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Use of Opioids for Pain Management: Educating Patients and Providers on Upcoming Changes to Vermont State Law

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Problem Identification & Description of Need

Vermont is suffering from an "opioid epidemic"

- 3 out of 4 people who used heroin in 2013 **misused opioids first**[1]
- In 2016, there were 112 opioid-related fatalities in Vermont[2]

Even when opioids are not being abused, chronic opioid use is associated with adverse health outcomes including[3]:

- Sleep disorders
- GI dysfunction
- Hyperalgesia
- Immunosuppression
- Osteoporosis/increased risk of fracture
- Tooth decay
- Overdose, death
  - Doses >50 MME/day are associated with 2x increased risk of overdose than doses <20 MME[4]

Public Health Cost

National economic cost of opioid abuse is high, especially in VT:

- In 2013, the estimated cost for opioid overdose, abuse, and dependence in the US was greater than **$78.5 billion**[5]
  - This number includes health care costs, criminal justice costs, and loss of workplace productivity
  - This estimate is significantly increased from $55.7 billion in 2007[6]
- In Vermont, the estimated cost for 2016 was >$84,000,000
  - This is also increased from an estimated $38,109,065 in 2007[7]

The opioid epidemic also affects non-users:

- VT has the 2nd highest rate of infants born with Neonatal Abstinence Syndrome after prenatal exposure to opioids[8]

Community Perspective

Community perspective: **Benjamin Cavaretta, Berlin Police Department**

- On the opioid epidemic…
  - Overdose isn't the only negative consequence of opioid addiction – almost all retail thefts, robberies, larcenies, and burglaries are committed by people trying to support their addiction
  - A large majority of current heroin abusers report that their addiction began with prescription medication
- Thoughts on the upcoming change in legislation…
  - Limiting the access to opioids is a step in the right direction
  - Hope that it will decrease the number of people becoming newly addicted to opioids
    - Some concern that decreased opioids in the community may cause a surge in heroin use

Provider perspective: **Dr. Dale Stafford, MD**

- On the opioid epidemic…
  - [The practice] has been seeing more patients with opiate abuse and overuse now more than ever
  - The epidemic has caused the practice to implement changes in workflow, such as monitoring the VPMS, urine drug screens, and seeing patients more often – this burdens providers, staff, and patients
- Thoughts on the upcoming change in legislation…
  - Hope that it will lead to fewer opioids in the community to be diverted and abused
  - Somewhat fearful of the pendulum swinging the other way, in which patients will be short-changed when they need meds, causing the burden to fall on us [primary care providers]

New Rules for Opioid Prescribing: What Patients & Providers Need to Know

The change:

As of **July 1, 2017**, new legal requirements will be in place for prescribing opioids to treat pain in Vermont. These changes apply to the treatment of both acute and chronic pain.

Mean morphine equivalent (MME) = standard value based on morphine that is used to compare opioid potencies

Acute pain is pain that lasts **less than 90 days** and is what is expected after a surgical procedure, trauma, or specific disease. For patients who have not used opioids for >7 consecutive days in the past month ("opioid naïve"), **dose limitations** have been established (see chart, for adults over 18).

Pain	Average Daily MME (can taper)	Prescription total MME based on expected duration of pain	Common average daily pill count
Minor pain: Molar removal, sprains, non-specific low back pain, headaches, fibromyalgia, undiagnosed dental pain	No opioids	0	0
Moderate pain: Non-compound bone fracture, most soft tissue and outpatient laparoscopic surgeries, shoulder arthroscopy	24 MME/day	0-3 days: 72 MME 1-5 days: 120 MME	4 hydrocodone (5mg), 3 oxycodone (5 mg), or 3 hydromorphone (2 mg)
Severe pain: Many non-laparoscopic surgeries, maxilofacial surgery, total joint replacement, compound fracture repair	32 MME/day	0-3 days: 96 MME 1-5 days: 160 MME	6 hydrocodone (5 mg), 4 oxycodone (5 mg), or 4 hydromorphone (2 mg)
For patients with severe pain and extreme circumstances, the provider can make a clinical judgement to prescribe up to 7 days, as long as the reason is documented in the medical record.			
Extreme pain: Like severe pain, but with complications or other special circumstances	50 MME/day	7 day max = 350 MME	10 hydrocodone (5 mg), 6 oxycodone (5 mg), or 6 hydromorphone (2 mg)

Chronic pain is pain that lasts **longer than 90 days**. For patients being initiated on opioids to treat chronic pain, the following requirements must be met:

- Non-opioid alternatives have been maximized
- There has been a trial use of the opioid
- The Vermont Prescription Monitoring System has been queried
- A Controlled Substance Treatment Agreement has been signed, with information regarding treatment goals, pharmacy selection, storage/disposal of medication, and requirements set by the physician/practice (ex. random **urine drug testing, pill counts**, etc.)

Throughout treatment with chronic opioid pain management, additional requirements include:

- Reevaluation of risk factors, dosage, and effectiveness **every 90 days**
- Review of the Controlled Substance Treatment Agreement **at least once per year** → decision can be made to continue with opioids or consider alternatives
- Pain management, substance abuse or pharmacological consultations may be considered if:
  - Goals of treatment are not being met with increasing doses of medication
  - Patient is at high risk for misuse, abuse, diversion, addiction, or overdose *or* provider suspects or confirms misuse
  - Patient has been prescribed multiple controlled substances
  - Multiple prescribers and/or pharmacies are being utilized

Naloxone/Narcan (overdose reversal agent) will be prescribed if:

- Patient is on **>90 MME/day**
- Patient is **on benzodiazepines** in addition to opioids

Dosages > 50 MME/day are associated with a 2x increased risk of overdose than dosages <20 MME/day[1]

Adapted from "Rule Governing the Prescribing of Opioids for Pain," Vermont Department of Health, 2017. [1]CDC, "Calculating Total Daily Dose of Opioids for Safe Dosage."

Intervention and Methodology

New legislation (effective 7/1/17) was created to address this crisis and promote safe prescribing practices.

To inform the both providers and patients about the upcoming changes, an information sheet was created.

- Given to patients on chronic opioids or requesting opioids for acute pain
- Given to providers to keep as a reference

Results/Response

Providers responded positively to the handout:

- Feel that it will be helpful in explaining new changes to patients during limited appointment times
  - Plan to keep forms in patient rooms for easy access
- Feel that it will also be beneficial for providers to have a quick reference for dosage limitations

Evaluation of Effectiveness & Limitations

Effectiveness:

- Patients can be provided with information sheet, and physicians can assess understanding at future follow-up visits
- Periodic reviews of the EMR to assess opioid prescribing trends over the next year

Limitations:

- Given the short time-course of the clerkship, I was not able to survey patients to assess their understanding of prescribing regulations and compare after handout distribution
  - Additionally, there was not time to survey providers
- Handout was only distributed to patients being treated at Berlin Family Medicine

Recommendations for Future Interventions/Projects

Survey patients about their perspectives on opioids for pain management.

- Assess understanding of and perspective on the new legislation
- Assess understanding of the risks of chronic opioid use

Survey providers about implementation of new regulations.

- Assess how providers feel that new regulations have changed their practice, if at all
- Assess for push-back from the community, and how providers handle such situations

Create opioid smartlist for the EMR

- Create a simple checklist that can be filled in when opioids are to be prescribed
  - Will allow providers to ensure that requirements are being met and appropriately documented

References

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4: ”Calculating Total Daily Dose of Opioids for Chronic Pain,” Center for Disease Control (2017). https://www.cdc.gov/drugoverdose/pdf/calculating_total_daily_dose-a.pdf

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8: Ko JY, Patrick SW, Tong VT, Patel R, Lind JN, Barfield WD. Incidence of Neonatal Abstinence Syndrome — 28 States, Department of Health, 2016. http://1999–2013. MMWR Morb Mortal Wkly Rep 2016;65:799–802. DOI: http://dx.doi.org/10.15585/mmwr.mm6531a2