Treating Pain Safely in Primary Care

Karen Isaacs 6/10/22

Disclosures

Objectives

- Standardize your approach to pain management, incorporating harm reduction
- Recognize policy around chronic opioid use
- Identify and utilize best practices for chronic opioid use

Pain

- Activation of nervous system's nociceptive and hypothalamicpituitary-adrenal axis
- Aversive sensory and emotional experience typically caused by, or resembling that caused by, actual or potential tissue injury
- Complex due to diverse origins and subjective experience of sufferer; attitudes, emotional disposition, and belief systems can shape the experience of pain
- Types of Pain
 - Neuropathic (peripheral vs central)
 - Nociceptive (arises from actual/threatened damage to non-neural tissues and is due to activation of nociceptors)

Harm Reduction

Strategies to reduce potential negative consequences associated with a behavior or drug use.

Case

Mr Thomas is a 55 year old male with chronic back pain.

You first met him when he came in for acute pain, after his orthopedic decided to "cut him off" and no longer prescribe his opioid regimen (roxi 5mg two tabs, four times daily prn). Prior PCP had not agreed to chronic pain management. His initial visit with you resulted in you recognizing:

- 1) He was in acute withdrawal
- 2) He was acutely anxious (tearful, crying, hard to redirect)
- 3) He reported pain, but seemed to be functioning ok
- 4) You had no records of his prior workup

You agreed to resume half his regimen (roxi 5mg two tabs, tid prn), and offered adjunct meds to help with withdrawal, with close follow-up.

No universally adopted guidelines or recommendations for assessing pain! But it should be multidimensional, serial over time:

- Physiological features of pain
- Contributing factors...intensity, location, duration, factors that aggravate of alleviate the pain
- Function
- Quality of life
- Mental and emotional health
- Chronicity: Acute Vs <u>Chronic</u>
- Exam
- Prior workup, current workup
- Prior treatment, current treatment

3) Pain Management
-1st line: nonpharmacologic and non-opioids
-lowest effective dose for:

- For pain relief
- For functional improvement

1) Pain Assessment Ex: PEG Score:

- Pain on average
- Enjoyment of life
- General Activity
 interference

2) Functional Assessment Ex: Functional Goals

Coexisting Condition Screen Ex: PHQ9, GAD7

Nonpharmacologic Pain Management

- Yoga
- Relaxation
- Tai chi
- Massage
- Acupuncture
- Sleep hygiene
- Immobilization, heat/cold, elevation
- CBT
- TENS
- Weight loss, exercise, OPT/OT
- Interventional procedures

| Non-Pharmacologic Treatments | | | | |
|---|---|-----------------------|--|--|
| Therapy | Indications ^a | Magnitude of Benefit⁵ | | |
| | | PAIN | FUNCTION | |
| Exercise | Low back pain, neck pain, knee and hip osteoarthritis, fibromyalgia | Small to moderate | Small to moderate | |
| Cognitive Behavioral Therapy | Low back pain, fibromyalgia | Small to moderate | Small to moderate | |
| Massage/Acupuncture/ Spinal Manipulation | Low back pain, fibromyalgia, chronic headache, neck pain | Small to moderate | Small to moderate | |
| Yoga/Tai Chi | Low back pain, fibromyalgia | Small | Small (fibromyalgia) Moderate (low back pain) | |

AAFP, 6/4/22

Non-opioid Pharmacologic Pain Management

- Acetaminophen
- NSAIDs
- Topical analgesics
- Gabapentin, Lyrica
- Muscle relaxants
- Steroids
- Duloxetine, antidepressants
- Injections, blocks

AHRQ review: Non-opioids (SNRI, pregabalin/gabapentin, NSAIDs) resulted in small-moderate improvements in pain and function

AAFP; CDC: Nonopioid Treatments; McDonagh; Taube

| Table D. Pharmacologic Treatments | | | | |
|-----------------------------------|---|-----------------------------------|---|--|
| Class of Medication | Indications | Magnitude of Benefit ^ь | | |
| | | PAIN | FUNCTION | |
| NSAIDs (topical or oral) | Low back pain, asteoarthritis, inflammatory arthritis, acute musculoskeletal (MSK) pain | Small to noderate | None to small | |
| Acetaminophen | Acute MSK pain | Small | None | |
| Antidepessants | Diabetic peripheral neuropathy, fibromyalgia | Small | None | |
| Anticonvulsants | Diabetic peripheral neuropathy, fibromyalgia | Small to moderate | None (neuropathic pain) Small (fibromyalgia) | |
| Opioids | Acute MSK pain, chronic pain, neuropathy | Small to no benefit [°] | Small to no benefit [°] | |

AAFP, 6/4/22

- Nociceptive:
 - 1st line NSAIDs
 - 2nd and 3rd line: Acetaminophen, topical agents (NSAIDs, lidocaine), opioids only when multimodal therapy is not enough or contraindicated
- Neuropathic:
 - 1st line: TCA or SNRI; gabapentin or pregabalin, sodium channel agents.
 - 2nd and 3rd line: Acetaminophen, topical agents (NSAIDs, lidocaine), opioids only when multimodal therapy is not enough or contraindicated

Harms of Non-Opioid Pain Management

- Acetaminophen: liver
- NSAIDs: GI, renal, HTN, cardiac
- Aspirin: GI
- Gabapentin, Lyrica: CNS
- Muscle relaxants: CNS
- Steroids: GI, endocrine
- Duloxetine, antidepressants: CNS

Harms of Opioid Pain Management

- Overdose
- Opioid dependence
- OUD
- Opioid diversion

Harm Reduction for Prescription Opioids

- Naloxone
- Safe opioid/benzo disposal
- Tapering opioids and/or benzos
- Buprenorphine

Naloxone

- Anyone prescribed opioids
 - especially >50 MME or on chronic treatment
 - with concurrent benzo use
- All patients in substance use treatment
- All patients with chronic pain
- Anyone actively using substances
- Anyone with a history of overdose
- All persons with family members/loved ones in these categories

Safe Med Disposal

- "Drug Take Back"
- Flush down toilet?
- Dispose at home
 - Mix medication with unpalatable substance (cat litter, dirt, used coffee grounds)
 - Place mixture into sealed bag
 - Discard into your trash container
 - Delete/scratch off all personal information on the prescription label, then discard or recycle the empty bottle or packaging

Case

Mr Thomas is a 55 year old male with chronic back pain.

You first met him when he came in for acute pain, after his orthopedic decided to "cut him off" and no longer prescribe his opioid regimen (roxi 5mg two tabs, four times daily prn). Prior PCP had not agreed to chronic pain management. His initial visit with you resulted in you recognizing:

- 1) He was in acute withdrawal
- 2) He was acutely anxious (tearful, crying, hard to redirect)
- 3) He reported pain, but seemed to be functioning ok
- 4) You had no records of his prior workup

You agreed to resume half his regimen (roxi 5mg two tabs, tid prn), and offered adjunct meds to help with withdrawal, with close follow-up.

Is there anything you could have done more for harm reduction?

Nonpharmacologic options?

Non-opioid pharmacologic options?

NCMB Safe Opioid Prescribing Initiative (SOPI), 2016

- Aimed to reduce harm from misuse/abuse of prescription opioids by identifying and intervening to prevent excessive or inappropriate prescribing
- Board shall investigate if prescribers meets 1+ of the following:
 - Is in top 1% of those prescribing 100 MME per patient, per day
 - Is in top 1% of those prescribing 100 MMEs per patient, per day, in combination with any benzo and is within the top 1% of all controlled substance prescribers by volume
 - Has prescribed to 2+ patients who died in preceding 12 months due to opioid poisoning

NC Medicaid Lock-In Program

- Medicaid beneficiary identified for lock-in is restricted to single prescriber and pharmacy in order to obtain opioid analgesics, benzos, and certain anxiolytics (otherwise claim is denied)
- Lock-in period is 2 years. Criteria is 1+ of following:
 - >6 benzo or certain anxiolytic claims in 2 consecutive months, or >6 opiate claims in 2 consecutive months
 - Receiving rx for opiates and/or benzos and certain anxiolytics from >3 prescribers in 2 consecutive months

NCMB Policy for the Use of Opioids for the Treatment of Pain

- 1996; amended Jan 2017
- Any licensee prescribing opioids must be knowledgeable of benefits, risks, and potential harm associated with opioid treatment
- Failure to provide opioid treatment consistent with standard of care may subject licensee to disciplinary action by Board
- Board adopted/endorsed CDC's 2016 Guidelines for Prescribing Opioids for Chronic Pain

NCMB's Controlled Substances CME requirement (7/1/17):

CME on controlled substance prescribing practices and controlled substances for chronic pain management (includes training on signs of abuse or misuse of controlled substances, or non-opioid treatment options)

- Physician: at least 60 hours of Category 1 CME every 3 years; <u>at least 3 hours</u> of CME for controlled substance prescribing practices.
- PA: at least 50 hours of Category 1 CME every 2 years (or NCCPA current certification); <u>at least 2 hours</u> of CME for controlled substance prescribing practices

NC STOP Act (Strengthen Opioid Misuse Prevention)

- Targets Schedule II and III opioids
- Acute pain defined as <3 months, chronic pain as >3 months
- 1st time rx for acute pain is limited to <5 days (rx for post-op is limited to <7 days). Must have follow-up evaluation if further rx needed
 - Excluding hospital, nursing home, hospice, or residential care facility
- Prescribers must check CSRS for 1st time and then every 90 days (look back 12 months, document this in record). Delegate CSRS accounts may be used.
 - Excluded rx administered in hospital, nursing home, dialysis facility, or residential care facility; excluding rx for hospice or palliative care or for cancer pain treatment
 - DHHS may do periodic audits
- PAs/NPs in pain clinic setting must personally consult with supervising physician when starting opioid that is expected to exceed 30 days (and re-consult every 90 days)

- Must electronically prescribe controlled substance
- Pharmacies must report rx dispense to CSRS by following day
- Amends Good Samaritan Law, to allow community distribution of naloxone through organizations with standing order
- Allows local funds to be used for syringe exchange

NC Medicaid Opioid Safety Prior Authorization Criteria

- Updated Jun 2018
- Requires PA for opioid doses exceeding 90 MME per day, are >14 day supply of any opioid, or are non-preferred
- Now includes schedule III and IV opioids (tramadol), in addition to schedule II opioids already subject to criteria
- Also updated to reflect NC STOP Act:
 - PA required for short-acting opioids >5 day supply for acute pain, and 7 day supply for post-op acute pain

- Staff alert you that a 35 year old woman is slumped in a waiting room chair, and is unresponsive. Staff said she appeared very drowsy upon arrival and check-in.
- You do not personally or professionally know this women, but she is unconscious with shallow respirations.
- As you evaluate her ABCs, you consider if she is overdosing on opioids.

True/False: it is important to know her medical history before giving naloxone.

- Staff alert you that a 35 year old woman is slumped in a waiting room chair, and is unresponsive. Staff said she appeared very drowsy upon arrival and check-in.
- You do not personally or professionally know this women, but she is unconscious with shallow respirations.
- As you evaluate her ABCs, you consider if she is overdosing on opioids.
 <u>She appears to be pregnant.</u>

True/False: You should not give naloxone.

- Robert and Blake occasionally use heroin together. Blake prefers pills, but uses heroin when he cannot afford them. Robert has been using heroin more regularly.
- Robert shares some of his new bundle with Blake today, and they shoot up together. Within 10 minutes, Robert notices Blake is not arousable, with classic signs of overdose.
- Robert panics because he does not have any naloxone.

True/False: If Robert calls EMS, he risks being arrested himself for possession of drugs/paraphernalia.

Good Samaritan/ Naloxone Access law, effective April 9, 2013

- individuals who experience a drug overdose, or persons who witness an overdose and seek help for the victim, can no longer be prosecuted for possession of small amounts of drugs, paraphernalia, or underage drinking. The purpose of the law is to remove the fear of criminal repercussions for calling 911 to report an overdose, and to instead focus efforts on getting help to the victim.
- The Naloxone Access portion of SB20 removes civil liabilities from doctors who prescribe and bystanders who administer naloxone, an opiate antidote which reverses drug overdose from opiates, thereby saving the life of the victim.

Death by Distribution law, effective Jan 1, 2020:

- Allows prosecutors to charge someone with 2nd degree murder if they sold a product to someone who then overdosed and died
- Medical professionals acting under standard of care are exempt, and the law targets those selling/distributing drugs. Law carries up to 20 years sentence (or 40 years if they have prior unlawful distribution conviction).
- NCHRC feels this law conflicts with/undermines the Good Samaritan Law and its immunities.

NC Opioid and Substance Use Action Plan

- Implemented 6/2017; updated 5/2021
 - Broadened focus on polysubstance use, also centering equity and lived experiences
 - Prevent future addiction and address trauma (supporting children, families)
 - Increasing treatment access for justice-involved people
- Since launch:
 - 36% decrease in number of persons receiving dispensed opioids
 - 48% increase in uninsured and Medicaid persons who have received MOUD

Opioid Quality Measures

- CMS 506, NQF3316e:
 - patients with 2 opioids, or opioid + benzo, at time of hospital discharge
- HEDIS:
 - Percent of adults age 18+ who receive 2+ opioid rx on different dates of service with at least 15 total days covered by opioids during the measurement year
 - Percent of adults age 18+ who receive rx opioids for <a>>15 days during measurement year from multiple providers
 - Percent of adults age 18+ who received high dose opioids (>90 MME) >15 days during measurement year

Best Practices for Chronic Opioid Use

4) Opioid pain management (when benefits for pain and function outweigh risks)

- Assess for risk of substance misuse (ORT, DIRE)
- Create care plan with functional goals, risks/benefits/side effects, attention to dose escalation and reduction
- Start with lowest effective opioid dose (and not ER/LA to begin with)
- Counsel on naloxone
- Other routine risk mitigation: education, UDS, review CSRS, counting pills, more frequent visits, mental health screening, chronic pain agreement

Reason to taper opioids:

- Patient desire
- Lack of improvement in pain and/or function
- Nonadherence to treatment plan
- Signs of misuse and/or abuse of opioid or other substance
- Serious adverse events, or early signs of sedation/overdose risk

Individualize taper; goal to avoid/minimize withdrawal symptoms. Reduce dose by 10-20% every 1-2 weeks.

• Once at 1/3 of original dose, smaller decreases of 5% every 2-3 weeks

5) Prevent, detect, and treat OUD

4 Cs:

- Impaired control over drug use
- Compulsive use
- Continued use despite harms (consequences)
- Craving

Case

- Mr Thomas was stable for nearly a year on the new regimen of 5mg two tabs roxicodone tid prn, soma 350 bid, Elavil 100mg. You also learned he was on topiramate for migraines by neurology, Xanax and Prozac for anxiety and depression by psychiatry.
- For the next 10 months, he reported ongoing uncontrolled back pain and asked about MRI. Worked in housecleaning.
- When you finally order his MRI:
 - He has bad venous stick for contrast resulting in arm pain that became chronic
 - MRI showed stable lumbar DDD
 - He had incidental stomach mass (GIST), removed; but perseverated on prior abdominal pain that "no one listened to"
- Violated pain agreement twice (ran out early twice)

What are your concerns? How do you address them?

- You take the opioid epidemic seriously.
- You have been reviewing your patient panel of those who receive longterm opioids from your clinic.
- You follow CDC's recommendations when it comes to a goal of <90 MMSE and/or concurrent benzodiazepine rx, and tapering protocols.

True/False: Tapering opioids may increase the frequency with which you see such patients.

Case

Recommend a taper this patient's opioid regimen, after 2 years of poor functional improvement?:

- Oxymorphone 10mg four times daily
- Hydrocodone-acetaminophen 10-325mg three times daily prn

Use opioid conversion calculator; probably easier to convert entire regimen to hydrocodone.

(oxymorphone 40mg po = 90mg po hydrocodone, including 25% cross tolerance) + 30mg hydrocodone = 120mg hydrocodone.

Reduce by 10-20% every 2 weeks.

2016 CDC Guidelines for Prescribing Opioids for Chronic Pain

- 1. Nonpharmacologic and non-opioid pharmacologic therapy are preferred for chronic pain. Only consider opioid therapy if expected benefits for pain/function outweigh risk, and add nonpharmacologic and non-opioid pharmacologic therapy.
- 2. Establish treatment goals (pain, function) before starting opioids for chronic pain
- 3. Before starting and periodically, discuss with patients risks/realistic benefits and each other's responsibilities for managing therapy
- 4. When starting opioids, choose immediate-release opioids (no ER/LA)

2016 CDC Guidelines for Prescribing Opioids for Chronic Pain

- 6. Opioids for acute pain should be lowest effective dose of immediaterelease opioids; should be no more than needed (3 days or less is often sufficient; >7 days is rarely needed)
- 7. Evaluate benefits/harms with patients 1-4 weeks after starting or increasing opioid dose. Review benefits/harms at least every 3 months. If harms > benefits, optimize other therapies and work to taper opioids
- Evaluate risk factors for opioid-related harms before starting and periodically after starting opioids. Incorporate risk mitigation, including naloxone if history of overdose, SUD, <u>></u>50 MME/day, concurrent benzo use

2016 CDC Guidelines for Prescribing Opioids for Chronic Pain

- Review CSRS and history of controlled substance rx, to look for risk of overdose. Review CSRS when starting opioids and then periodically (at least every 3 months)
- 10. Use urine drug testing before starting opioid therapy, and at least annually thereafter
- 11. Avoid prescribing opioid pain medication and concurrent benzos if possible
- 12. Arrange evidence-based treatment for patient with OUD

Proposed 2022 CDC Clinical Practice Guidelines for Prescribing Opioids

- No longer includes specific dosage ceilings
- No longer suggests that opioid treatment for acute pain be limited to 3 days
- Recommends multimodal and multidisciplinary approach to pain management (physical, behavioral, long term services and supports)
- Reiterates that opioids are not 1st line for chronic pain, nor subacute pain

Which of these opioid regimens has MME >90?

a) Morphine 10mg IV every 6 hours

b) Fentanyl 50mcg/hr TD every 3 days

c) Oxycodone 15mg PO bid with hydrocodone-acetaminophen 5-325mg PO tid prn

d) Hydromorphone 4mg PO tid

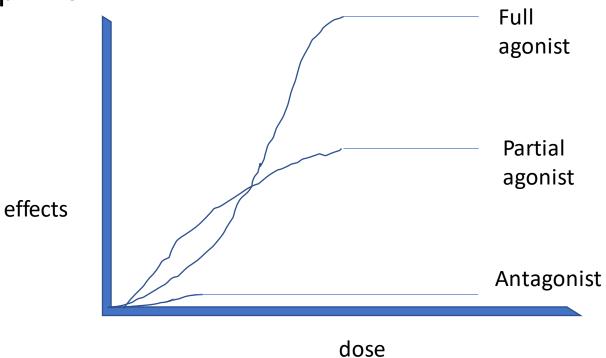
True or False

- John presents as a new patient from Kansas.
- He was on methadone tabs for chronic neck pain, despite attempt cervical fusion. MME = 105.
- He asks you to take over the management of his methadone, as there are few pain management specialists around.
- You screen him, and he demonstrates no evidence of OUD.

True/False: You can competently manage his pain.

Mu Effects

- Full agonist: Methadone, opioids
- Partial agonist: Buprenorphine
- Antagonist: Naltrexone



SAMHSA TIP 63; Rosenquist; Powell

Acute Pain in Adults with Treated OUD

- Methadone: continue baseline methadone, use multimodal nonopioid analgesic strategies, supplemented with incremental opioid prn
- Buprenorphine: continue baseline buprenorphine (though some still stop pre-op). May split baseline dose into tid or qid dosing, +/temporary increase in dose. Use multimodal nonopioid analgesic strategies, supplemented with incremental opioid prn. May do better with fentanyl or hydromorphone
- Naltrexone: stop 3 days pre-op (or XR 1 month pre-op). Maximize non-opioid pain control and regional anesthesia.
- Abstinent: caution against return to use. If mild-moderate pain, can try buprenorphine for short term acute pain.

Buprenorphine for Chronic Pain

- May be helpful for patient with high-risk opioid regimen, or for patient with concurrent OUD
 - Less opioid induced hyperalgesia, respiratory depression, overdose
- Be clear in documentation: are you treating chronic pain, OUD, or both?
- No DEA waiver needed for pain management purposes
- Patch or buccal film (generally lower strengths than OUD forms)
 - But, sublingual film and tabs, as in for OUD, can also be used <u>off-label</u> for chronic pain

Buprenorphine Induction for Chronic Pain

| | | 1 6-1 |
|-----------|--------|------------|
| Bunrenorr | hinehi | iccal film |
| Buprenorp | | |

Buprenorphine transdermal patch

• Taper opioid regimen over 7 days to <30 MME per day; then stop when buprenorphine is started

| Those who were on <30 MME per day | Initial: 75mcg once daily or bid | Those who were on <30 MME per day | Initial: 5mcg/hr weekly |
|--|---|---|--|
| Those who were on 30-89 MME per day | Initial: 150mcg bid | Those who were on 30- 79 MME per day | Initial: 10mcg/hr weekly |
| Those who were on 90-160 MME per day | Initial: 300mcg bid (film may not be enough for those on >160 MME per day) | Those who were on >80 MME per day | Initial: 20mch/hr weekly (this is max dose, but may not be enough) |
| | Titrate up every 4 days by 150mcg bid (max 900mcg bid) | | Titrate up every 3 days by 5-10mcg/hr (max 20mcg/hr weekly) |

Buprenorphine Induction for Chronic Pain

Bernese Method (using sublingual buprenorphine, <u>off-label</u> for pain):

- Small repetitive doses
- Stop opioids (illicit or prescribed) after 8mg buprenorphine is begun
- To avoid withdrawal

Day 1: 0.5mg once a day Day 2: 0.5mg twice a day Day 3: 1mg twice a day Day 4: 2mg twice a day Day 5: 3mg twice a day Day 6: 4mg twice a day Day 7: 12mg (stop other opioids)

References

McDonagh MS, et al. Agency for Healthcare Research and Quality (AHRQ) (Apr 2020). *Nonopioid Pharmacologic Treatments for Chronic Pain*. Comparative Effectiveness Review No. 228. Rockville, MD. <u>https://effectivehealthcare.ahrq.gov/sites/default/files/pdf/nonopioid-chronic-pain.pdf</u> <u>Accessed 6/4/22</u>.

Community Care of North Carolina (CCNC) (Oct 2012). *Project Lazarus Tool Kit: Primary Care Provider*.

https://www.projectlazarus.org/_files/ugd/540bd6_d121b20a48304d5d8d44404467b838ce.pdf Accessed 6/4/22.

American Academy of Family Physicians (AAFP) (2021). *AAFP Chronic Pain Toolkit*. AAFP website. <u>https://www.aafp.org/dam/AAFP/documents/patient_care/pain_management/cpm-toolkit.pdf</u> Accessed 6/4/22.

Taube D, Stacey BR (Apr 1, 2022). *Pharmacologic Management of chronic non-cancer pain in adults*. UpToDate. Accessed 6/5/22.

Centers for Disease Control (CDC). *Nonopioid Treatments for Chronic Pain*. CDC website. <u>https://www.cdc.gov/drugoverdose/pdf/nonopioid_treatments-a.pdf Accessed 6/4/22</u>.

Dowell D, Haegerich TM, Chou R. Centers for Disease Control (CDC) (Mar 8, 2016). *CDC Guidelines for Prescribing Opioids for Chronic Pain – United States, 2016*. MMWR Recomm Rep. 2016;65 (No. RR-1):1-49. <u>https://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm</u> Accessed 5/31/22.

Food and Drug Administration (FDA) (Oct 1, 2020). *Disposal of Unused Medicines: What You Should Know*. FDA website. <u>https://www.fda.gov/drugs/safe-disposal-medicines/disposal-unused-medicines-what-you-should-know</u> Accessed 6/5/22.

North Carolina Medical Board (NCMB) (Jun 8, 2016). *Clarifying Some Points about NCMB's New Opioid Investigations Program*. NCMB website. <u>https://www.ncmedboard.org/resources-information/professional-resources/publications/forum-newsletter/article/clarifying-some-points-about-ncmbs-new-opioid-investigations-program</u> Accessed 5/31/22.

NC Department of Health and Human Services (NC DHHS), NC Division of Medical Assistance (Oct 1, 2016). *Medicaid and Health Choice Clinical Coverage Policy No 9.* NC DHHS website. <u>https://medicaid.ncdhhs.gov/media/1280/download#LockIn</u> Accessed 6/4/22.

North Carolina Medical Board (NCMB) (Jan 2017). *Policy for the Use of Opioids for the Treatment of Pain*. NCMB website. <u>https://www.ncmedboard.org/resources-information/professional-resources/laws-rules-position-statements/Policy for the use of opiates for the treatment of pain Accessed 5/31/22.</u>

North Carolina Medical Board (NCMB). *Controlled Substances CME Requirement*. NCMB website. <u>https://www.ncmedboard.org/resources-information/faqs/controlled-substances-cme-requirement</u> Accessed 5/31/22.

North Carolina Medical Board (NCMB) (Jun 30, 2017). *The Strengthen Opioid Misuse Prevention (STOP) Act of 2017.* NCMB website. <u>https://www.ncmedboard.org/resources-information/faqs/controlled-substances-cmerequirement</u> Accessed 6/4/22.

Community Care of North Carolina (CCNC) (2018). *Important Information about Opioid Safety PA Criteria or NC Medicaid & Health Choice Beneficiaries*. CCNC website. <u>https://medicaid.ncdhhs.gov/media/4393/download</u> Accessed 6/4/22.

North Carolina Harm Reduction Coalition (NCHRC). *911 Good Samaritan and Naloxone Law in NC.* NCHRC website. <u>https://www.nchrc.org/naloxone-od-prevention-2/911-good-samaritan-and-naloxone-law-in-nc/</u> Accessed 6/3/22.

Newsome M (Jan 6, 2022). Contradictory State Laws Aimed at Stopping Drug Overdose Aren't Applied Equally. NC Health News. https://www.northcarolinahealthnews.org/2022/01/06/contradictory-state-laws-aimed-at-

stopping-drug-overdoses-arent-applied-equally Accessed 6/3/22.

North Carolina Department of Health and Human Services (NC DHHS). *Opioid and Substance Use Action Plan Data Dashboard*. NC DHHS website.

https://www.ncdhhs.gov/opioid-and-substance-use-action-plan-data-dashboard Accessed 6/3/22.

Beatson K. *How to Implement the Safe Use of Opioids eCQM (CMS 506).* Medisolv website. <u>https://blog.medisolv.com/articles/how-to-implement-the-opioid-ecqm</u> Accessed 6/4/22.

Salls A. *HEDIS 2020 – Managing High-Risk Opioid Use*. SS&C Blog website. <u>https://www.ssctech.com/blog/hedis174-2020managing-high-risk-opioid-use</u> Accessed 6/4/22.

Community Care of North Carolina (CCNC) (2017). *Provider Considerations for Tapering of Opioids*. CCNC website. <u>https://medicaid.ncdhhs.gov/media/3656/download</u> Accessed 6/4/22.

Lee G. Association of American Medical Colleges (AAMC) (Feb 18, 2022). *CDC Issues Updated Guidelines for Prescribing Opioids*. AAMC website. <u>https://www.aamc.org/advocacy-policy/washington-highlights/cdc-issues-updated-guideline-prescribing-opioids</u> Accessed 6/4/22.

Substance Abuse and Mental Health Services Administration (2021). *TIP 63: Medications for Opioid Use Disorder*.

https://store.samhsa.gov/sites/default/files/SAMHSA_Digital_Download/PEP21-02-01-002.pdf Accessed 6/2/22.

Rosenquist R (Jan 21, 2021). Use of opioids in the management of chronic non-cancer pain. UpToDate. Accessed 6/5/22.

Powell PD, Rosenberg JM, Yaganti A. *Evaluation of Buprenorphine Rotation in Patients Receiving Long-Term Opioids for Chronic Pain: A Systematic Review*. JAMA Netw Open. 2021;4(9):e2124152.

https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2784021 Accessed 6/5/22.

Coffa D, Carr D (Jan 10, 2022). *Management of Acute Pain in Adults with Opioid Use Disorder*. UpToDate. Accessed 6/5/22.

Randhawa PA, Nolan S. Buprenorphine-naloxone "microdosing": an Alternative Induction Approach for the Treatment of Opioid Use Disorder in the Wake of North America's Increasingly Potent Illicit Drug Market. Canadian Medical Association Journal. 2020 Jan 20;192(3):E73. <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6970598/</u> Accessed 6/5/22.