

# SCOPE of PAIN: Safer/Effective Opioid Prescribing Education

## Podcast - October 1, 2023

### Episode 2

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**Ilana Hardesty:** Thanks for listening to Boston University Chobanian & Avedisian School of Medicine’s Safer and Competent Opioid Prescribing Education: SCOPE of Pain Podcast Series. I’m Ilana Hardesty.

This series has eight episodes. If at any point you want more information on receiving credit for this course, please visit our website, [scopeofpain.org](http://scopeofpain.org). There are also resources that accompany this series. All of it can be found at [scopeofpain.org](http://scopeofpain.org).

In this episode, we'll continue our conversation with Dr. Daniel Alford and Dr. Erica Bial about Michelle Jones, the case study patient we met in Episode One. We'll hear again from Don, a real patient with chronic severe pain on long term opioid therapy. And we'll talk to Kristin Wason, a primary care nurse at Boston Medical Center and assistant professor of medicine at Boston University.

It's now eight years later and Michelle presents for an initial appointment with a new primary care provider. She has foot and hip pain and is asking for a new prescription for her opioid pain medications today. Her past medical history includes type two diabetes with painful diabetic

**Case Study**  
Michelle Jones  
54 yo female

<b>Current Medications</b>	<b>Current Pain Medications</b>
Metformin, Empagliflozin, Lisinopril, Atorvastatin	<b>Oxycodone</b> 10 mg 4x/day (60 MME*) <b>Gabapentin</b> 300 mg 3x/day
<b>Previous Pain Medications</b>	
<b>NSAIDs</b> (ibuprofen, naproxen)	<i>Diabetic nephropathy and GI upset</i>
<b>Acetaminophen</b>	<i>Inadequate pain relief</i>
<b>Tricyclic antidepressants (TCA)</b> (amitriptyline)	<i>Inadequate pain relief and dry mouth</i>
<b>Serotonin-norepinephrine reuptake inhibitor (SNRI)</b> (venlafaxine)	<i>Unable to tolerate due to nausea and dizziness</i>
<b>Tramadol</b>	<i>Inadequate pain relief</i>
<b>Acetaminophen with codeine</b>	<i>Inadequate pain relief and nausea</i>

\*Morphine Milligram Equivalents

neuropathy and chronic right hip pain due to arthritis from her car accident 18 years ago. She has hypertension, chronic kidney disease and high cholesterol, and is obese. Michelle is currently on metformin, empagliflozin, lisinopril and atorvastatin. She is also taking gabapentin and short acting oxycodone: ten milligrams four times a day, which is 60 morphine milligram equivalents or MMEs. She had previously tried NSAIDs, acetaminophen, TCAs, SNRIs, tramadol and acetaminophen with codeine. None of these offered adequate pain relief and many caused intolerable side effects.

Michelle has a part time job as a paralegal. She's married with no children. She doesn't smoke and only drinks wine occasionally. She does not use drugs, including cannabis. Her father is being treated for lung cancer. Her mother died from complications of alcohol-associated cirrhosis. She's been rationing her oxycodone prior to this visit to avoid running out. She took her last pill this morning. She gets the best pain relief when she takes her ten-milligram tablet four times per day. Her current pain is more severe because she's been spacing out her pills. She gives this new PCP her old medical records. Michelle reports mild to moderate right hip pain that's exacerbated by activity and relieved with rest. She has severe bilateral foot pain with burning numbness and tingling, which is worse at night. On a ten-point scale, Michelle rates her pain as a 20.

What does it mean when a patient reports their pain off the scale?

**Dr. Daniel Alford:** Yeah. So when I hear that, I think of mistrust. Patients may assume that you don't believe the severity of their pain complaint, and it's demonstrated exactly like what happened with this patient; that is, an exaggeration of the pain score that is over the scale. They may also exaggerate their functional limitations. You may ask, "What are you able to do on this treatment?" And they say, "I can't do anything. My pain is so bad". And so I guess the follow up question is: so how do you build trust? What do you do about it? And I would say after you've done a complete and thorough pain history and you've done your focused exam and any appropriate diagnostic testing, I think one, you need to show empathy for the patient's experience. You could say something like, "It must be difficult to enjoy life with such severe pain." And then to I would say we should validate that you believe their pain and suffering is real by saying something like, "I believe you and I want to help." So I think those two things are critical. That is, be empathic and validate that you believe the patient's pain and suffering is real. I would say validating every single patient there is 0% risk. Why? Because just because you believe the severity of the patient's pain complaint does not mean that opioids are indicated. That is what we need to decide based on using a risk benefit profile, which we're going to be talking a lot more about.

**Ilana Hardesty:** Let's talk to our patient, Don. Don, what's been your experience in interacting with health care providers while you've been on opioids for chronic pain? Have you experienced that mistrust either on your part or the part of the clinicians? And what's that mistrust based on?

**Don (Patient):** You are sort of walking through this sort of gauntlet of suspicion, and that's not a comfortable thing. It has kind of corrupted the relationship between patient and physician. It's a weird kind of: if you don't make a big deal out of it, then what's the big deal? He's fine. He doesn't really need it. If you do make a big deal out of it, well, that's drug-seeking behavior, that's very suspicious. And sort of the more you push, the greater the resistance. The most frustrating thing is this kind of not being able to really explain. It's like the more you explain, the more trouble you're in, the worse you look. It sounds like you're trying to justify yourself. It sounds like you're nervous. It sounds like you feel guilty, which a lot of people do around this.

**Ilana Hardesty:** Dr. Alford, you mentioned believing a patient's pain complaints, but you still need to be able to assess that patient's chronic pain, right? How do you do that accurately to find the best treatment approach?

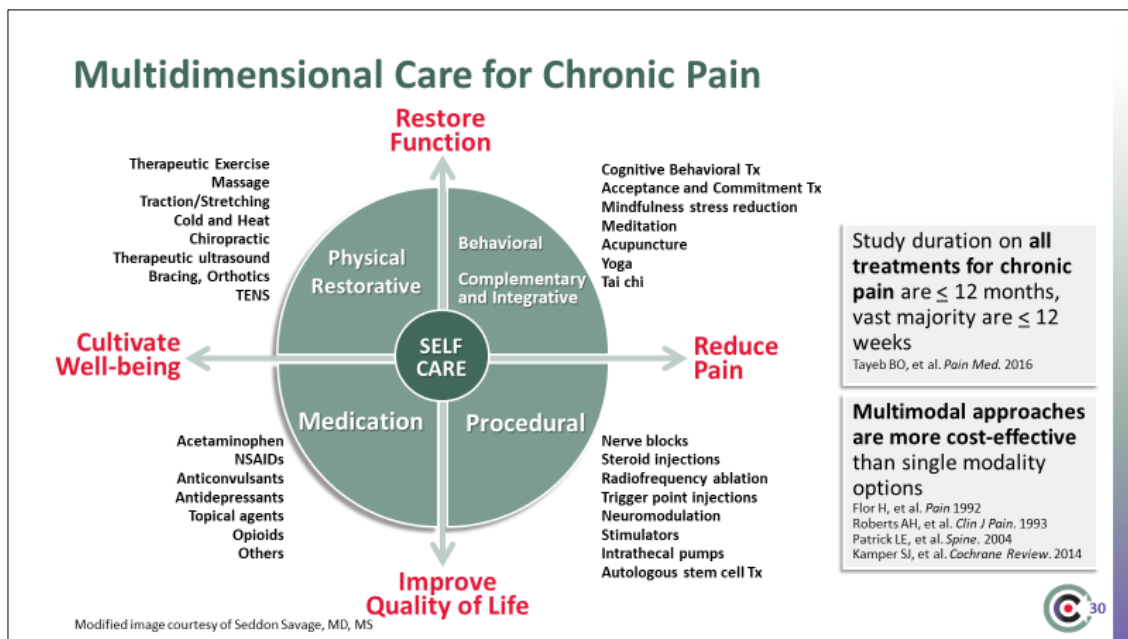
**Dr. Daniel Alford:** Yeah, it is complicated. And I know you heard my colleague Erica talk about uni-dimensional scales for acute pain, but I think we'd all agree, those are inadequate for chronic pain assessment. And I think we really want something that's more multidimensional. And there are absolutely validated questionnaires and surveys out there, including the McGill Pain Questionnaire, the Graded Chronic Pain Scale, and the Brief Pain Inventory. And if you can use these in your clinical practice, that's great. But in my primary care practice, they're too long, they're impractical. The good news is there is a brief, multidimensional scale called the Peg Scale – P-E-G, which stands for **Pain, Enjoyment, and General** Activity. And this has been validated in primary care settings. What are the questions it asks? Number one, what number best describes your pain on average in the past week, 0 to 10. Two, what number best describes how during the past week pain has interfered with your enjoyment of life? Three, how about interfering with your general activity? Doesn't interfere is zero; completely interferes with a ten. So we're asking about pain; we're asking about quality of life, which is enjoyment of life; and we're asking about function or general activity.

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**Ilana Hardesty:** When asked the PEG questions, Michelle reported that over the past week her pain on average was a ten, and her pain's interference with enjoyment of life and general activity were both nine. Michelle's physical shows no acute distress and normal vitals, with a BMI of 32. She has normal cardiopulmonary function and a normal musculoskeletal exam, except for her right hip, which has decreased range of motion and pain on internal rotation. Her neurologic exam is consistent with her diabetic neuropathy.

Okay, now that you've assessed Michelle's chronic pain, what are the next steps? How do you come up with a treatment plan?

**Dr. Erica Bial:** It's a great question and it's a really challenging one. So now that Dan has talked about multidimensional assessment of chronic pain, we should also recognize that,



similar to assessment of chronic pain, we need a multidimensional care plan when we're dealing with chronic pain. There's a broad range of goals that we might want to cultivate. So well-being for the patient, functional restoration, pain reduction, improvements in quality of life all have an impact globally on the patient's pain experience and foster better level of function. So, physical restorative approaches are certainly one broad category: things like exercise, massage, traction, heat and cold, ultrasound or orthotics, a TENS unit. Particularly, these are modalities that are useful when there is a musculoskeletal origin of the pain.

We could think about procedural approaches for pain, things that I do for a living. So things like nerve block, steroid injections, radiofrequency ablation, spinal cord stimulation and neuromodulation, as well as a number of newer technologies like autologous stem cell transfers.

Of course, medications are a part of this overall treatment puzzle: things like acetaminophen and the NSAIDs, anticonvulsants, antidepressants – we shouldn't forget about when they're appropriate and kind of fit the pain picture. Use of topical agents like Lidocaine, as well as opioids.

And finally, things like cognitive behavioral therapies, acceptance and commitment therapies, mindfulness, and meditation. A lot of patients imagine that these things don't have an important role, but studies show they're actually as effective as the stuff that I do for a living when we look globally at patient function.

It's important to remember that study duration on all treatments for chronic pain are less than 12 months and the vast majority are less than 12 weeks, barely even meeting the criteria for chronic. It's also often surprising to people that multimodal approaches are more

cost-effective than single modality options, even though all of these things sound like an awful lot of work.

**Dr. Daniel Alford:** So, Erica, hearing you talk about some of the behavioral approaches, I'm reminded of a patient experience that really has changed my practice. And that patient experience was I sent one of my patients to a psychologist, someone who specialized in cognitive behavioral therapy, and he came back to me and he was furious. And I said, "What's wrong?" He said, "That doctor didn't even examine me." And I said, "Oh, my goodness, if the psychologist examined you, you probably could have sued him!" So it really taught me a lesson: that is, to send patients in a way that they understand why I'm sending them there and what to expect. I think oftentimes patients who are on opioids sometimes feel like they just need to do these things in order to continue getting the prescription that they want, as opposed to understanding that these modalities have evidence supporting them and they can help them get better. So I think that's important.

So, Kristin, I mean, as a nurse, I'm sure you had these conversations all the time with patients. What's been your experience and do you have any lessons learned about how to have those conversations?

**Kristin Wason:** Yeah, Yeah. And I'll say as a nurse, I definitely have had a lot of those conversations and typically they actually go really well, especially because as a nurse, you're a non-prescriber, but there's a lot you can do to teach people about their health condition and about ways to improve their quality of life and functioning. And so pain plays right into that. Generally, when I'm talking to patients about their pain, what we'll do is kind of start by talking about, "What do you know about your diagnosis?" Like, what do you know about your osteoarthritis or what do you know about this other pain syndrome that you have? And then we'll discuss ways in which that is affecting their quality of life and really try to get down to like the underlying cause of the pain than trying to treat that underlying cause. And a lot of times patients might say things like, "Oh yeah, someone mentioned physical therapy to me once; I did it and I didn't really like it and I never went back." And I'll ask if you do the exercises at home, and they're like, "Yeah, I do them sometimes." And so really, like you can tell they're not getting the full benefit of that. So talking about like, let's revisit the physical therapy, you know, let's strengthen the muscles to improve sort of your joint health and functioning and making sure you're not falling or in as much pain and trying to get them to go to even just like a couple physical therapy sessions. It's like a big win on our part.

**Dr. Daniel Alford:** So, Erica, you're pain specialist; I'm in primary care. I'm going to ask you a question that I already know the answer to, and that is, should I be sending you all my patients with chronic pain?

**Dr. Erica Bial:** No. As much as I would be flattered to receive that number of your excellent referrals, that, of course, would be overwhelming. And so it's important to recognize when you really do need help from a pain specialist. Just the same way that you don't need a cardiologist for every patient with a heart, you want to refer to a pain specialist any time that you need more help. So if you're unsure of the pain diagnosis, if you're unsure of what else we might be able to offer, or if you just need a fresh pair of eyes or you want a second opinion for an individual patient. But I do think it's critically important to know what services

that your pain specialist offers. And kind of much to your point before about having a patient come back to you in the primary care setting and feel very frustrated that the psychologist didn't even examine them; as the receiving specialist, I can also say that setting patient expectations is extraordinarily helpful because sometimes the patient thinks that I'm just a stumbling block to their continuing their opioid and they don't realize that I'm going to take a comprehensive look. Similarly, knowing what the question is from a clinician-to-clinician communication perspective is really, really helpful. So if I know how I can help and what the specific questions are in the quality of the referral, that's helpful. I do think it's extremely important also that you know what services the pain specialist offers. So if you send me a patient for an approach or modality that I don't do, it's frustrating for the patient, it's frustrating for me, and I'm sure it's frustrating for you too, as the referring provider. Other times that I think is important to address is when there isn't a pain specialist available. Don't forget that you might be able to get a second opinion from one of your colleagues. I do this in my office too, where I just need a fresh pair of eyes. It's also finally important to remain up to date with local or state requirements. There are some situations that might require, if available, a pain specialist referral.

**Ilana Hardesty:** You talked about multimodal care earlier and touched on the broad range of both nonpharmacologic and pharmacologic treatments. Let's drill down on the latter and start with non-opioids.

**Dr. Erica Bial:** This is a really important place to start because very often patients imagine when we talk about pain medicine that opioids are the first or only option. They think that that's a euphemism for opioids when in fact they're not even first-line. So let's talk first about the nonsteroidal anti-inflammatory medications. So of course, we had the nonselective and the selective agents. And particularly important to remember, we have the COX-2 selective agent celecoxib, which can be useful in patients who have GI sensitivity to the NSAIDs. The nice thing about the NSAIDs is that in addition to being analgesic and antipyretic, they are in and of themselves anti-inflammatory. So when you think in your formulation about the origin of the patient's pain, and it has an inflammatory component. It's logical to reach for these.

Sometimes we also reach for acetaminophen useful because it's analgesic and it's antipyretic, but no doubt, less effective than the full dose NSAIDs in relieving chronic pain that has an inflammatory component, but they have fewer adverse side effects in most patients.

So there are some general considerations here. Ceiling effect is a big deal because I definitely see in my practice patients who are taking either very large doses or too-frequent doses of the NSAIDs or of acetaminophen without realizing their toxicity. And at that point in our risk-to-benefit model, there's more risk than there is any benefit because of that ceiling analgesic effect. But there's no known analgesic tolerance and they can be synergistic. There's an additive role for NSAID plus acetaminophen. Some patients might respond better to one NSAID than the other, and we need to think about side effects, including the GI effects, renal effects, cardiovascular risks, especially in high dose NSAIDs.

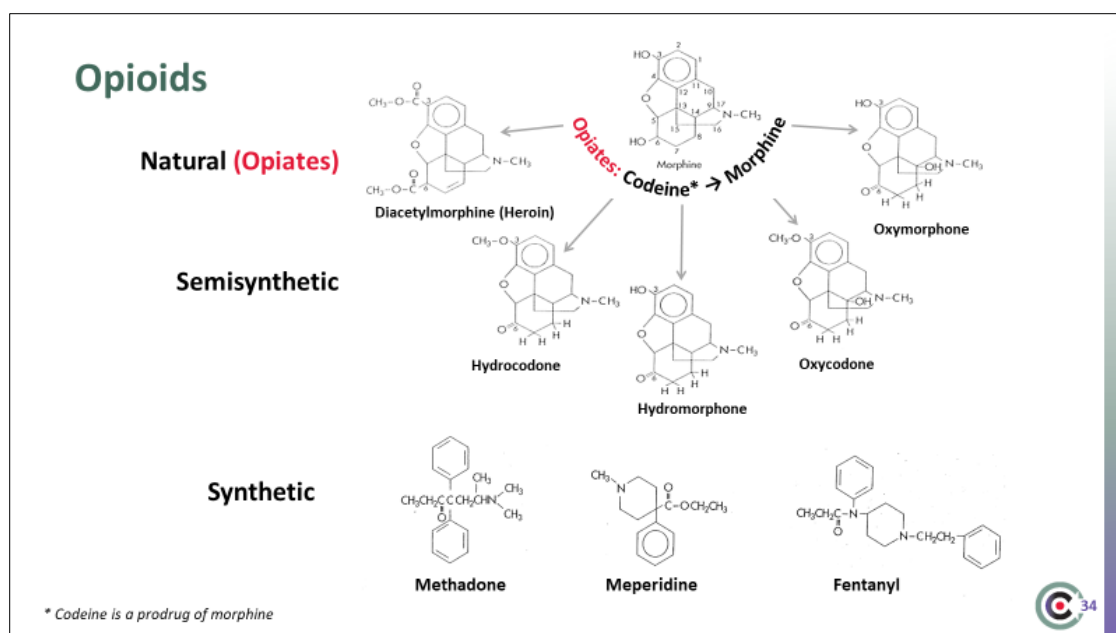
Also, I think it's helpful to not forget about the option, especially when patients have musculoskeletal complaints, of topical diclofenac, avoiding many of the systemic potential absorption and effects.

Also in the non-opioid pharmacotherapy category would be the analgesics with the primary indication other than pain. And these can be surprising to people that they are in fact analgesic. These are really the mainstays of treatment for neuropathic pain syndromes. So things like the antidepressants, namely the tricyclic antidepressants and the SNRIs. I do think it's worthy of just a quick mention: the SSRI don't really seem to have that same analgesic property. The anticonvulsants, typically the gabapentinoids and carbamazepine, the anti-spasmodics and the muscle relaxants. I think they have pretty limited utility, but certainly there is some. And don't forget about the local anesthetics; so things like topical lidocaine.

Just a quick caution though. There is misuse and addiction potential that's been identified with a number of these agents, particularly the gabapentinoids – so gabapentin; pregabalin – and some of the muscle relaxants, particularly carisoprodol. And this is because it metabolizes into a barbiturate-like drug.

So now that we've been talking about the non-opioids, Dan, do you want to talk a little bit more about the opioids?

**Dr. Daniel Alford:** I'd be happy to. And there are lots of opioids to talk about and I think of them in the following way. I start with the naturally-occurring opiates, which include codeine and morphine, which come from opium, which comes from the poppy plant. You can then take these opiates and alter them in the lab and create semi-synthetic opioids, that include something like diacetyl morphine which is heroin, or hydrocodone, or hydromorphone, and oxycodone. It's important to realize that they came from morphine





and codeine, because they can metabolize back to morphine and codeine or an opiate, and turn your urine positive for an opiate.

But that's different than the synthetic opioids like methadone, meperidine, and fentanyl. They never came from morphine or codeine or an opiate, and they will never turn your urine positive for an opiate. And you can test for all of these molecules separately in your urine drug testing.

So what do opioids do in terms of treating pain? They do a lot of important things, such as: they turn on the descending inhibitory pathway in the Periaqueductal Gray, which is a norepinephrine-serotonin system; it can be incredibly powerful. They also prevent the ascending transmission of the pain signal. They can inhibit the terminals of the C-fibers or pain fibers in the dorsal horn of the spinal cord. And they can also inhibit the activation of the pain receptors or peripheral nociceptors. We also know, and I think we've probably all have this experience, that there is variability and how one patient responds versus another and that not all patients respond to the same opioid in the same way. And the question is, why not? Well, we now know that there are thousands of polymorphisms in the human mu opioid receptor gene. So all of us probably have a different mu opioid receptor system, and we may respond better to one opioid than another. And two, there are single nucleotide polymorphisms or SNIPs that can affect how opioids are metabolized, how they're transported across the blood brain barrier, and their activity at receptors and ion channels.

And then finally, opioids can activate the reward pathway, which is in the midbrain, which is a dopaminergic system, which is highly rewarding and reinforcing. And this is likely the cause of a lot of opioid misuse; that is, people trying to seek that reward. So we need to be aware of that as well.

Now, talking about opioids, there are two other things we should talk about right now, and that is tolerance and physical dependence. Both tolerance and physical dependence are physiologic adaptations to being chronically exposed to opioids. Tolerance means you need an increased dose over time to achieve a specific effect. Well, tolerance develops readily for sedation and respiratory depression. That's good. Less so for constipation. And in terms of developing tolerance to the analgesic properties of opioids, it's a little unclear. It seems that some patients may and some may not.

Now, physical dependence, that's signs and symptoms of withdrawal when you abruptly stop the opioid or you decrease the dose too fast, or you give the patient – or the patient's exposed to – an opioid antagonist like naloxone or naltrexone.

[Music]

**Ilana Hardesty**: Thank you, Dr. Alford and Dr. Bial. And thanks to Kristin Wason and our patient, Don.

We've learned about treatment options for chronic pain and discussed different options including non-pharmacotherapy, non-opioid pharmacotherapy, and opioids. But do opioids



really work for chronic pain? Is there any evidence that opioids are effective for chronic pain? Join us for episode three.

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I'm Ilana Hardesty. Thanks for listening.