Opioids and Chronic Pain-Where Do We Go From Here?

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Objectives

- General overview of opioids and the opioid epidemic
- How we got to where we are
- Where are we now?
- What does the future look like/treatments on the horizon?
- Current research
- Treatment recommendations
- How I personally approach pain management/treatments/etc.

- **Pain**: an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage (emphasis added).

- **Chronic pain**
  - Pain present 3-6 months after the original insult
    - Arbitrary, not specific for a particular condition.

    VS

  - Pain that extends beyond the expected period of healing.
    - Also arbitrary
      - How long does it take to "heal" from a L2-L5 PSF? What if there is still pathology in the area?

- **Tolerance**: A physiological state in which a person requires an increased dosage of psychoactive substance to sustain a desired effect.
  - Doc, it worked at first but isn't working anymore.
  - Not the same as addiction

- **Dependence**: A physiological process whereby the body "gets used to" the drug and with discontinuation the patient experiences withdrawal symptoms.
  - Not the same as addiction

- **Addiction**: A behavioral pattern/problem. The compulsive use of the drug results in physical, psychological, and/or social harm to the user and its use continues despite this harm.

- **Opioid use disorder**: A problematic pattern of opioid use leading to clinically significant impairment or distress

- Use of an opioid in increased amounts or longer than intended
- Persistent wish or unsuccessful effort to cut down or control opioid use
- Excessive time spent to obtain, use, or recover from opioid use
- Strong desire or urge to use an opioid Interference of opioid use with important obligations
- Continued opioid use despite resulting interpersonal problems, social problems (e.g., interference with work), or both
- Elimination or reduction of important activities because of opioid use
- Use of an opioid in physically hazardous situations (e.g., while driving)
- Continued opioid use despite resulting physical problems, psychological problems, or both
- Need for increased doses of an opioid for effects, diminished effect per dose, or both†
- Withdrawal when dose of an opioid is decreased, use of drug to relieve withdrawal, or both†

Where have we been

- Chronic pain management synonymous with the difficult patient
- Why difficult?
- Chronic pain is one of the biggest reasons for clinic/hospital visits in the United States
- Costs attributed to chronic pain are quite high

- Pain is subjective (as you well know).
  - One person's 3 (on a NRS) is another person's 10.
  - There is no objective way to verify pain making pain management challenging at times.

- Multiple tools have been tried to quantify a patients pain.
  - Often times better to look at trends with treatment but nothing is perfect.

- Many forms of chronic pain have proven difficult to treat.
  - What constitutes an "effective" treatment to the physician may not be the same expectations of the patient.

- Prescription opioid epidemic traced back to the 1990's
  - Some same earlier, some say later
- Starting in the late 1990's state medical boards started curtailing restrictions on opioids for chronic non-cancer pain
- Pharmaceutical companies aggressively marketed these drugs
- Numerous organizations promoted the use of high dose opioids
- It was thought that the risk of addiction/dependence was low
- No long term studies regarding opioids
- Pain as the 5th vital sign
- Patient satisfaction scores and treatment

Prescription opioid epidemic (continued)

- Americans (4.6% of the world population) now consume >80% of the global opioid supply.
  - We consume >99% of the worlds hydrocodone supply.

- From 1997-2007 in this country we saw an increase in:
  - MS by 222%, Hydrocodone by 280%, Dilaudid (hydromorphone) by 319%, Fentanyl by 525%, Oxycodone by 866%, and Methadone by 1290%

Opioid environment (continued)

- With the increase in prescribing came an increase in a number of issues:
  - Opioid deaths now account for more deaths than MVC's and suicides combined
  - **Unintentional** overdose deaths
    - 1999-2,901
    - 2007-11,499
    - 2013-approximately 17,000
      - 46/day as it stands
    - 2016-63,642 (>21% increase from 2015)
    - 2017-70,237 (9.6% increase from 2016)
      - Big rate increase in synthetic opioids

Synthetic opioids

- killed 28,000 in 2017
- Tend to be highly potent
- Tramadol, fentanyl, methadone the more common ex.
- Biggest rate in those 25-44
- Fentanyl analogues in the news lately
- Carfentanyl 10,000 X more potent than fentanyl
- Large influx from outside the country

Opioid environment (continued)

- Diversion
  Intentional and unintentional is a real problem
- Lack of monitoring of patients while on opioids
- No max dose (depending on the clinician writing)
  Unfortunately leaves a lot of room for incorrect/inappropriate escalation (more is always better right?).
- How many other drugs do we have where we don't have a max dose/toxic dose when writing?
- Dr's, NP's and PA's don't know what they are doing with these medications at times
  Ok to start but don't know what to do with them afterwards.
- Lack of training is a daily discussion
- Continues to be an issue with regards to prescribing in terms of monitoring and lack of adherence to standards

Where are we now?

- In the midst of one of the worst epidemics in our history
- Every day you hear about an executive or practitioner going to jail/losing their license for inappropriate prescribing
- Influx of cheaper drugs in combo with increased difficulty with getting prescription drugs has led to another crisis
- Our prior “knowledge” has led to current issues

CDC guidelines

- To serve as guidelines for the primary care physician and midlevel providers
- Some like them, some don't
- Can be seen as a way to "get out of" writing the medication
- Should NOT be used as a crutch
- Should not have to rely on guidelines as an excuse not to write medications
- Based off of the current/more up to date research with a whiff of control issues

➢CDC guidelines (continued)

- ➢Good reference for all of us
- ➢When to start, when to stop
- ➢Who to start them on
- ➢Consideration of dosage
- ➢Monitoring/screening
- ➢When to stop out of concern for opioid use disorder

- Montana prescribing rate (per 100)-CDC
  - 2015-73.3
  - 2016-69.8
  - 2017-61.1

- Also a general trend across the country towards a decrease in prescriptions of opioids

Total number and rate of opioid prescriptions dispensed, United States, 2006–2017-CDC

Year	Total Number of Prescriptions	Prescribing Rate Per 100 Persons
2006	215,917,663	72.4
2007	228,543,773	75.9
2008	237,860,213	78.2
2009	243,738,090	79.5
2010	251,088,904	81.2
2011	252,167,963	80.9
2012	255,207,954	81.3
2013	247,090,443	78.1
2014	240,993,021	75.6
2015	226,819,924	70.6
2016	214,881,622	66.5
2017	191,218,272	58.7

➢Opioids being used less

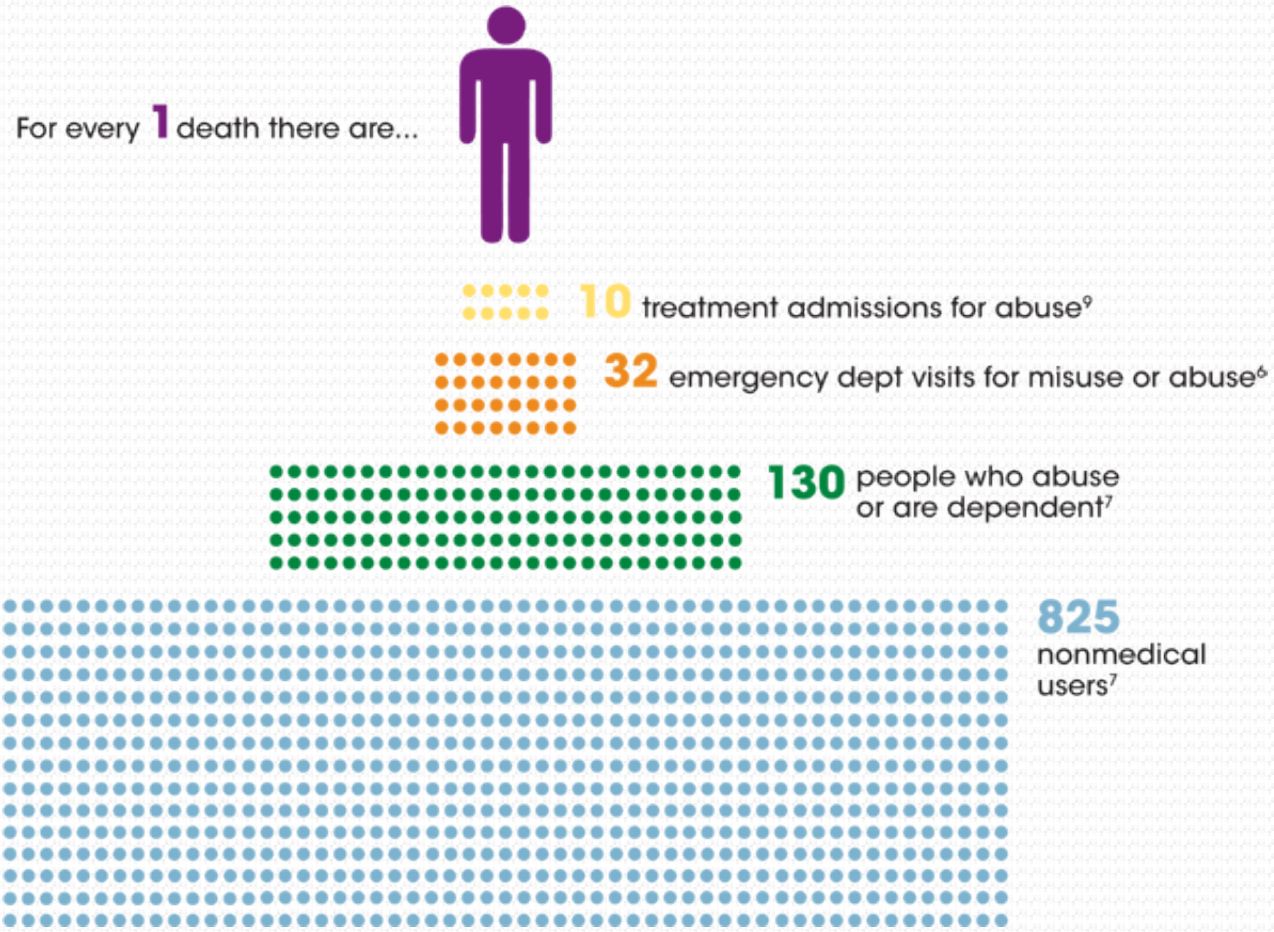
- ➢Multimodal pain management
- ➢Opioids not used as first line agents as often
- ➢Opioids deferred secondary to “comfort” of practitioner
- ➢Folks starting to see that long term opioids really aren’t all that great beyond approximately 6 months
- ➢Closer documentation and follow up with regards to opioids
- ➢As compared to seeing yearly, now being seen more frequently
- ➢More reluctance to use opioids in general
- ➢More research

- Unintended consequences?
- More NSAID, acetaminophen use
  Increased risks?
  Renal, CV, Bleeding, etc.
- Problem is….we aren't good at treating chronic pain at times
- A thorough understanding of patients individual conditions needed
- Risk vs benefit (as with all medications/therapies)
- Realistic expectations need to be set

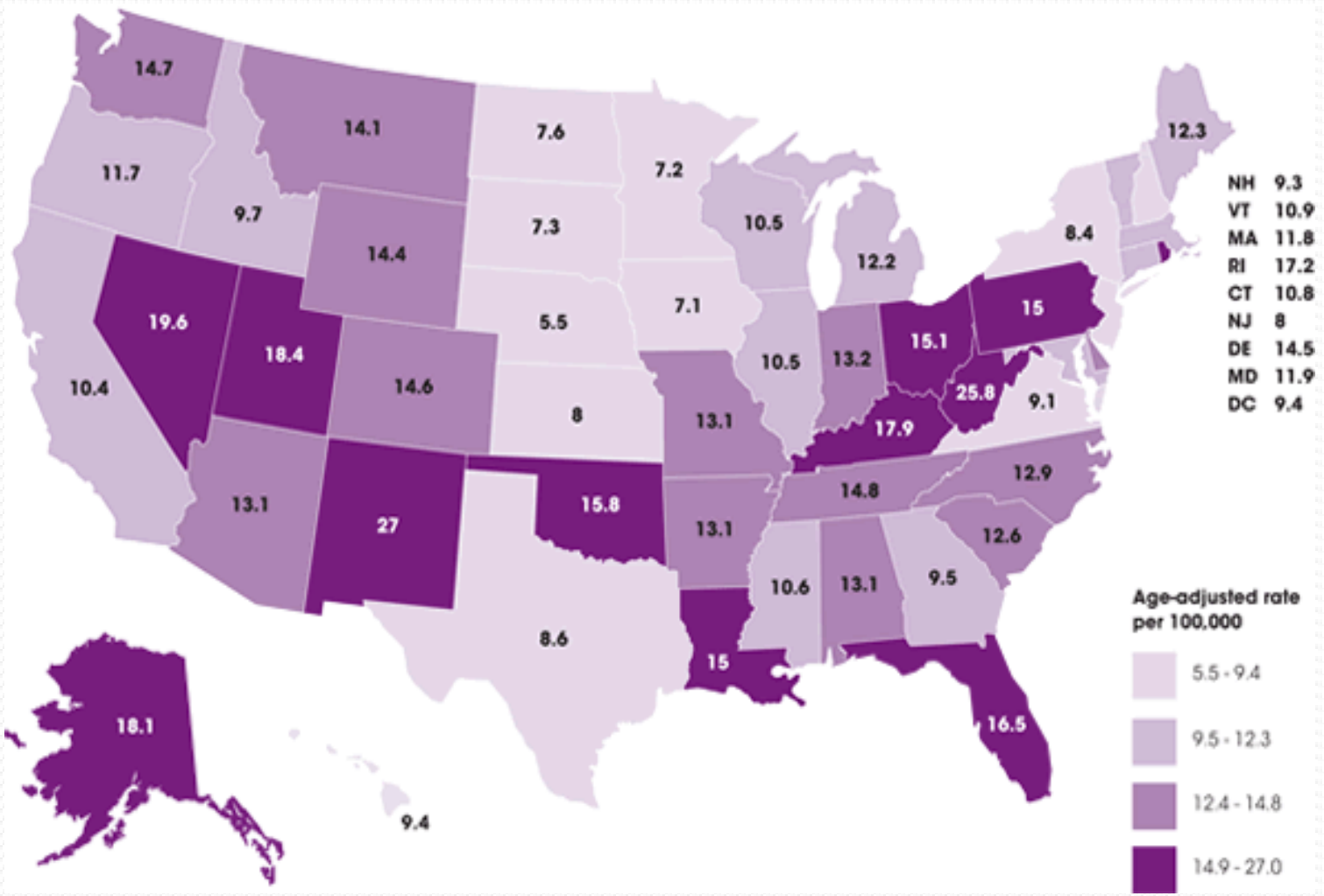
- Opioids for **chronic non-cancer pain**
  - There are certain conditions where I will use them (few) as there has been shown to be slight benefit.
    - Neuropathic states, central pain states, CRPS, etc.
  - Vast majority of studies show only mild/no benefit in the long run.
    - Of note there are very few/no significant, well laid-out studies on chronic opioids.
      - There are a number of studies showing worsening functioning with long term opioids.
    - It has been acknowledged that opioids are prescribed because many arguments in favor of opioids are solely based on traditions, expert opinion, practical experience, and uncontrolled anecdotal observations.

- There have been, however, numerous studies on the side effects of long-term chronic opioid use showing:
  - Immune system suppression
  - Osteoporosis
  - Vitamin D suppression (implications?)
  - Sex hormone dysfunction (CV implications?)
  - Opioid-induced hyperalgesia (doesn't happen often but I have seen this).
- This in addition to misuse, diversion, abuse, and the potential for serious consequences (death) when combined with other sedatives/hypnotics.

From the CDC


For every 1 death there are...
10 treatment admissions for abuse[9]
32 emergency dept visits for misuse or abuse[6]
130 people who abuse or are dependent[7]
825 nonmedical users[7]

And lastly….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16.5
18.1
9.4
NH 9.3
VT 10.9
MA 11.8
RI 17.2
CT 10.8
NJ 8
DE 14.5
MD 11.9
DC 9.4
Age-adjusted rate per 100,000
5.5 - 9.4
9.5 - 12.3
12.4 - 14.8
14.9 - 27.0

Where are we going?

- Stem cell treatments
- Gene therapy
- Targeted neuromodulation
- Better abuse deterrent medications

- U receptor agonists with no addiction potential
- Pain Generator specific therapy

What about the problems that came with increased opioid utilization?

➢Opioid use disorder and treatment

➢We have contributed to one of the biggest substance abuse problems ever, we need to work on supporting those involved.

➢With the growing understanding of the SE's of opioid's/unintended consequences comes treatment
➢FDA approved meds
➢Methadone, Buprenorphine, Naltrexone

➢Suggested to have concurrent counseling/therapy

➢Lifelong treatment?
➢Lifelong disease
➢Relapse rates

➢Opioid use disorder and treatments (cont.)

- ➢Very time consuming
- ➢Need to have empathy and realistic expectations
- ➢Understand that relapses are common
- ➢Need to know the drugs involved
- ➢X-waiver (isn’t enough)

- So you have a patient that you would like to start on/continue on opioids based on their current state. Now what?
  - The prescribing physician has to have a clear outcome that they are trying to obtain when prescribing the medication.
    - Can be said for any medication we start a patient on.
    - Goals: increased function, quality of life, return to work?
    - Patient satisfaction should not be a sole goal in opioid management.

- Optimize/initiate other non-opioid treatments.

- Review outside/in-house records, MRI's, etc.
  - Identify the pathology that they are being given the opioids for.

- Perform an analysis via the Montana prescription drug registry
  - Recommend doing this before initiation as well as with every follow up.
  - Would be surprised what you will find some times.

- Urine drug screen on all patients (or blood testing if unable to void)
  - Looking for illicit use, diverted use, lack of compliance with prescribed medications, etc.
  - Done before prescribing for the patient.
  - Recommend every 3-6 months at a minimum for the first year at least and then randomly as seen fit depending on the patient, hx of abuse, your comfort, etc.
    - You DO NOT have to write for opioids prior to the UDS being performed.
      - I do not write for opioids until I have a drug screen back.
- Screen for risk (ORT, SOAPP-R, COMM etc.) as needed.

- If you write opioids you realize that your being monitored
  - Regardless of “deserving” it or not
  - When in doubt….document
  - Screen for other substance abuse issues
    Alcoholism a huge concern
    Tobacco abuse common-also associated with poor control of chronic pain

- Documentation, documentation, documentation
  - Each visit gets the 5 A's
    - Analgesia (is it helping the pain)
    - Activities of daily living (is it helping)
    - Adverse Effects
    - Aberrant-drug-seeking behaviors noted
    - Affect/mood

- Opioid contract-a must
  - Explain what happens if they violate this contract.

- Have a clear end-point for escalation/termination.
  - Tolerance and dependence can be a real issue
  - Many patients can't tolerate the SE's of long term opioids
  - Can put in the NRS score if you would like. May be helpful for trends.
  - Make sure on a good bowel regimen.
  - Consider an opioid rotation as opposed to continued escalation.
  - Communicate this endpoint w/ the patient **prior** to initiation of tx.

- For the appropriate patient I will write a short (2 week) course of opioids as a trial:
  - Only after negative UDS (not written for same day)
  - No relief and I discontinue the medication (in the opioid naïve and tolerant pt. as my initial dose is adjusted for past treatments).
    - I wouldn't continue a BP or cholesterol lowering medication if it wasn't working.
    - Maybe they just need more?
      - At the discretion of the prescriber. Might be ok but have to have an idea of when to stop escalating and try something different.
      - **What's your endpoint** (needs to be communicated w/ the pt)?
        - Can lead to frustration/confusion

When do I personally use long-term opioids?

- Cancer pain/severely debilitating pain.
  - Much more liberal. Side effects can often-times limit their use.
  - Often have these patients come back more frequently to assess improvement/help as tolerated.

- Neuropathic pain states
  - Usually my 3rd line treatment.
  - Again w/ same endpoints. Often times take a bit more to find relief as compared to other pain states.

- Severe, debilitating osteoarthritis
  - No good data on this (much like a lot of other pain states)
  - After other medications/modalities (PT, injections, etc.) have been tried

- Other severe, debilitating diseases
- Central pain states, other terminal diseases
- Others on a case-by-case basis.
- No one way to write for opioids. Need to use best clinic judgment.
- Not a question of comfort with prescribing but rather appropriateness and the risk of harm vs benefit in most cases.

- Who I will **not** write/be very cautious in writing opioids for:
  - Fibromyalgia
    - Vast majority of data does not support this. No good indication.
    - Numerous articles showing worse pain w/ this medication.
  - Patient with "pain all over"
    - No definable pathology
  - Patients with abdominal pain w/ no known source
  - Patients on **any** form of benzodiazepines
    - Other/better forms of muscle relaxants available
    - Much higher likelihood of accidental overdose death
    - Often treating underlying anxiety which significantly heightens pain perception
    - Focus more on coping skills

➢Who I will not write opioids for (cont.)

- ➢Patients on Soma
- ➢Patients w/ any other illicit drugs in their urine during testing
- ➢Other substance abuse issues
- ➢Those who have not tried other modalities

- Every practitioner approaches chronic opioid therapy differently and I am not offended if the PCP wishes to continue/initiate this class of medication.
- Always happy to make recommendations on the opioid tapers should the situation dictate it/the PCP request it.
- Also happy to support a PCP's current plan w/ regards to opioids.
  - Or provide an alternative direction.
- Always happy to see patients for other modalities should the PCP want to continue opioids through their clinic.

- Specific treatments for chronic pain
  - Pharmacological
    - Membrane stabilizing medications (numerous)
    - NSAIDs (meloxicam, etodolac, etc.), COX-2 inhibitors, therapeutic Tylenol, etc.
    - TCA's-shown to be helpful in certain pain states and at doses lower than used for treating depression
    - SNRI's-Cymbalta (shown to be helpful at lower doses for certain pain states)
    - SSRI's
    - Topical agents (lidocaine, compounded, capsaicin, etc.)
    - Muscle relaxants (tizanidine, Flexeril, methocarbamol, baclofen)
    - Others

- Specific treatments (cont.)
  - Physical therapy
    - Aqua therapy-helpful in certain arthritic states, recommended for other pain states
      - Removes gravity from picture.
    - ROM exercises
    - “Core strengthening” exercises
    - Aerobic exercises-difficult in a lot of pain states but certain populations respond well.
    - Massage therapy-helpful in myofascial pain states.

- Injectable therapies
  - As indicated. Not everyone is a candidate.
  - Good data depending on the injection offered/disease state.
  - Shown to improve functioning/QOL w/ certain injections/dorsal column stimulation.
  - ESI's, Myofascial TPI's, intramuscular injections (piriformis, etc.), facet joint injections/RFA, PNB's/ablations, etc.

- Counseling/therapy
  - Major contributing factor to pain is depression/anxiety.
  - Did the pain cause the depression or did the depression contribute to the pain?
    - Often difficult to tell in a chronic pain patient
  - Needs to be a part of a these patients overall improvement.

- Patient involvement

In the end

- There is no “right way”
- There are a lot of “wrong ways”
- General tenants
- Limit the amount of opioids prescribed
- If you start a medication I better know how to titrate up OR down and discontinue
- Communicate prior to initiation
- Realistic expectations
- Employ multimodal approaches when applicable
- Get access to mental health when possible
- If your not comfortable DO NOT WRITE
- Don’t start something you expect someone else to take over for you.

Summary

- It is generally agreed that mistakes and misinformation in the past have lead to a serious opioid issue today.
- We still aren't great at treating chronic pain.
- Chronic pain patients can sometimes be the most difficult patients to treat.
  - A bad combination when you have variable treatment, mental health, and a constant physical reminder of an illness present.
- Opioids have historically been used out of ease of writing, cost, lack of benefit from other modalities
- Utilizing a combination of modalities and reevaluating the most current literature and recommendations we can aim to provide patients with the most up-to-date treatments while minimizing risk and harm.

Thank you