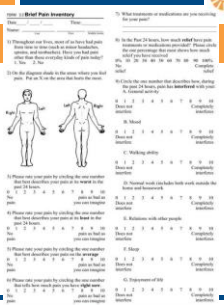
Validated Pain Scales

- Brief Pain Inventory
- FACES: Wong-Baker
- Visual analog scale
- Mankowski-pain scale

Brief Pain Inventory

- Self-report of pain intensity (sensory dimension) and how pain interferes with patients life (reactive dimension)
- Validated and translated into numerous languages
- Has been validated for use in patients with chronic nonmalignant pain and osteoarthritis

Brief Pain Inventory



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FACES: Wong-Baker

- Self-report using 6-item ordinal scale made up of 6 faces showing no pain (smiling face) to worst pain imaginable (grimace)
- Validated with good agreements between FACES and visual analog scale
- May also be used for adults when there is a language barrier

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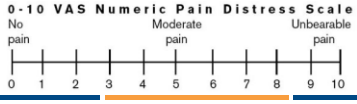
Visual Analog Scale

- Self-report by patient who selects a point on a 100-mm line that indicates pain level; in some cases, a percentage may be used (0 is "no pain" and 100% is "worst pain imaginable")
- Validated, familiar, and among the most frequently used pain scales
- Easy to administer, fast, and easy for patients to understand but measure pain intensity only



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Mankowski-pain scale

- **1** - Very minor annoyance - occasional minor twinges.
- **2** - Minor Annoyance - occasional strong twinges.
- **3** - Annoying enough to be distracting.
- **4** - Can be ignored if you are really involved in your work, but still distracting.
- **5** - Can't be ignored for more than 30 minutes.
- **6** - Can't be ignored for any length of time, but you can still go to work and participate in social activities.
- **7** - Makes it difficult to concentrate, interferes with sleep. You can still function with effort.
- **8** - Physical activity severely limited. You can read and converse with effort. Nausea and dizziness set in as factors of pain.
- **9** - Unable to speak. Crying out or moaning uncontrollably - near delirium.
- **10** - Unconscious. Pain makes you pass out.

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Pain Management

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Improving Adherence to Long-term Opioid Therapy Guidelines to Reduce Opioid Misuse in Primary Care. A Cluster-Randomized Clinical Trial

Liebschutz, et al. (2017)

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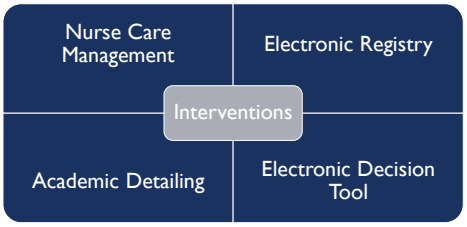
Liebschutz JM, Xuan Z, Shanahan CW, et al. Improving Adherence to Long-term Opioid Therapy Guidelines to Reduce Opioid Misuse in Primary Care: A Cluster-Randomized Clinical Trial. JAMA Intern Med. 2017;177(9):1265-1272.

Methods

- Four primary care centers receiving TOPCARE (Transforming Opioid Prescribing in Primary Care)
- Study arms
  - Nurse care management
  - Electronic registry
  - Academic detailing
  - Electronic decision tools
  - Or Electronic decision tools alone

Study Interventions



Results

Table 2. Patient-Level Primary Outcomes at 12 Months by Intervention Status

	Baseline			Follow up			
Variable	Intervention (n=586)	Control (n=339)	P value	Intervention (n=586)	Control (n=399)	P value	OR (95% CI)
Guideline-concordant care (agreement plus UDT)	241 (41.1)	168 (42.1)	.76	386 (65.9)	151 (37.8)	<.001	3.3 (1.9-5.6)
Signed agreement (ever)	376 (64.2)	233 (58.4)	.07	489 (83.5)	243 (60.9)	<.001	2.5 (1.4-4.5)
No baseline agreement	210 (100)	166 (100)	-	133 (53.8)	10 (6.0)	<.001	11.2 (4.1-30.7)
UDT (once in past 12 mo)	348 (59.4)	259 (64.9)	< .08	437 (74.6)	231 (57.9)	<.001	2.4 (1.3-4.4)
≥2 early refills	145 (24.7)	94 (23.6)	.67	121 (20.7)	80 (20.1)	.82	1.1 (0.6-1.9)

Results

Table 3. Patient-Level Secondary Outcomes at 12 Months by Intervention Status

	Baseline			Follow up		
Variable	Intervention (n=586)	Control (n=339)	P value	Intervention (n=586)	Control (n=399)	P value
Discontinuation of opioid prescription	NA	NA	NA	125 (21.3)	67 (16.8)	.04
Opioid dose reduction	NA	NA	NA	151 (32.8)	76 (22.9)	.002
Opioid dose reduction or discontinuation	NA	NA	NA	276 (47.1)	143 (35.8)	<.001
MEDD, mean (SD), mg	61.1 (84.9)	62.3 (75.6)	.84	60.8 (93.7)	67.3 (80.4)	.31

Tackling the Opioid Crisis with Prescription Guidelines, Accurate Monitoring, and Provider Education

Dalal, R. Tackling the Opioid Crisis with Clear Prescription Guidelines, Accurate Monitoring, and Provider Education. NEJM Catalyst. NEJM Group, May 23, 2018.

Methods

- NewYork-Presbyterian Medical Groups, multi-specialty physician organization in New York City – 800 physicians and 300 additional licensed professionals
- Three main goals
  - Establish straightforward clinical standards and best practices for opioid prescriptions in an ambulatory setting
  - Develop a decision aid to help clinicians identify potentially high-risk prescriptions at a glance
  - Implement methodologies to monitor compliance and identify high-risk prescribers across specialties

Opioid Prescription Best Practices

1. In general, do not prescribe opioids as first-line treatment for chronic pain
2. For Schedule II-IV controlled substances, The New York State Prescription Monitoring Program (PMP) website must be reviewed
    1. Opioid prescription dosage levels
        1. Level 1: 0–49 morphine milligram equivalents/day
        2. Level 2: 50–89 MME/day
        3. Level 3: Over 90 MME/day

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Opioid Prescription Best Practices

3. Patients receiving Level 2 and 3 opioid prescriptions should receive in-person follow-up every 3 months. Patients without an upcoming appointment should be scheduled
4. Level 3 prescriptions should be avoided when possible. Consider pain management consultation for patients requiring Level 3 opioid prescriptions
5. Patients on chronic opioid therapy (> 3 months) should be encouraged to review and sign a controlled substances agreement

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Opioid Prescription Best Practices

6. Concurrent prescription of opioids and benzodiazepines should be avoided whenever possible
7. Clinical rationale for each controlled substance prescription must be documented clearly. Each prescription must be accurately linked to the appropriate diagnosis in the clinical note, patient case, or order group

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Opioid Strength Conversion Table

Level 1: 0-49 MME/Day | Level 2: 50-89 MME/Day | Level 3: ≥90 MME/Day

Opioid Class	Opioid Dosage per tablet (mg)	MME per Tablet	Number of Tablets Dispensed (30-day supply) → MME per Day									
			10	20	30	40	60	90	120	180	240	360
Oxycodone	2.5	3.75	1	3	4	5	8	11	15	23	30	45
Oxycontin	5	7.5	3	5	8	10	15	23	30	45	60	90
Percocet	7.5	11.25	4	8	11	15	23	34	45	68	90	135
Endocet	10	15	5	10	15	20	30	45	60	90	120	180
Endodan	15	22.5	8	15	23	30	45	68	90	135	180	270
	20	30	10	20	30	40	60	90	120	180	240	360
	30	45	15	30	45	60	90	135	180	270	360	540
	40	60	20	40	60	80	120	180	240	360	480	720
	60	90	30	60	90	120	180	270	360	540	720	1,080
	80	120	40	80	120	160	240	360	480	720	960	1,440

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Total MME Prescribed Per Patient Managed: Select Specialties

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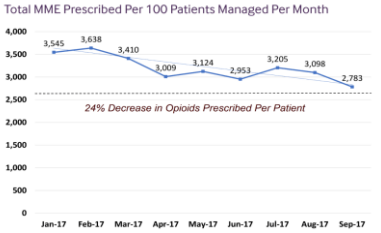
Results



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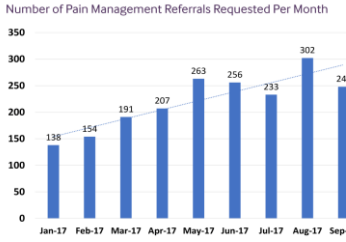
Results



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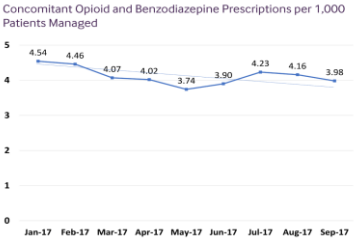


Opioid Harm Reduction

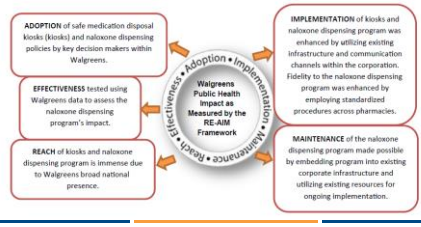
A Nationwide Pharmacy Chain Responds to The Opioid Epidemic

Shafer E, Borgeron N, Smith-ray R, Robson C, O'Koren R A nationwide pharmacy chain responds to the opioid epidemic. J Am Pharm Assoc (2003). 2017;57(25):S123-S129.

Initiatives

- Large retail pharmacy initiative
- Three programs to respond to the opioid crisis:
  1. Provide safe medication disposal kiosks
  2. Expand national access to naloxone
  3. Provide education on the risk and avoidance of opioid overdose

RE-AIM Framework



Naloxone dispensing sites

Naloxone prescriptions dispensed

Pharmacists counseling

- Risk factors for opioid overdose
- Strategies to prevent opioid overdose
- Signs of opioid overdose
- Steps in responding to an overdose
- Information on naloxone
- Procedures for administering naloxone
- Proper storage and expiration of naloxone

Naloxone administration: Step 1 Identify opioid overdose and check response

Ask person if he or she is okay and shout name.

Shake shoulders and firmly rub the middle of their chest.

Check for signs of an opioid overdose:

- Will not wake up or respond to your voice or touch
- Breathing is very slow, irregular, or has stopped
- Center part of their eye is very small, sometimes called "pinpoint pupils"

Lay the person on their back to receive a dose of NARCAN Nasal Spray.

Narcan (naloxone hydrochloride) intranasal [prescribing information]. Radnor, PA: Adapt Pharma; January 2017

Naloxone administration: Step 2: Give Naloxone nasal spray

REMOVE NARCAN Nasal Spray from the box.
Peel back the tab with the circle to open the NARCAN Nasal Spray.

Hold the NARCAN Nasal Spray with your thumb on the bottom of the plunger and your first and middle fingers on either side of the nozzle.

Gently insert the tip of the nozzle into either nostril.

- Tilt the person's head back and provide support under the neck with your hand. Gently insert the tip of the nozzle into **one nostril**, until your fingers on either side of the nozzle are against the bottom of the person's nose.

Press the plunger firmly to give the dose of NARCAN Nasal Spray.

- Remove the NARCAN Nasal Spray from the nostril after giving the dose.

Narcan (naloxone hydrochloride) intranasal [prescribing information]. Radnor, PA: Adapt Pharma; January 2017

Naloxone administration: Step 3: Call for emergency medical help, Evaluate, and Support

Get emergency medical help right away.

Move the person on their side (recovery position) after giving NARCAN Nasal Spray.

Watch the person closely.

If the person does not respond by waking up, to voice or touch, or breathing normally another dose may be given. NARCAN Nasal Spray may be dosed every 2 to 3 minutes, if available.

Repeat Step 2 using a new NARCAN Nasal Spray to give another dose in the other nostril. If additional NARCAN Nasal Sprays are available, repeat step 2 every 2 to 3 minutes until the person responds or emergency medical help is received.

Narcan (naloxone hydrochloride) intranasal [prescribing information]. Radnor, PA: Adapt Pharma; January 2017

Post-Presentation Questions

Question 1

- The CDC recommends clinicians avoid increasing chronic opioid doses to greater than ___ MME daily except in rare instances with significant justification.
  - A. ≥50mg MME/day
  - B. ≥60mg MME/day
  - C. ≥75mg MME/day
  - D. ≥90mg MME/day

Question 2

- Which routes of administration are approved for layperson administration and can be purchased directly from a pharmacist without a prescription:
  - A. Oral
  - B. Nasal
  - C. IV
  - D. IM
  - E. SubQ

Question 3

- Reviewing prescription drug monitoring program (PDMP) is recommended when:
  - A. Only when starting chronic opioid therapy
  - B. Starting opioid therapy and then annually
  - C. Starting opioid therapy and then every prescription
  - D. Starting opioid therapy and every prescription to every 3 months

Question 4

- Pharmacists involvement in the opioid crisis include(s):
  - A. Medication optimization
  - B. Counseling on opioid risks and harms
  - C. Education on naloxone
  - D. All of the above

Thank you!

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