Show Notes and Transcripts for CO*RE REMS Podcast Episode 2

Show Title: *Striking a Balance: Understanding Pain & Opioids*

Episode Title: Introduction to Comprehensive Pain Management

Description/Episode Summary:
This podcast episode is the 2nd of 3 in a series on comprehensive pain management strategies that maximize treatment effectiveness while minimizing addiction risk and maintaining patient safety. In this episode, Arianna Campbell, PA, and Jarratt Pytell, MD, join Amanda Latimore, PhD, to discuss comprehensive pain management strategies, and providing a top-line overview of opioid and nonopioid medications, also noting the role of short-acting opioids for acute pain in chronic conditions and also options for nonpharmacologic therapies. They emphasize the importance of aligning the treatment plan with the patient's goals for function, quality of life and self-efficacy through individualized, patient-centered care. and the necessity of open communication, trust, and mutual respect in building a therapeutic alliance.

Speakers
- Jarratt Pytell, MD (Addiction Medicine physician)
- Arianna Campbell, MPH, PA-C (Emergency Department and Addiction Medicine PA)
- Amanda Latimore, PhD (Moderator, Epidemiologist)

Acronyms used in this podcast episode:
- MME: Morphine Milligrams Equivalent
- CDC: Center for Disease Control
- PDMP: Prescription Drug Monitoring Programs
- JGIM: Journal of General Internal Medicine
- WHO: World Health Organization
- SNRI's: Serotonin – norepinephrine reuptake inhibitor

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Resources
- Link to CE activity associated with this podcast in the e-Learning Center.

Research Articles mentioned in the episode

- Incze MA. *Redesigning Opioid Pain Agreements to Promote Patient-Centered Care*. JAMA Intern Med. 2023 Mar 1;183(3):179-180. doi: 10.1001/jamainternmed.2022.6520 . PMID: 36745430.

- Buonora MJ, Axson SA, Cohen SM, Becker WC. *Paths Forward for Clinicians Amidst the Rise of Unregulated Clinical Decision Support Software: Our Perspective on NarxCare.* Journal of General Internal Medicine. 2024;39(5):858-862. doi:10.1007/s11606-023-08528-2

CDC Clinical Practice Guidelines

- **CDC Clinical Practice Guideline for Prescribing Opioids for Pain — United States, 2022**
  - **https://www.cdc.gov/mmwr/volumes/71/rr/rr7103a1.htm**

- *The link below **is included for historical context only!!!!** – for CDC's current recommended practice, please refer the 2022 update of the guidelines*
  CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016
  https://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm

WHO Analgesic Ladder

- WHO Analgesic Ladder

https://www.ncbi.nlm.nih.gov/books/NBK554435/

Information about accessing over-the-counter naloxone nasal spray.

- **Press release: FDA Approves First Over-the-Counter Naloxone Nasal Spray** https://www.fda.gov/news-events/press-announcements/fda-approves-first-over-counter-naloxone-nasal-spray

- National Harm Reduction Coalition's Naloxone Finder or NEXT Distro locator to access free Narcan near you.

CO*RE REMS Podcast Two with Arianna, Amanda & Jarratt: Creating the Treatment Plan

[00:00:00] Introduction to Comprehensive Pain Management

Amanda Latimore: Welcome back. In today's episode, we have our two favorite addiction medicine providers, Arianna and Jarratt, joining us again, and we're focusing on developing a comprehensive pain management plan.

[00:00:15] Aligning the Treatment Plan with Functional Goals, Quality of Life and Self-Efficacy Goals

Amanda Latimore: Let's start by discussing the key elements to consider when setting treatment goals and how these goals shape successful pain management outcomes.

Jarratt, do you want to take this one?

Jarratt Pytell: Sure, Amanda. Great to see you again. Well-rounded pain treatment plan should be tailored to the individual patient and likely includes a combination of pharmacologic and nonpharmacologic therapies. I think when we are setting treatment goals, it's important to keep in mind that, while we want all of our patients to be pain free that's really not always a realistic goal for patients with chronic pain.

So instead, we should really focus on three other objectives. First, restoring function, right? We want to improve their physical capabilities and reduce limitations caused by that pain. And that might help patients engage in daily activities that are meaningful to them, such as, playing with their kids or walking around the grocery store.

The next I think about is improving their quality of life and wellbeing. We know that pain has a significant impact on mental health and emotional wellbeing. And addressing these aspects of pain management might help patients feel better both physically and mentally.

And last, we need to help patients develop self-efficacy in managing their pain.

We need to work with patients to empower them with the knowledge, skills, and confidence to manage their pain which can lead to better long-term outcomes and reduced dependence on healthcare providers and prescription medications.

Amanda Latimore: Great. Thanks for sharing these three objectives, function, quality of life, and self-efficacy.

[00:01:50] Weighing Nonpharmacologic and Pharmacologic Pain Relief Options

Amanda Latimore: Arianna, in episode one, Jarratt mentioned nonpharmacologic and pharmacologic options for treating pain. What guides the choice of an approach to treating pain? And how do these approaches work for different pain conditions?

Arianna Campbell: So, thank you for that question, Amanda. Nonpharmacologic approaches can be highly effective in helping patients manage their pain. There's different approaches here, some of these are, number one, exercise, physical therapy, acupuncture, yoga, and of course hot and cold applications that you hear about often.

There's also minimally invasive interventional treatments, so these would include nerve blocks, steroid injections, epidural injections, there's spinal cord stimulators, and even trigger point injections, something that I've utilized in the emergency department. So, these can provide more targeted pain relief, and actually patients can get a lot of relief from these.

Also, not to forget lifestyle factors, so discuss sleep, nutrition with your patients. This is also empowering to help them manage pain and other factors that may contribute. And then finally, addressing cognitive behavioral therapy. So, this has been proven to help patients modify their thoughts and behaviors related to their pain and this can be an important adjunct.

While these approaches may empower patients to actively manage their pain, also improve their overall wellbeing, access is a challenge, access in terms of insurance coverage for these kinds of things, affordability. So, in these cases, pharmacologic options may become an important element of pain management. The specific type of pharmacotherapy of course

should be chosen depending on the type of pain. We've discussed before, but addressing if it's nociceptive or inflammatory, neuropathic or nociplastic.

Pharmacotherapy can support and complement nonpharmacologic approaches if the latter alone are not providing sufficient pain relief for the patient.

Also important to recognize that pain is a highly individual experience. So, what works for one person may not work for another. You have to tailor treatment approaches to the specific needs and conditions of each patient. Now, factors to consider would be the type and severity of pain, underlying medical conditions, of course, and personal preferences.

Engage your patient in their treatment plan. When you take these into account, you can create a more effective pain management plan. Successful pain management does rely on this collaboration between the patient and you, the healthcare team. So, working together to find the most effective and sustainable strategies might require a multi modal approach, combining both the nonpharmacologic and pharmacologic approaches to manage pain. And as Jarratt said, really look to improve the quality of life and function.

[00:04:37] Principles of Pharmacologic Analgesic Therapy

Amanda Latimore: Thank you, Arianna. So, what I'm hearing is that a comprehensive strategy for treatment includes both pharmacologic and nonpharmacologic approaches. So, let's focus on the principles of pharmacologic analgesic therapy, particularly nonopioid medications.

What are their mechanisms of action? What are their indications and uses? And let's consider the menu of options available. What role does route of administration play in tailoring treatment? How about formulation? Dosing strategies, initial dosing, titration, tapering. So many questions. Jarratt.

Jarratt Pytell: You're right, Amanda.

This is a big topic area. I think even before we get bogged down in the details, it's always useful to just take a step back and remember that our

approach to chronic pain is really similar to the way we approach other chronic conditions like obesity, diabetes, hypertension.

So, as with all of these conditions, we approach chronic pain treatment by layering on lifestyle interventions, nonopioid medications, and opioid medications, and additional interventions that Arianna just went over. This is in alignment with the 2022 CDC Guidelines and what is taught by the WHO, the World Health Organization pain treatment ladder. And even these can honestly be applied in acute pain, in some cases, that is.

But let's now focus on the medication. We first reached for nonopioid medications, nonsteroidal anti-inflammatories, NSAIDs, acetaminophen, and topical agents, which all can be effective for nociceptive and inflammatory pain and are often the first line treatments that we use for mild and moderate pain.

Then sometimes we reach for anticonvulsants, particularly the gabapentinoids like gabapentin and pregabalin. And those are often useful for neuropathic pain and sometimes even tricyclic antidepressants and certain antidepressants like SNRIs or serotonin, norepinephrine, reuptake inhibitors, like duloxetine.

So, fortunately for you, Amanda, and all of our listeners, we are not going to get into the pharmacology of all of these medications, but instead just focus on a top line overview.

So, generally speaking NSAIDs work by reducing inflammation and pain. And while acetaminophen's exact mechanism is not fully understood, it is thought to involve inhibiting pain signaling from the central nervous system.

Anticonvulsants like the gabapentinoids work by dampening pain signals that are generated by neurons. It shuts them down or turns them off, and that's why they're useful for neuropathic pain. And then the whole other class of medications, the antidepressants, like the tricyclic antidepressants and SNRIs, also have pain modulating effects, though their actions are usually through the action on neurotransmitters. It's important to recognize that the route of administration and the formulation of those pain medications can play an important role in tailoring the treatment to the individual patients. For example, some patients may prefer oral medications while others may benefit from

transdermal patches or topical creams. The choice really depends on factors such as the patient's ability to swallow pills, the location of the pain, and the duration of action desired.

And then when it comes to dosing, , it's really essential to start low and go slow,

Which is the same principle we use when we're prescribing opioids and honestly many other medications. So, this means that we start with the lowest effective dose and gradually increase it as needed to achieve the adequate pain relief while minimizing side effects. Again, it's really important to think about those principles of what we're trying to treat, which is not necessarily a pain number, but function and quality of life.

Jarratt Pytell: But dose titration should be done carefully and really considering the patient's response and monitoring for adverse effects. Anytime when we're starting a medication, we have to think about options for stopping, and tapering these medications is also an important consideration.

So, some medications like the anticonvulsants and antidepressants require a gradual taper to prevent withdrawal symptoms. And that gradual taper allows the patient to adjust to a lower dose over time. Of course, that is not the same with other medications like NSAIDs and acetaminophen and certain topicals.

So, it was a big overview, but I hope I hit the high points for you, Amanda.

Amanda Latimore: Great. Thank you. Yeah. And I'm just recalling some of our earlier conversation about being patient-centered and when you are tapering that it is informed by the needs of the patient and not some generalized threshold or number or screening tool.

So, I appreciate the details that you've just offered.

[00:09:33] Contraindications and Patient Safety Concerns in Pain Medication Management

Amanda Latimore: Let's discuss the potential hurdles in pain management and nonopioid medications. What are the key

contraindications, adverse events, and potential drug interactions that providers need to consider? When developing an effective treatment plan, how do you do pharmacodynamics and pharmacokinetics, Arianna?

Arianna Campbell: Contraindications are important considerations when prescribing pain medications. It's always in the back of our minds. For example, NSAIDs should be used with caution in patients with a history of gastrointestinal bleeding, renal dysfunction, or cardiovascular disease. Opioids should be used with caution in patients with respiratory disorders, such as COPD, sleep apnea, because opioids can depress respiratory function.

We should also be mindful of the serious concern about addiction and overdose with opioids and discuss this with our patients. Other potential adverse events are a significant concern and should be discussed.

So, common side effects of opioids include constipation, nausea, sedation, dizziness, increasing falls.

Other potential drug interactions can also complicate pain management. Opioids can interact with other CNS depressants such as benzodiazepines and alcohol, and that can lead to increased sedation, respiratory depression, and of course this puts people at higher risk of overdose. NSAIDs can interact with anticoagulants and lithium, among many other medications.

To manage these challenges, clinicians should carefully consider a patient's medical history, comorbidities, and concomitant medications when they're selecting pain medications. Regular monitoring for adverse effects and adjusting treatment as needed is also crucial. By taking a comprehensive patient centered approach and staying vigilant for potential complications, clinicians can effectively manage pain while minimizing risks.

Now when I talk about monitoring, about staying vigilant so that you can look for complications, I am specifically addressing adverse effects, complications, so that patients are safe. But this does not mean urine drug screens, etc. This is specifically to keep patients safe from interactions from other drugs, and also in terms of their side effects.

Amanda Latimore: Jarratt, Arianna, both of you have provided some great insight on nonopioid therapies.

[00:11:54] Considerations in Opioid Analgesic Prescribing

Amanda Latimore: I'd like to turn to the hot topic of opioid analgesics and what providers should keep in mind when prescribing these medications. For an opioid tolerant patient, for example, what precautions should a provider consider? Additionally, what role could prescription drug monitoring programs play in making informed clinical decisions?

Jarratt Pytell: Amanda, like we talked about before, about starting opioid analgesics, it's important to start at the lowest effective dose for the shortest possible duration and beginning with immediate release opioids. This approach minimizes the risk of dependence and side effects. And I think it's also important to clearly instruct patients on the correct use of the medications, including the maximum daily amount, and really just setting some clear expectations and responsibilities that you as a clinician have and the patient has.

Sometimes this could be through a patient-provider agreement, like a real written agreement. I don't usually do that in my clinic, but some people can find those useful.

Obtaining baseline urine drug tests also can be helpful. Again, just focusing on safety to ensure that patients know what is in their body, to ensure that they are aware, if they are using drugs, what is in their drug supply, and then informed consent, right? Patients should know about the risks and potential benefits of opioid medications and really any medication.

I think in our future podcasts, we're going to dive a little bit deeper into patient agreements and urine drug tests. So, I'll leave that there for now. But, you know, I think for everyone co-prescribing naloxone and the brand name is Narcan, is a critical safety measure. We have to remember that our patients are living in the community, and so discussing safe storage and having the naloxone on hand in the event that the patient has an overdose, whether that's accidental or not, or even if somebody accesses the medications and has an overdose, it's an important thing to have on hand. I always describe it like wearing a seatbelt. Nobody gets in

a car thinking that they're gonna get in a car accident, but they have the seatbelt on just in case. So, Narcan is just like a seatbelt, something that everybody should have. Now for opioid tolerant patients, that's those patients who have been receiving opioids, extra care is needed when transitioning them to the extended-release or long-acting versions for chronic pain.

We want to maintain the effective pain relief, achieving those goals we discussed earlier while minimizing harms, including overdose risk. Just like any other condition, regularly reevaluating the patient, making sure that the pain management plan is working is essential to ensure that the benefits of continued opioid therapy outweigh the risks.

And to adjust the treatment as needed to achieve those functional goals without significant adverse effects.

[00:14:59] Prescription Drug Monitoring Programs (PDMPs) and Clinical Decision-making

Jarratt Pytell: We talked before about the prescription drug monitoring programs, or PDMPs, and how it can help inform clinical decisions. PDMPs track patients' controlled substance prescriptions, often helping healthcare providers identify potential issues such as obtaining opioids from multiple sources or concurrent prescriptions that can increase a patient's risk.

Honestly, sometimes patients don't even know the medications that they're receiving are dangerous to be combined with opioids, so it can be helpful to ensure patient safety. And PDMPs provide a comprehensive view of the patient's medication regimen, and that can aid in assessing issues in accessing medications, right? Are they able to access the prescriptions that we're sending to the pharmacies? Or are they having trouble? And as one way to help ensure that we're offering and getting them the best treatment possible.

Arianna Campbell: Yeah, I was just going to also add, Jarratt, that sometimes there can be some unintended consequences with PDMPs and kind of an over reliance on them.

I don't know if this has been your experience, but not everything shows up on a PDMP and, a PDMP doesn't mean that a patient's also taking

those medications. So, I think just making sure that when we're looking at a PDMP, we consider that a patient's experience may be different, what they're taking may be different than what shows up there. And it doesn't identify some of the things that we'd be most worried about from the street.

It also can get in the way of a therapeutic relationship with a patient if it's relied on too much or if it's used instead of an alignment with the patient in terms of trusting what they're talking to you about as well.

So, we've talked about this before, but not using that PDMP as a gotcha moment.

Jarratt Pytell: Yeah, I completely agree, Arianna. And, as you were talking, it reminded me of a recent viewpoint from Michele Buonora. She's at Yale, and she actually wrote a viewpoint in JGIM recently about how some of the clinical decision support tools that are these third-party companies essentially that use prescription drug monitoring program data to make risk. And such are not regulated, right? There's no oversight in how the data is used to make these predictions. I think we all should just keep an open mind about what it is that we're looking at with the PDMPs and making sure we're using it in a way to help patients and not in a punitive fashion.

In my personal practice, I'll just say that the PDMP does have a nice graph that shows the daily MME and can help me understand the long-term trajectory of patients better than my in-house EHR. So, used wisely, I think the PDMPs can help ensure safer prescription practices and could facilitate the identification of patients who might benefit from a little additional support or from an intervention from me around harmful use of multiple substances and have a conversation.

Amanda Latimore: Thank you both. That was really helpful detail, and, as you discussed, not everything shows up on the PDMP and you really have to bring in information from the clinical relationship. And one of the things that wouldn't show up is if someone is having problematic use, what that might look like.

[00:18:03] The DSM-5 on Opioid Use Disorder, Opioid Tolerance and Physiological Dependence

Amanda Latimore: And I know there are lots of misconceptions about what opioid use disorder is. So, let's think about this from a clinical perspective, thinking about the DSM-5 and the criteria for diagnosing opioid use disorder. Jarratt, can you elaborate on the DSM-5 criteria and clarify for us how tolerance and physiological dependence differs from opioid use disorder.

Jarratt Pytell, MD: Yeah, I'm sure Arianna could also do a great job because we discuss this all the time in clinical practice about how physiologic dependence is not the same thing as opioid use disorder, opioid addiction, right? And for many people in the general public and in health care, there's a misunderstanding between those two issues of dependence and opioid use disorder.

So, really any person who takes a, an opioid at a high enough dose for a long enough period of time will develop dependency. That's just that happens. That is if they suddenly stop using the opioid they will have physiologic symptoms of opioid withdrawal. However, opioid dependence does not imply addiction. The DSM-5 outlines 11 specific criteria for diagnosing opioid use disorder, which does include tolerance. But tolerance and dependence alone do not necessarily indicate opioid use disorder, and it's clearly stated that for patients receiving prescription opioids who have tolerance or dependence, that does not mean that they have an opioid use disorder, right?

Opioid use disorder is characterized by a pattern of opioid use that negatively impacts a patient in some domain of their life. Therefore, a patient who takes prescription opioids as prescribed and only exhibits tolerance and dependence would not meet diagnostic criteria for opioid use disorder.

Amanda Latimore: Thank you, Jarratt. That was a really important explanation for our listeners. I'm interested also in the mechanisms of action. What is the difference between full agonists and partial agonists when we're talking about pain relief? How do factors like routes of administration and abuse deterrent formulations influence the way opioids are prescribed Arianna.

Arianna Campbell: Well, I love talking about this. So, yes opioids work by binding to opioid receptors in the brain, but they're not all the same. Full agonists, like morphine, oxycodone, fully activate these receptors and

provide strong pain relief, but also higher risks for overdose and adverse outcomes.

Partial agonists, like buprenorphine, bind to the same receptors, but activate them less fully. This can offer effective pain relief, but with lower risk of hazardous use, dependence, and side effects. This includes a ceiling effect, and this is really important, a ceiling effect where additional doses don't increase euphoria or respiratory depression, often making these partial agonists a safer choice.

So, there are a variety of opioids available from fast acting, immediate release formulations ideal for acute pain to extended-release formulations that are designed for chronic pain management. And this allows us to tailor treatment plans, for individual patients. The route of administration, being oral, transdermal, or even intravenous, also varies.

This affects how quickly pain relief occurs and how convenient or effective the treatment is for the patient.

Now, there are these tamper deterrent formulations that have been developed to combat hazardous use of opioid medications. These formulations do make it harder to alter the medication, for instance, by crushing the pills to snort or inject them.

But while they can reduce the risk of unsafe use, they do not eliminate the possibility of addiction or overdose or even unsafe use.

Now, the medication still can be taken orally in high doses, or there can be other means of alteration. So, it's just important to note there are reports of hazardous use, even with these deterrents in place.

Amanda Latimore: And I think what we've reinforced throughout this podcast is that it's really important to take a look at formulations and the needs of the patient and not making determinations without taking that all into consideration.

[00:22:22] Patient-Centered Approaches to Pain Management for Special Populations

Amanda Latimore: So, thinking more about patient-centered care as we discussed in the previous podcast, I'd like to turn to thinking about how a provider might tailor a pain management plan.

Let's think about populations like pregnant women, older adults, those with comorbidities. What are the key factors to consider in terms of dosing and treatment approaches for these different populations? What are some of the potential adverse events and contraindications that providers should be aware of when supporting the needs of those in pain?

Jarratt Pytell, MD: Amanda, I feel like I'm starting to sound like a broken record because we'll say it again, right? A patient-centered and individualized approach to care is necessary, right?

Special populations such as older adults and individuals who are pregnant and people with cardiopulmonary conditions and pediatric patients all needed to be treated in a patient centered and individualized fashion. And they often require just a little extra care. As we talked about before, our goal is to always make sure that we're reducing harm and keeping patients safe.

And then for individuals who are pregnant with chronic pain and who do not have an opioid use disorder, generally we try to reduce opioids to the lowest effective dose to try to prevent and minimize Neonatal Opioid Withdrawal Syndrome, called NOWS.

And this is actually a good point. We've been focusing on language, right? We don't say Neonatal Abstinence Syndrome anymore. We call it Neonatal Opioid Withdrawal Syndrome, NOWS.

Now this is very different for individuals who are pregnant and have an opioid use disorder. The standard of care in that case is to continue the medication for opioid use disorder, whether that's buprenorphine or methadone, or start it if they are not already on it. And this is to reduce the harm from patients using illicit opioids or returning to illicit opioid use. These situations are difficult for patients because often they do not want their newborn to experience NOWS and they do not want to be on the medications.

However, the evidence is clear that staying on one of the medications for opioid use disorder is important to ensure the health and safety of the mother by preventing a return to drug use. For women who are postpartum and breastfeeding, they should also be monitored closely. It's a really hard time in their life.

But it's important to remember that they can still breastfeed. And we should encourage it for women who want to do it since very little of the methadone or buprenorphine is present in breast milk. Now, I am an adult medicine doctor, but I will say that for pediatric patients who require opioids, it's really important to involve pediatric pain specialists.

As we're all taught in medical school in our teaching you know, kids are not just little adults. And I'll just say that I know that the transdermal fentanyl is approved for children who are over two years old and extended-release or long-acting oxycodone is really only approved for those who are 11 years old.

So, this is really a time when pulling in a pediatric pain specialist is important to ensure we're keeping the pediatric patients safe.

So, for older adults, it's important to start low and go slow with opioid dosing, as they're more susceptible to respiratory depression and the adverse effects because they often have comorbid medical conditions.

We also need to be mindful of patients' renal and hepatic function because renal impairment or hepatic impairment can lead to the accumulation of opioids and their metabolites due to the decreased clearance which can increase their risk of having an adverse event due to the opioids.

Amanda Latimore: Arianna, did you have anything you wanted to add?

Arianna Campbell: Sure. I will add that patients with renal or hepatic impairment may need dose adjustments to prevent the accumulation of medications. Also, genetic and phenotypic variations can influence drug metabolism and response. So, patients with sleep disorders, psychiatric disorders, they also may be at higher risk for adverse events.

It's crucial to consider dosing and treatment approaches based on individual patient characteristics. There are conversion charts and dosing tables that can provide guidance, but their limitations must be acknowledged due to inter individual variability in response to pain medications.

Something else to be mindful of is medication errors, which can and do unfortunately occur, particularly during transitions of care or when using these conversion charts. They can be confusing.

[00:26:53] Essential Safety Strategies to Avoid Drug Interactions With Prescribed Opioids

Amanda Latimore: Thank you, Arianna and Jarratt spoke before about the biological mechanisms. And I just want to carry that forward and have you walk us through some of the interactions to be mindful of, like alcohol and other CNS depressants. What are some of the essential safety strategies for patients on opioids, including the role of naloxone, and how should pain management evolve once opioids are no longer in the picture after having conversations with the patient about their needs?

Arianna Campbell: That's the key is having this as a conversation, this is exactly how I frame it with patients is we need to talk about these things because patients can be placed into unsafe situations when this is not addressed. So, drug interactions are a significant concern in pain management.

Opioids can interact with other CNS depressants like benzodiazepines, alcohol, muscle relaxants, and this can lead to increased respiratory depression. Alcohol can also enhance the sedative effects of opioids and increase the risk of overdose. Pharmacokinetic interactions based on metabolic pathways such as cytochrome P450- this can affect opioid levels.

For example, the CYP 3A4 inhibitors, like ketoconazole, can increase opioid concentrations, while CYP3A4 inducers, like rifampin, can decrease opioid concentrations.

And then there's tramadol. Tramadol has serotonergic activity and may interact with other serotonergic agents, potentially leading to serotonin

syndrome. This is something I didn't even know about for quite some time, but tramadol can actually act pretty weird sometimes and in an unexpected way.

Opioids should also not be combined with MAOIs, so, monoamine oxidase inhibitors, due to the risk of serotonin syndrome and respiratory depression. If an opioid is necessary, it should be started at low dose and closely monitored for safety.

Interactions with antidiuretic hormone drugs such as Desmopressin can lead to hyponatremia and should be used cautiously. Methadone can prolong the QT interval at clinically relevant doses, necessitating EKG monitoring. This is especially important at doses more than 150 milligrams or with other risk factors.

I do want to mention, you don't need to get an EKG on everybody who is given a lower methadone dose, that is something that's pretty clear in the literature, but higher dose really should be monitored with EKGs.

Patient safety is paramount when prescribing opioids. Key strategies include, and we've talked about this a lot, educating patients and caregivers about the risks with opioids, including respiratory depression and overdose. And then, there's empowerment, instructing patients to take opioids with caution for a short period of time. Really making sure that patients know what can happen with longer use. This is really important. You want to co-prescribe ***or*** dispense naloxone. So, make it really easy for patients to access this.

I think everybody should know that when we co-prescribe, there's a very low rate of actually picking up that prescription. We have to do a better job of educating the patients, the family members, caregivers on the importance of naloxone, and how to use it, make it easy for them.

Also, regular monitorings to assess any high-risk issues, high risk behaviors, and using prescription drug monitoring programs really just to help inform treatment and to discuss with patients, not to use in a gotcha moment. We also want to provide clear dosing instructions and promote safe storage, proper disposal. It's important to discuss driving, work safety with these medications as well.

[00:30:29] Considerations Regarding Tapering or Discontinuing Prescribed Opioids

Amanda Latimore: Thank you. I really appreciate both you, Arianna and Jarratt, for your emphasis throughout these podcasts on patient-centered care and conversations. We've been talking about drug interactions and safety. Do you have any further insights you'd like to share with our listeners, Jarratt?

Jarratt Pytell, MD: Oh, yeah, I'd really be happy to discuss this more, and I think one thing that Arianna mentioned that I'd just like to highlight is methadone and QTc, often an EKG will be obtained for some reason and will be a high QT, and a clinician will say well, you need to get off of your methadone, even though that methadone is a lifesaving medication.

You know, it goes back to just assessing the harms, you know, making decisions about a patient and their medications needs to take really strong, careful consideration and involvement with a patient's pain management doctor, primary care or addiction medicine doctor.

I think there's always a discussion about when to get off and how to get off and discontinuing them. That's a discussion I feel like we've been having over the years since the 2016. CDC guidelines. And these are really big moments for patients, and we need to have careful consideration when we are recommending a discontinuation or reduction of opioids. And these are good opportunities to educate patients.

We need to make sure that patients understand opioid tolerance and dependence and the clinical entity of opioid-induced hyperalgesia, the sometimes increased pain that patients get when they're exposed to opioids over long periods of time, which is not universal, and some patients experience it and others don't.

Patients should also be aware what opioid withdrawal is and what it can feel like and how we're going to try and minimize it because the pain that patients can experience during opioid withdrawal could be related to their underlying condition and that increased pain from withdrawal does not necessarily mean it's going to be there forever, and we need to help patients through this process.

When we are discontinuing and tapering opioids, we really need to think about all of the different approaches, specifically some of the ones that Arianna mentioned at the top of our podcast, and using alternative medications to, again, help patients through this process.

In the case that we're stopping prescription opioids and full agonists because we are concerned about risky use or a patient, develops an opioid use disorder. This is not a moment to stop opioids and send them on their way, right? This is a time where we should be wrapping our arms around them and discussing the diagnosis and offering them immediate treatment with a medication for opioid use disorder, which is buprenorphine right now, that any clinician that can prescribe controlled substances is allowed to prescribe.

Now, often in the process of reducing opioids and tapering, patients might be reluctant to disclose that they're having trouble getting off of opioids, or they're very fearful the pain will not be adequately managed, and we need to make sure we have a strong therapeutic alliance and letting patients know that we're there to help them through this process. It's important that we reassure patients and have a contingency plan in place as they are reducing their opioids.

Some have suggested this whole other unique clinical entity that they've described as complex, persistent opioid dependence, which is characterized by individuals who cannot taper or are showing concerning symptoms during a taper, but not necessarily opioid use disorder. And, in those cases, buprenorphine could be a reasonable option to improve their pain while keeping them safe. And I think it's also important to know that patients often are using other substances in a way to cope with these stressful events and pain. For example, cannabis and alcohol, are often used to treat pain in a self-directed manner. And really goes back to, for the general practitioner, buprenorphine can be really effective for pain management and reducing the risks associated with the full agonists, and I believe is a reasonable harm reduction intervention that we should offer our patients struggling with opioid tapers and who have opioid use disorder.

Amanda Latimore: That's great. I think it's so important, this idea of keeping people safe while they're on opioids, but then also keeping people safe as they are going off of opioids and those harm reduction

strategies are so important to keep people alive and communication is key, isn't it?

[00:35:02] Building a Therapeutic Alliance with Patients

Amanda Latimore: How does the conversation between patients, prescribers, and other members of the healthcare team make a difference in pain management in terms of individuals sticking to the co-developed treatment plan? What is the patient's role? What is the provider's role? Jarratt, would you like to take this one?

Jarratt Pytell, MD: Sure. Communication is key. And this goes back to what we talked about before, about having a really strong therapeutic alliance and working as a team when caring for a patient.

It's essential for patients, the clinicians who are prescribing medications or recommending treatments, and really the entire healthcare team to have open and honest conversations about the goals of treatment, the expectations and the potential risks and benefits. This just ensures that we are all on the same page and working towards the same objectives. Building trust and respect with patients is key to enabling this, particularly in the current era where there's a lot of distrust and fear, particularly among patients with chronic pain who are receiving long-term opioids.

Involving the patient and their family in a holistic approach to managing their pain is critical. Engaging patients in active participation and nonpharmacologic therapies like physical therapy, cognitive behavioral therapy, and setting small, attainable personal goals are critical components of a successful pain management plan.

For example, patients can set goals related to their daily activities, right? Going for walks around the block or playing with their grandchildren or children, or doing work or having hobbies that they want to resume or maintain, right? Focusing on things that are important to their wellbeing.

And, you know, informed consent is always a key part of this process, right? The clinician who is prescribing these medicines should discuss what expected pain relief should be and the functional goals of treatment.

They need to discuss the potential risks and side effects of the medications, the alternatives to the opioids. And patients really need to have a lot of buy in on this treatment plan, right? This is a really big endeavor that doesn't get accomplished in a 20-minute visit and they need to be actively involved with us over time.

These conversations that happen again over time help patients understand what to expect and honestly empowers them to take a really active role in their care.

Amanda Latimore: Thanks, Jarratt. As a social epidemiologist, I can really appreciate the incorporation of the context of people's lives in their daily care. So, thank you for that.

Arianna, what does effective patient follow up look like from the health care provider end- should they be revisiting a patient's functional goals and if so, how often?

Arianna Campbell: Effective patient follow up is an important responsibility of healthcare professionals in pain management. Now, this involves regularly assessing how the patient is responding to treatment, both in terms of pain control and function. I think we've described that before, that function is a really important part of this.

It's really important to involve the patient in this, and personally, the use of motivational interviewing can be very helpful here too. Follow ups should also include watching for any signs of adverse effects, high risk behaviors, potential unsafe use of medications as well just to make sure that we're keeping patients safe and again making sure that they're involved in their treatment plan.

The frequency of follow up visits and reassessments for functional goals varies. So, it depends on the individual patient and complexity of their pain condition. So, as a general guideline, patients with acute pain or those starting a new treatment plan may require more frequent follow ups such as every one or two weeks.

With patients with stable chronic pain, follow up every 1 to 3 months may be appropriate. These timelines should be adjusted based on the patient's needs and their response to treatment. During these follow ups, healthcare professionals should revisit their functional goals, and again,

these are patient's functional goals, and assess their progress in meeting these goals.

This might involve asking about their activities of daily living, work, or school performance. social interactions, and overall quality of life. It's also important, I always ask my patients, what do you want to do? What are the things that are important to you? If the patient is not meeting their goals, or if their condition has changed, it could be necessary to adjust that treatment plan accordingly, and again, in a safe manner.

Amanda Latimore: Thank you, Arianna. I think we can all relate to the fact that life throws curveballs, and sometimes for patients with chronic pain, pain can spike unexpectedly. How do supplemental medications fit into our strategy for pain management

[00:39:55] When Life Throws your Chronic Pain Patient a Curve Ball

Amanda Latimore: While patients are navigating this challenge, it seems like patient-provider agreements or PPAs comes up a lot. It seems to be a thing, but I've heard things on both sides.

So, I'm wondering if you can speak on that and how to support patients in strengthening the treatment journey.

Jarratt Pytell, MD: We always just need to remember, right? Life throws curve balls and patients are experiencing life's normal ups and downs. And that's the same thing with experiencing new painful conditions and supplemental medications are a useful tool when there are sudden spikes in pain or breakthrough pain.

When these situations do happen, we typically reach for the short acting opioids that can provide rapid relief when the pain becomes severe or unexpected.

This happens frequently for patients with chronic pain as they experience painful events like dental work or surgical interventions. On the one hand, it's important to use these medications judiciously and under the guidance of a knowledgeable healthcare provider to minimize harms. But on the other, given their high exposure to opioids, sometimes they need higher doses to address the acute pain.

You brought up these patient provider agreements, and I think we're going to discuss them a little bit more in our next podcast. And my take is that they've sometimes been used in a punitive manner and to reduce access to medications. But just like the PDMPs, it's all about how they're used. And I'll put a link to an article written by Dr. Michael Incze, who talked about how to make patient provider agreements more patient-centered, because they sometimes used in the right way could be a useful tool for setting expectations and outlining responsibilities of both the patient and the clinicians who are prescribing medications.

At a minimum, they include details about the goals of the treatment, the patient responsibilities to using the medications as prescribed and storing them in a way that reduces harm. And really the clinician's commitment to helping patients and adjusting treatment as needed again to improve function while minimizing harms.

And the contingencies about what happens if a patient is struggling to use their medications as prescribed, or in the case of developing an opioid use disorder, what clinicians will do to support them at that time.

As with anything, we are trying to help patients and be aware of health literacy. These patient agreements really just need to be written with the idea of a lay audience in mind without medical jargon and of course having translations available. And while they can help ensure that both the patients and clinicians are committed to safe and effective pain management, they can also just help provide that clear roadmap for how we will navigate challenges in the future. And there is really limited evidence that they are actually useful in the treatment journey, but I will just say that in the most recent Guidelines, they still are in there as a recommended strategy. But really, these agreements just depend on many factors, such as the quality of patient-provider relationship and the therapeutic alliance and the engagement that both the clinician and patient have in context of chronic pain management.

Amanda Latimore,: Thank you, Jarratt, for sharing your insights on this.

[00:43:25] Concluding Thoughts about Pain Management in Patients with Chronic Pain

Amanda Latimore: So, we're wrapping up our discussion on pain management strategies and the complexities of opioid use. I'd like to give

you both an opportunity to share any key insights or advice that you would like to provide to our listeners. How can healthcare providers and patients work together to navigate this challenging landscape and ensure safe, effective, and Individualized or patient-centered care?

Jarratt Pytell, MD: Again, we should apply the same framework for chronic pain that we do for other chronic conditions. And you just hit the nail on the head, an individualized and patient-centered approach. It also is really important to have a strong patient provider relationship, built on open communication, trust and mutual respect, right? This therapeutic alliance means something in the context of chronic care.

I think it's also important for patients and clinicians to work together to develop an individualized treatment plan, right? Patients should be active participants in their care, and we should be seeking their input at all stages of care.

We want to prioritize their safety, their function, and their quality of life.

And I'll just end on that I think the most important thing is, patients should know that we're there for them for the long haul, and we will not abandon them if they're struggling, and the safe supportive relationship is absolutely necessary for that.

Arianna, what did I miss?

Arianna Campbell: That was great. And I do say often I say this all the time, every person has a story. Every person has their own unique experiences.

So, there's no one size fits all approach to pain management. What works for one person, one patient may not work for another. So, as healthcare providers, we need to be attuned to patients' unique circumstances. This includes their medical history, their comorbidities, psychosocial factors, and again, what are their challenges?

So, remember, the goal of pain management should be to improve a patient's quality of life and really help them achieve their functional goals. So, it's really important to stay up to date on the latest evidence-based

practices that can help you as a healthcare provider make a meaningful difference in the lives of those who are struggling with chronic pain.

Amanda Latimore: Thank you both. As always, you've been amazing, Jarratt, Arianna.

So, in our first podcast we talked about assessing pain. This podcast we've talked about treatment plans, and in the third and final podcast we're going to delve deeper into the management aspects of opioid and nonopioid pain management. So, we'll see you soon.