Meeting the Challenges of Opioids and PAIN

Opioids and Pharmacists

Thursday, May 16, 2019

A Provider Toolkit

Meeting the Challenges of Opioids and PAIN:

PATIENT EDUCATION ON PAIN AND OPIOID PRESCRITIONS

ADDRESSING OPIOID PRESCRIPTION PRACTICES

IDENTIFYING SAFE AND EFFECTIVE PAIN MANAGEMENT PROTOCOLS

NONPHARMACOLOGIC AND NON-OPIOID PHARMACOTHERAPY ALTERNATIVES

http://www.stratishealth.org/pip/opioids.html

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Meeting the Challenges of Opioids and Pain:
How Pharmacists are Working to Address the Opioid Crisis

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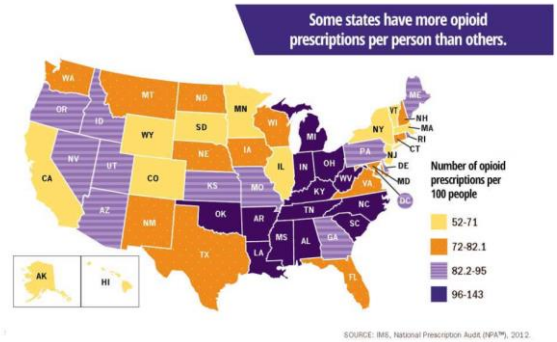
Objectives

- Understand how guideline and regulatory changes have impacted pharmacy practice in multiple settings (community pharmacy, clinic settings, inpatient settings, etc.)
- Describe pharmacist-led initiatives that have occurred to address the opioid crisis

Opioid Epidemic

- More than 130 people die every day due to opioid overdose (illicit and prescription)
- Prescription opioid misuse contributes to economic burden of approximately $78.5 billion each year, which includes healthcare, lost productivity, addiction treatment, and criminal justice involvement
- 21-29% of patients prescribed opioids for chronic pain misuse them and 8-12% will develop an opioid use disorder
- Amount of opioid prescriptions has quadrupled from 1999-2014, however, there has not been an increase in the overall amount of pain that patients report

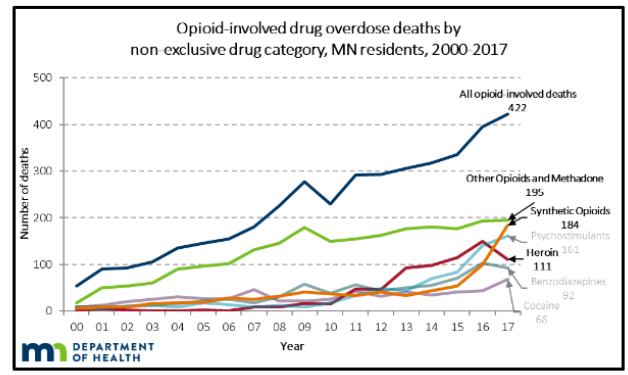


1. Opioid Overdose Crisis: National Institute on Drug Abuse. January 2019. Available at: https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis
2. Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep 2016;65(No. RR-1):1–49. DOI: http://dx.doi.org/10.15585/mmwr.rr6501e1

Opioid Epidemic - Minnesota

- Opioid Dashboard
- 422 Opioid overdose deaths in 2017
  - 195 involved prescription opioids
  - 111 involved heroin
  - 184 involved synthetic opioids (fentanyl, tramadol, etc.)
  - Continuing to rise

Drug Overdose Deaths



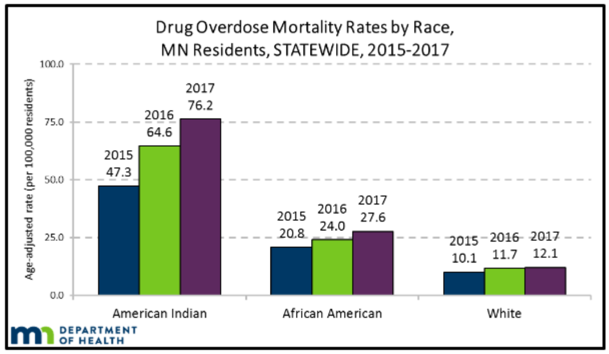
In 2017, opioid-involved deaths continued to increase for Minnesotans. There was a 7% increase in opioid-involved deaths from 2016 to 2017.

1. Opioids Data. Race Rate Disparity in Drug Overdose Deaths. Minnesota Department of Health. Available at: https://www.health.state.mn.us/communities/opioids/data/raceldisparity.html
2. Minnesota Opioid Prescribing Guidelines. First Edition, 2018. Available at: https://mn.gov/dhs/opioid-guidelines/
3. Minnesota Health Collaborative. https://www.mnhealthcollaborative.org/

Opioid Epidemic Minnesota

- Racial Disparities
  - In 2016, African Americans were two times more likely to die of a drug overdose than whites
  - In 2016, American Indians were almost six times more likely to die of a drug overdose than whites

Race-Rate Disparity in Overdose Deaths



*Note: Above graph is for all drug overdoses, including opioids, methadone, heroin, synthetic opioids, cocaine, psychostimulants, and benzodiazepines

1. Opioids Data. Race Rate Disparity in Drug Overdose Deaths. Minnesota Department of Health. Available at: https://www.health.state.mn.us/communities/opioids/data/racedisparity.html
2. Minnesota Opioid Prescribing Guidelines. First Edition, 2018. Available at: https://mn.gov/dhs/opip/opioid-guidelines/
3. https://www.health.state.mn.us/communities/opioids/opioid-dashboard/index.html

Helpful Information

- **Medication Therapy Management (MTM)**
  - Usually conducted by pharmacists
  - Variety of settings (Community, Ambulatory Care, Telehealth, etc.)
  - Assessment of all medications for appropriate indication, efficacy, safety, and convenience
- **Collaborative Practice Agreement (CPA)** agreement with prescriber to modify, initiate, or discontinue medication therapy on the behalf of the prescriber. Can also be initiated to order labs or other appropriate referrals
- **Naloxone** – opioid antagonist medication. Quickly reverses effects of opioids from the opioid receptor. Available in intranasal and injectable formulations
- **Morphine Milligram Equivalent (MME)** – value assigned to opioids to represent relative potencies

1. Morphine Equivalent Dosing. RxPerts Industry Insights. Available at: https://www.wolterskluwercdi.com/sites/default/files/documents/ebooks/morphine-equivalent-dosing-ebook.pdf?v3

MINNESOTA PRESCRIPTION MONITORING PROGRAM

MNPMP

- Administered by the MN Board of Pharmacy
- State Board requires that pharmacists have access
- Collects prescription data on all schedules II-V controlled substances as well as butalbital and gabapentin
- Reported by pharmacies regardless of how prescription was paid for
- Intent to reduce diversion and detect abuse and misuse
- Can be accessed by pharmacists, prescribers, delegates of prescribers, medical examiners, MN Dept of Human Services Restricted Recipient Program staff and their delegates

http://pmp.pharmacy.state.mn.us/assets/files/2017%20Files/2017_FAQ_General%20ProgramIII.pdf

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CDC Guidelines

- Intended for use by primary care physicians for chronic pain management in adults not related to palliative or active-cancer treatment
- Non-pharmacologic therapy and non-opioid pharmacologic therapy are preferred
- Consider opioid therapy only if benefits for pain and function are anticipated to outweigh risks. Should be in combination with other modalities
- Close monitoring for functional improvement and opioid use risk - Check prescription drug monitoring programs regularly and utilize urine drug testing at least annually

1. Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep 2016;65(No. RR-1):1–49. DOI: http://dx.doi.org/10.15585/mmwr.rr6501e1
2. https://www.cdc.gov/drugoverdose/pdf/Guidelines_Factsheet-a.pdf

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CDC Guidelines

- There is not a singe dosage threshold for safe opioid use, however risk for overdose increases in dose-dependent manner
- Opioids should not be increased to > 90 MME/day without careful justification based on diagnosis and individualized assessment of benefits/risks
- Doses > 50 MME should have more frequent follow up and consideration of naloxone and overdose prevention
- Monitoring recommendations: at least every 3 months

1. Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep 2016;65(No. RR-1):1–49. DOI: http://dx.doi.org/10.15585/mmwr.rr6501e1
2. https://www.cdc.gov/drugoverdose/pdf/Guidelines_Factsheet-a.pdf

ICSI Guidelines

- Institute for Clinical Systems Improvement – MN Collaborative of physicians and other representatives who work together to address major health topics
- Focus on continuous quality improvement and implementation of evidenced-based treatments to bring health service models in to practice
- Low Back Pain, Adult Acute and Subacute
- Pain; Assessment, Non-Opioid Treatment Approaches and Opioid Management
  - Many helpful pain management algorithms
  - Comprehensive care approach

Hooten M, Thorson D, Bianco J, Bonta B, Clavel Jr A, Hora J, Johnson C, Kirkpatrick E, Noonan MP, Reznikoff C, Schwein K, Wainio J, Walker N. Institute for Clinical Systems Improvement. Pain: Assessment, Non-Opioid Treatment Approaches and Opioid Management. Updated August 2017.

ICSI Guidelines

- Address Acute or Acute on Chronic Pain
  - First opioid prescription should be lowest possible effective strength of short-acting opioid, not to exceed 100 MME total per prescription and < 3 day supply
  - Ongoing treatment to not exceed 100 MME per day (or 50 MME per day with concomitant benzodiazepine or hx of abuse)
- Avoidance of opioids for chronic pain if possible
- Functional and Risk Assessment
- Naloxone for high risk
- Monitoring considerations (UDS, Drug counts, Access PMP, etc)

Hooten M, Thorson D, Bianco J, Bonte B, Clavel Jr A, Hora J, Johnson C, Kirksson E, Noonan MP, Reznikoff C, Schweim K, Wainio J, Walker N. Institute for Clinical Systems Improvement. Pain: Assessment, Non-Opioid Treatment Approaches and Opioid Management. Updated August 2017.

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MN Opioid Prescribing Guidelines

- State of Minnesota and the Opioid Prescribing Workgroup
- Focus on period during acute pain and recovery from surgeries or injuries
  - Acute pain phase (Days 0-4 [or up to 7 for major surgery or trauma])
  - Post-Acute Pain Phase – up to 45 days after acute event
  - Chronic Pain - >45 days or beyond expected duration of recovery
  - Tapering
  - Women of Childbearing Age

Minnesota Opioid Prescribing Guidelines. First Edition, 2018. Available at: https://mn.gov/dhs/opioid-guidelines/

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MN Opioid Prescribing Guidelines

- Prescribed lowest effective dose and duration of opioids for acute pain
  - <100 MME per Rx or <3 day supply [200 MME for major trauma]
- Post-acute – no more than 50 MME/day
- Post-acute pain period is critical to halt progression to chronic use – offer tapers
- Evidence to support chronic opioid analgesic therapy for chronic pain is insufficient. Providers should avoid initiating chronic opioid therapy if possible
- Risk assessments (ORT, etc). Assessment of mental health
- Avoid combination benzodiazepines and opioids
- Check prescription monitoring program whenever prescribing opioids

Minnesota Opioid Prescribing Guidelines. First Edition, 2018. Available at: https://mn.gov/dhs/ogig/opioid-guidelines/

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CMS 2020 Policies & Final Call Letter

- Encourage health plans to offer flexibility and cost-sharing reductions/supplemental benefits for addiction treatment and part C services (chiropractic, acupuncture, etc)
- Encourage opioid reversal agents (naloxone) on lowest cost-sharing tiers
- New Part D STAR measures to display page
  - Use of Opioids at High Dosage in Persons without Cancer (OHD)
  - Use of Opioids from Multiple Providers in Persons without Cancer (OMP)
  - Use of Opioids at High Dosage and from Multiple Providers in Persons without Cancer (OHDMP)
  - Concurrent Use of Opioids and Benzodiazepines (COB)
- Previous Initiatives (2019):
  - Hard safety edits for acute pain, and opioid care coordination edit at 90 MME per day
  - Opioid Drug Management Program (DMP) – plans have ability to lock in to prescriber, pharmacy, or both based on CMS criteria

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Pharmacist Unique Skills & Expertise

MME Conversions

- (Strength per Unit) * (Number of units/Day Supply) * (MME conversion factor) = MME per day
- Example: What is the MME of oxycodone 5 mg four times per day?
  - 5 mg * 4 = 20 mg total per day
  - 20 mg* 1.5 = 30 MME

Opioid Oral Morphine Milligram Equivalent (MME) Conversion Factors[1,2]

Type of Opioid (strength units)	MME Conversion Factor
Buprenorphine film/tablet[3] (mg)	30
Buprenorphine patch[4] (mcg/hr)	12.6
Buprenorphine film (mcg)	0.03
Butorphanol (mg)	7
Codeine (mg)	0.15
Dihydrocodeine (mg)	0.25
Fentanyl buccal or SL tablets, or lozenge/troche[5] (mcg)	0.13
Fentanyl film or oral spray[6] (mcg)	0.18
Fentanyl nasal spray[7] (mcg)	0.16
Fentanyl patch[8] (mcg)	7.2
Hydrocodone (mg)	1
Hydromorphone (mg)	4
Levorphanol tartrate (mg)	11
Meperidine hydrochloride (mg)	0.1
Methadone[9] (mg)	3
>0, <= 20	4
>20, <=40	8
>40, <=60	10
>60	12
Morphine (mg)	1
Opium (mg)	1
Oxycodone (mg)	1.5
Oxymorphone (mg)	3
Pentazocine (mg)	0.37
Tapentadol [10] (mg)	0.4
Tramadol (mg)	0.1

https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/Downloads/Opioid-Morphine-EQ-Conversion-Factors-Aug-2017.pdf

Opioid Rotations and Tapering Plans

- **Opioid Rotations** – Changing from one opioid to another
  - Utilize MME
  - Adjust for cross tolerance (20-50%), pharmacokinetic factors, and impact from other concomitant medications
- **Opioid Tapering** – mix of art and science
  - Calculate MME
  - Taper speed dependent on medication involved, rationale for taper, and patient specific criteria
  - Can involve an initial opioid rotation
  - More challenging with mix of long and short acting formulations or patches
  - Patient education - withdrawal

1. Opioid Taper Decision Tool. Veterans Health Administration. Available at: https://www.pbm.va.gov/AcademicDetailingService/Documents/Pain_Opioid_Taper_Tool_3B_10_939_P96820.pdf

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Management of Unique Medications

- **Methadone**
  - Very long half-life
  - NMDA receptor antagonism
  - Accumulation effect – analgesic effect does not last as long as the metabolites remain in the system (increased risk for unintentional overdose)
  - As dose decreases you MUST recalculate MME due to accumulation effects

Methadone[3] (mg)	3
>0, <= 20	4
>20, <=40	8
>40, <=60	10
>60	12

1. Pasero C, McCaffery M. *Pain Assessment and Pharmacological Management*. Elsevier. 2011 edition/Opioid-Morphine-EQ-Conversion-Factors-Aug-2017.pdf
2. Pasero C, McCaffery M. *Pain Assessment and Pharmacological Management*. Elsevier. 2011 edition
3. American Pain Society. *Principles of Analgesic Use*. Seventh Edition. 2016

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Management of Unique Medications

- **Buprenorphine**
  - Opioid receptor agonist/antagonist with high receptor affinity (displaces opioid) – challenging opioid rotations
  - Controlled Substance III – special DEA not needed
  - Ceiling effect – safest opioid for respiratory depression risk (not risk free)
  - Fewer side effects

MME per day	Patch	Film
9	5 mcg/hr	150 mcg BID
18	10 mcg/hr	300 mcg BID
27	15 mcg/hr	450 mcg BID
36	20 mcg/hr	600 mcg BID
45	------	750 mcg BID
54	------	900 mcg BID

1. https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/Downloads/Opioid-Morphine-EQ-Conversion-Factors-Aug-2017.pdf
2. Journal of Pain Research 2015:8 859–870

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Other Topics

- Recognition and Management of Withdrawal
  - Recommendations for withdrawal medication
- Non-opioid management
  - Mental health medication
  - Non-opioid pain treatment alternatives
  - Assist with functional or risk assessments

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What are Pharmacists Doing to Help?

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Community Pharmacists

- Front lines – dispensing opioid prescriptions
- Access to prescription drug monitoring program
- Acceptance of E-Prescribing
- Training to identify drug seeking behaviors and resources to offer help
- Naloxone – Some pharmacies are entering in to collaborative agreements with physicians to prescribe naloxone to high risk patients
- Collaboration with health-systems for post-discharge pain management

1. Shafer, E. et al. A nationwide pharmacy chain responds to the opioid epidemic. Journal of the American Pharmacists Association. 57 (2017) S123eS129.

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Community Pharmacists

- Minnesota Pharmacy Syringe/Needle Access Initiative – Pharmacy Voluntary
  - Persons are able to purchase up to 10 new syringes/needles without a prescription
- Medication Disposal Kiosks and education
- Pharmacists in medical cannabis dispensaries
- Medication Therapy Management (MTM)

1. https://www.health.state.mn.us/communities/opioids/mnresponse/naloxoneaccess.html
2. https://www.health.state.mn.us/people/syringe/mnpharmacy.html

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Ambulatory Care Pharmacists

- Medication Therapy Management (MTM) Practitioners – comprehensive collaborative practice agreements
  - Family Practice/Internal Medicine initiatives
  - Several pharmacists practicing in comprehensive pain management clinics in the Twin Cities
    - Patient education
    - Opioid tapering
    - Opioid alternatives
    - Polypharmacy
    - Pharmacogenomic testing and counseling
    - Naloxone prescribing
    - Management of mental health medication and screening

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Ambulatory Care Pharmacists

- Prescriber education
- Integration of guideline initiatives and strategies to improve EMR utilization for improved opioid prescribing
  - Alternative medications and dosing options
  - Integration of MME calculators
  - Integration of functional assessment tools
  - Auto-Prescription of Naloxone

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Inpatient Pharmacists

- Education of prescribers – ED, surgical teams, etc
  - Guideline Review
  - Buprenorphine & Non-Opioids
- Emergency Department pharmacists
- Medication Safety Pharmacists
- Admission/Discharge medication reconciliation and patient education
- Medication Use Evaluations

1. Hooten M, Thorson D, Bianco J, Bonte B, Clavel Jr A, Hora J, Johnson C, Kirksson E, Noonan MP, Reznikoff C, Schweim K, Wainio J, Walker N. Institute for Clinical Systems Improvement. Pain: Assessment, Non-Opioid Treatment Approaches and Opioid Management. Updated August 2017.

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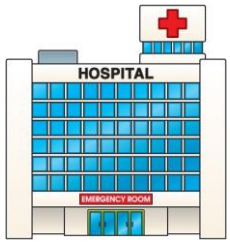
Inpatient Pharmacists



- Enhancement of EMRs
  - Standardized opioid dosing to meet guideline recommendations
  - MME Calculators
- Inpatient Pain Teams
  - Team of pharmacists and nurse practitioners as a consult service
  - Acute on chronic pain management, post-surgical pain management, chronic pain + addiction, etc.
  - Transitions of care

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Health Plans

- Utilization Management Strategies for Safety
  - Opioid-Naïve Patients: hard safety edit at the pharmacy which limits initial opioid fills for acute pain to no more than a 7-day supply. Subsequent fills not subject to this limit. CMS Rule.
  - Long Acting Opioids: a hard safety edit (prior authorization) may be implemented for all long-acting opioid medications to ensure safe prescribing
  - Quantity limits:
    - Non-Medicare: limit opioid prescriptions to an average daily morphine milligram equivalent (MME) of 90
    - Medicare: soft safety edit (i.e., can be overridden by the pharmacist) for an average daily MME of > 90. Hard safety edit (i.e., requires prior authorization) for an average daily MME of > 200.

https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/Downloads/se18016.pdf

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Health Plans

- Quarterly opioid utilization monitoring program
  - Monitor high risk patients based on number of prescribers, pharmacies, and average daily MME
- Restricted recipient program
  - Lock in members to specific prescriber, pharmacy, or both
- Care coordinator education and resources
  - Deterra bags for safe medication disposal
- Promotion of safer alternatives through formulary choices (Buprenorphine, non-opioids, etc)

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Other Initiatives

- Collaboration between state and national organizations, clinicians, and/or other stakeholders
  - Opioid Prescribing Improvement Program – Minnesota based workgroup
    - Continuing education, opioid prescribing guidelines, individual opioid prescribing reports (through MN-ITS)
  - AWARxE: Resource for pharmacists with education, medication disposal information, etc. https://nabp.pharmacy/initiatives/awarxe/
  - Enhancing prescription drug monitoring programs (PDMP)
  - APhA Opioid Use and Misuse Resource Center
  - Center for Opioid Research and Education (CORE) - https://www.solvethecrisis.org/

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Other Initiatives

- Pharmaceutical Industry
  - Research and development of abuse deterrent drug formulations
  - Research and development of drugs with novel mechanisms of action
  - Software initiatives for the electronic medical record
- Technology
  - Prescribe Wellness App: App-based opioid risk assessment tool that can be used during MTM visit

1. Innovative Tech Tools Target Opioid Epidemic. *Pharmacy Today*. June 2018. Available at: https://www.pharmacytoday.org/article/S1042-0991(18)30771-0/pdf

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Other Initiatives

- Academia
  - Targeted education for pharmacy students and enhanced curriculum
  - Community Education
- Pain Management and Palliative Care Pharmacy Residencies (PGY-2)
  - 25 Specialty Residencies in the USA
  - Continuing to expand
  - Minnesota: VA Hospital

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Questions?

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