RESTORE

OPTIMIZING SAFE OPIOID PRESCRIBING:

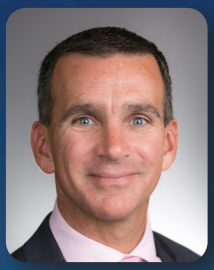
A REMS-Compliant Approach to Pain Management

NOVEMBER 17, 2025

DINNER - 6:00 PM - 6:30 PM
CME SUMMIT - 6:30 PM - 8:00 PM

VENUE: MARRIOTT MARINA DEL REY
4100 Admiralty Way
Marina del Rey, California 90292

FACULTY



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LIVE EVENT REGISTRATION

To preregister for the live event, please visit
https://www.medlearninggroup.com/cme-programming/opiod-summit-la-registration
or call (207) 847-0613.

1.5
CME/CNE/
ACPE/AAPA
Credits

FEATURES

- Interactive, case-based learning environment
- Downloadable videos
- Online personalized quality-improvement poster-generation portal

MED LEARNING GROUP

This activity is provided by Med Learning Group.
This activity is supported by an independent educational grant from the Opioid Analgesic REMS Program Companies.
Please see http://www.opioidanalgesicrems.com/Resources/Docs/List_of_RPC_Companies.pdf for a listing of REMS Program Companies.
This activity is intended to be fully compliant with the Opioid Analgesic REMS education requirements issued by the U.S. Food and Drug Administration (FDA).

November 17, 2025
Dinner 6:00 PM - 6:30 PM / CME summit 6:30 PM - 8:00 PM

Marriott Marina del Rey
4100 Admiralty Way
Marina del Rey, California 90292

Optimizing Safe Opioid Prescribing: A REMS-Compliant Approach to Pain Management

FACULTY PRESENTERS

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PROGRAM OVERVIEW:
This REMS-compliant program is designed to enhance clinician confidence and competence in the safe and effective management of pain. Through evidence-based instruction and expert-led discussion, participants will gain practical strategies for conducting comprehensive pain assessments, developing guideline-driven treatment plans, and integrating nonpharmacologic and non-opioid pharmacologic therapies into patient care. The curriculum also addresses best practices in opioid prescribing and patient counseling, appropriate specialist referrals, and current protocols for recognizing and managing opioid use disorder.

TARGET AUDIENCE
Consistent with the goals of the FDA REMS blueprint, this REMS-compliant continuing education program is designed to meet the educational needs of a broad range of healthcare professionals, nationally, including medication prescribers and care team members; physicians (including primary care, internal medicine, emergency medicine, surgery, pain medicine, addiction medicine), advanced practice nurses (eg, APRN, CNS, NP, DNP, CRNA, CNMW, other), physician assistants, dentists, podiatrists, nurses, pharmacists, optometrists, and psychologists.

LEARNING OBJECTIVES
Upon the completion of this program, attendees should be able to:

- Articulate the foundational elements of pain management, distinguishing between definitions, classifications, and mechanisms of pain
- Conduct comprehensive pain assessments that evaluate pain severity and identify patient-specific risk factors for nonmedical opioid use and opioid use disorder
- Apply effective strategies for managing acute and chronic pain that prioritize the use of nonpharmacologic and non-opioid pharmacologic modalities
- Develop guideline-driven strategies for initiating, titrating, and discontinuing opioid analgesics, while emphasizing individualized treatment plans, secure storage protocols, and counseling approaches for patients and caregivers concerning naloxone use during opioid overdose
- Recognize clinical indicators for specialist referral and facilitate timely consultations with pain management and addiction medicine
- Outline the core principles of addiction medicine and apply evidence-based strategies for recognizing and managing opioid use disorder

JOINT ACCREDITATION STATEMENT

In support of improving patient care, Med Learning Group is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

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NURSES (ANCC) CREDIT DESIGNATION

Med Learning Group designates this activity for a maximum of 1.5 ANCC contact hours.

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Med Learning Group designates this activity for a maximum of up to 1.5 knowledge-based CPE contact hours. NOTE to Pharmacists: The only official Statement of Credit is the one you pull from CPE Monitor. You must request your certificate within 45 days of your participation in the activity to meet the deadline for submission to CPE Monitor. Credits are generally reported during the first week of each month for those who claimed during the month prior.

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DISCLOSURE OF RELEVANT FINANCIAL RELATIONSHIPS

Faculty Member	Disclosures
Chuck Vega, MD	Consulting fees: Boehringer Ingelheim and Exact Sciences
Ariana M. Nelson, MD	Nothing to disclose.
Joseph O. Merrill, MD	Nothing to disclose.

All relevant financial relationships have been mitigated.

Content Review

The content of this activity was independently peer reviewed by a physician and nurse reviewer.

Individuals in Control of the Content of the Activity

The individuals in control of the content of this activity have reported the following financial relationships or relationships to products or devices they have with ineligible companies related to the content of this CE activity:

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Shannon Mutch MS, RN, OCN, has nothing to disclose.

M. Susan Burke, MD, has nothing to disclose.

A medical reviewer from CME Peer Review LLC, has nothing to disclose.

Lauren Scott, MS, Medical Director for Med Learning Group, has nothing to disclose.

Lauren Welch, MA, VP, Accreditation and Outcomes for Med Learning Group, has nothing to disclose.

Melissa Johnson, Program Director for Med Learning Group, has nothing to disclose.

Millena Papastavrou, Associate Program Manager for Med Learning Group, has nothing to disclose.

Brianna Hanson, Accreditation and Outcomes Coordinator, has nothing to disclose.

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Med Learning Group requires that faculty participating in any CE activity disclose to the audience when discussing any unlabeled or investigational use of any commercial product or device not yet approved for use in the United States. During this lecture, the faculty may mention the use of medications for both FDA-approved and non-approved indications.

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There are no fees for participating and receiving CE credit for this activity. In order to obtain your certificate for the mentioned accreditation, participants need to successfully complete the associated pre/post activities and evaluation. Your certificate will be provided as a downloadable file.

DISCLAIMER

Med Learning Group makes every effort to develop CE activities that are science based. This activity is designed for educational purposes. Participants have a responsibility to use this information to enhance their professional development in an effort to improve patient outcomes. Conclusions drawn by the participants should be derived from careful consideration of all available scientific information. The participant should use his/her clinical judgment, knowledge, experience, and diagnostic decision-making expertise before applying any information, whether provided here or by others, for any professional use.

For CE questions, please contact Med Learning Group at info@medlearninggroup.com

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	PROGRAM AGENDA
10 min.	**Introduction & Pre-Test**

20 min.	**Didactic Content Shared by a Faculty**
	Fundamental Concepts of Pain Management
	• Principles of Pain Management:
	  ○ The art of multimodal therapy
	  ○ When to refer to a pain specialist
	• Screening Tools for Opioid Use Disorder (OUD)
	  ○ PDMPs
	  ○ Urine toxicology
	  ○ Risk assessment tools
	  ○ Red flags
	  ○ When to refer to an addiction specialist

20 min.	**Fundamentals of Addiction Medicine**
	• Management of OUD
	  ○ OUD neurobiology: physical dependance and addiction
	  ○ DSM-V criteria for OUD
	  ○ Minimizing stigmatizing language
	• Treatment options for OUD:
	  ○ ASAM levels of care
	  ○ MOUDs: Opioid withdrawal
	  ○ Psychosocial therapy
	  ○ Pain management in patients with OUD
	• Management of opioid overdose
	  ○ ASAM recommendations: Naloxone and opioid overdose
	  ○ Why everyone should carry naloxone
	  ○ Counseling on safe storage of opioids

25 min.	**Day-in-the-Life Case Study Discussion** (Video cases below to be discussed throughout the program) • Sherry's Story: A 45-year-old woman with opioid use disorder; long-term success after inpatient and outpatient treatment • Bill's Story: A 62-year-old man with debilitating chronic backpain and substance use disorder
15 min.	**Conclusion, Q&A, & Post-Test**

Live Summit Series: A Day-in-the-Life

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LS1

Introductions

Charles Vega, MD, FAAFP

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Slide 2

LS1 Note to faculty: 10 min. allotted for intro and pre-test questions
Lauren Scott, 2025-11-14T14:59:29.434

Disclosures

- **Dr Vega:**
  - Consulting Fees: GSK, Boehringer Ingelheim, Exact Sciences
- **Dr Nelson:** Has nothing to disclose.
- **Dr Merrill:** Has nothing to disclose.
- During this lecture, the use of medications for both US Food and Drug Administration (FDA)-approved and non-FDA-approved indications may be discussed
- All relevant financial relationships have been mitigated

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Learning Objectives

1. Conduct comprehensive pain assessments that evaluate pain severity and identify patient-specific risk factors for nonmedical opioid use and opioid use disorder
2. Apply effective strategies for managing acute and chronic pain that prioritize the use of nonpharmacologic and nonopioid pharmacologic modalities
3. Develop guideline-driven strategies for initiating, titrating, and discontinuing opioid analgesics, while emphasizing individualized treatment plans, secure storage protocols, and counseling approaches for patients and caregivers concerning naloxone use during opioid overdose
4. Recognize clinical indicators for specialist referral and facilitate timely consultations with pain management and addiction medicine
5. Outline the core principles of addiction medicine and apply evidence-based strategies for recognizing and managing opioid use disorder

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Pre-test Questions

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Question 1

Which assessment tool is most useful for evaluating the impact of pain severity on patient function and quality of life?

A. Visual Analog Scale (VAS)
B. Brief Pain Inventory (BPI)
C. Wong-Baker scale

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Question 2

Krishna is a 62-year-old woman with a 4-year history of advanced osteoarthritis in her low back. Her pain is currently managed on hydrocodone bitartrate extended release (50 MME/day). She reports that her pain has significantly increased during the past 2 weeks, hampering activities of daily living, and is requesting to increase her hydrocodone dosage. Which of the following treatment options should be recommended first, while awaiting clinical and radiologic reevaluation?

A. Prescribe topical diclofenac or lidocaine with physical therapy
B. Rotate to another opioid based on her tolerance to hydrocodone
C. Add a fentanyl patch for breakthrough pain
D. Increase the dose of hydrocodone and monitor closely

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Question 3

Darlene is a 63-year-old woman with an 18-month history of painful diabetic peripheral neuropathy that has been reasonably well-controlled with pregabalin 300 mg/day, in addition to diet and exercise. Over the past month, however, she has developed worsening pain in her feet while walking. Darlene also reports long-standing anxiety. She admits to using diazepam a few times each week, which she continues to obtain from her sister despite being counseled about safer alternatives. Because of her increased anxiety, she admits she intends to increase her diazepam. Based on Darlene's current presentation, is she a candidate for referral to a pain management specialist for multidisciplinary care?

A. No, referral should be deferred until she has exhausted all other therapies or combinations.
B. No, she should be referred to a mental health provider instead.
C. No, since what she has been doing has been working up until now you should increase her current dosage of pregabalin.
D. Yes, referral is appropriate for both pain management and SUD consultations

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Question 4

Which term best reflects non-stigmatizing, person-first language for individuals receiving care for opioid use disorder (OUD)?

A. Opioid addiction
B. Opioid use disorder
C. Non-compliant
D. Clean urine drug screen

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LS1

A Day-in-the-Life: Meet Bill and Sherry

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Slide 10

LS1 Note to faculty:
Fundamental Concepts of Pain Management– 25 min [Nelson], includes Dr Vega intro of patient videos starting here
-Didactic sides – 8-10 min
-DITL video clips ~10 min
-Polling – 3 min
-Brief faculty commentary – 2-4 min
Lauren Scott, 2025-11-14T15:02:30.113

Now, let's watch a video introducing us to our patients, Bill and Sherry

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DITL clip: Bill intro

Read aloud time: 2 min

PLACEHOLDER SLIDE
Will be deleted

Bill Teller: (02:47)

My name is Bill, and I live in Des Moines, Iowa. And I have suffered from chronic pain now for about 12 years. And, um, I have had struggles with addictions in the past, but managed to maintain while getting pain meds from my physician. However, had, um, some troubles, uh, with alcohol, and it was due to, um, I was starting to get to the point where I was disabled and couldn't do my job anymore. I lost my pain meds due to the alcohol issues. Um, so I dealt with it for four years without pain medications, and it worsening and worsening it. Yeah, it was horrible.

Bill Teller (05:20):

I was a marijuana user back in college. No big deal, no issue with that. Heck, we all smoke, but, um, later on, one gets exposure to other drugs by those who sell, you know, the marijuana. So I, I was exposed to other things, cocaine, which by the way, I despise, um, methamphetamine that I didn't despise. Meth was probably my biggest problem ever up until pain meds. I ended up in treatment a couple times in the late nineties. Treatment doesn't do any good unless you're ready for it. You have to get it up here. And treatment is not necessarily gonna change your mind. Um, you need to get it in your head that you're gonna fix yourself, get, get it taken care of. Um, treatment did gimme time. I did learn some great things in there about, you know, how to manage when, you know the urges would hit. But, you know, over time I failed treatment again, treatment again, things got pretty bad. I, at one point I was shooting meth, and that was a tough one. About five years doing that. Um, ended up quitting in 2000. Um, cold Turkey did it, went along well and then had a very bad marriage. Uh, that got me back into the appeal bill using, uh, pretty much stayed away from everything else though. And I also was part of that marriage. Uh, when things bad would happen, uh, pills weren't always available. Uh, it turned alcohol.

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DITL clip: Sherrie intro

Read aloud time: 3 min

PLACEHOLDER SLIDE
Will be deleted

Sherry (02:44):

My name's Sherry. I'm from Boston, Massachusetts. I currently live with my husband, our daughter, our 16-year-old dog. And my mom, she lives downstairs. I'm a caretaker from my mom as well. My daughter was born in, uh, June 20th, 2002. Um, at which time I had an emergency C-section, something, I don't know if it was with the injection or, or what have you, but I experienced severe back pain. Um, after my emergency c-section in the doctor that I was currently seeing, um, prescribed Percocet for me. I was on Percocet for over three months, um, with a follow up. Um, on a three month follow up, they asked me a bunch of questions, you know, how I was feeling and stuff like that. And I told her that I was actually doing very well, that my life was getting back to normal, that, um, my back pain was seasoning, and I was immediately cut off Percocet the following day. I didn't know who I was, where I was, I didn't know what I was experiencing. So I actually went to the streets to look for opiates for Percocet. That lasted for about maybe a month. I could find the Percocet. A friend of mine was getting them for me, and at which time, um, she could no longer get them. Not

Sherry (06:09):

I was introduced to Oxycontin. Um, this was during the epidemic. So, um, Oxycontin, what I, what I purchased actually did more for me in six hours than Percocet did for six weeks. So, um, it was a euphoria that I've never experienced before, and, um, I felt invincible at that time. I felt like I could do anything. I was mother of the year. I was, you know, caretaker of the year. I was everything. And, um, I was off and running with that for a while. That lasted not very long. I want to say probably, um, a few months with the, with the dosage I was getting at that time. Um, I was increased in dosage of Oxycontin, um, probably weekly. You know, I started with a 10 milligram and it went all the way up to, I wanna say 240 milligrams a day. Um, and 240 milligrams was no longer giving me the euphoria anymore.

Sherry (07:11):

It was giving me a chase. It was giving me another full-time job just looking for, for the medication. Um, I remember one day, um, it was no longer available. This was probably after a year of using, um, opiates. After I had my daughter. I went out for breakfast with my husband, at which time, um, you know, I, I wasn't feeling well. I had the flu. I didn't know what was going on again. Um, I was experienced body aches and everything else. Um, so after we had breakfast, I went home. I laid down for a little while, and a friend of mine came by with an Oxycontin, and I did a little bit. And, um, I immediately felt better, like my flu was gone. So I knew at that time I was physically addicted to opiates and, um, that it was something I needed on a day-to-day basis in order to maintain.

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Fundamental Concepts of Pain Management

Ariana M. Nelson, MD, FASRA

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How to Evaluate, Manage, and Escalate Care for Pain

- Comprehensive pain assessment
- The art of multimodal therapy
- When to refer to a pain specialist

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Comprehensive Pain Assessment

History and Physical	Diagnostic Exams	Prior Treatments and Diagnostics	Psychological and Social Evaluations	Risk and Safety Checks
Detailed HPI of pain complaint ▪ Onset, palliation/provocation, quality, radiation, timing, positional changes **Focused PE** ▪ MSK, neurological assessment (strength, sensation) **History** ▪ Include social history (alcohol, drug, tobacco use) ▪ Smoking/alcohol can worsen pain ▪ Consider SBIRT for substance use ▪ Intentions/status for contraception, pregnancy, and breastfeeding	**Order/review** ▪ Imaging, whether psychological/medical interventional/surgical ▪ Peripheral neuropathy workup vs autoimmune ▪ EMG/NCS if isolated neuropathy ▪ Pain type: nociceptive, neuropathic, nociplastic	**Review past treatments** ▪ Pharmacologic ▪ Nonpharmacologic (CBT, PT, acupuncture, chiro, interventional, etc)	**Mental health screen** ▪ PHQ-4 (depression/anxiety) ▪ C-SSRS Columbia scale (suicide) **Mental health history** ▪ ACEs/trauma history ▪ Discuss smoking, alcohol affect on pain	**If considering opioid therapy** ▪ ORT or SOAPP-R ▪ PDMP check ▪ UDS

Pain and Functional Scales

Pain scales (e.g.)
- VAS, Wong-Baker FPS, NRS, PEG, body diagram

Functional scales (e.g.)
- Functional Pain Scale, Sickness Impact Profile, Roland-Morris Questionnaire, Oswestry Disability Index

- **Multidimensional scales: MPQ, Brief Pain Inventory (measures pain severity, function, and quality of life)**

CBT = cognitive behavioral therapy; FPS = faces pain scale; MPQ= McGill Pain Questionnaire; MSK = musculoskeletal; NRS = Numeric Rating Scale; ORT = opioid risk tool; PDMP = Prescription Drug Monitoring Plan; PE = physical exam; PEG = pain, enjoyment, general activity; PT = physical therapy; UDS = urine drug screening; SBIRT = Screening, Brief Intervention, and Referral to Treatment.

Stretanski MF, et al. Pain Assessment. [Updated 2025 Jun 22]. StatPearls [Internet]. 2025. Available from: https://www.ncbi.nlm.nih.gov/books/NBK556098/. Austria-Corrales F, et al. *Front Public Health*. 2023;11:1157581. Nijs J, et al. *Braz J Phys Ther*. 2023;27(4):100537. Dowell D, et al. MMWR Recomm Rep. 2022;71:1-95.

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Types of Pain

NOCICEPTIVE / INFLAMMATORY	NEUROPATHIC	NOCIPLASTIC	MIXED TYPES (NOCICEPTIVE/ NEUROPATHIC)
Response to an injury or stimuli; *typically* acute	Develops when the nervous system is damaged; chronic	Arises from altered nociceptive function; *typically* chronic	Primary injury and secondary effects
Post-operative pain, sports injuries, arthritis, sickle cell disease, mechanical low back pain	Post-herpetic neuralgia, trigeminal neuralgia, distal polyneuropathy, CRPS, neuropathic low back pain	Fibromyalgia, irritable bowel syndrome, nonspecific low back pain	

Nijs J, et al. *Braz J Phys Ther*. 2023;27(4):100537. doi: 10.1016/j.bjpt.2023.100537. Epub 2023 Aug 22. PMID: 37639943; PMCID: PMC10470273.

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The Art of Multimodal Therapy

Core principles of chronic pain management

- **Focus on function**, not just pain scores (eg, walking daughter down the aisle, return to work, play golf)
- Advise your patients:
  - No treatment fully eliminates pain
  - All treatments are associated with side effects and complications
  - **Multimodal therapy** offers the best outcomes
  - Engage in **active** care vs **passive** care (exercise, stretching, yoga, Pilates, nutrition, etc)

Principles of therapy

- Avoid pharmacologic approaches when topical or nonpharmacologic may be equivalent (or better)
- Treat based on **pain characteristics**
  - Neuropathic (topical lidocaine, topical capsaicin, gabapentinoids)
  - Inflammatory/arthritic (acetaminophen, NSAIDs including topical diclofenac, low-dose steroids)
  - Nociplastic (SNRIs, TCAs, gabapentinoids)
- **Reserve opioids** for acute pain as much as possible
  - Utilize opioids for chronic pain when pain has been refractory/difficult to manage
  - If continuing opioids, need ongoing assessment for improvements in pain and function

Mannion A, et al. *Spine*. 1999;24:2435-2448. Argoff CE, et al. *Pain Med*. 2009;10(suppl2):S53-S66. https://doi.org/10.1111/j.1526-4637.2009.00669.x 3. Dowell D, et al. *MMWR Recomm Rep*. 2022;71:1-95.

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Now, let's watch a video on multimodal therapy for treatment of chronic pain

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DITL Clip: Multimodal Therapy

Read aloud time: 3 min

PLACEHOLDER SLIDE
Will be deleted

Bill Teller (14:21):

One of the, the non-drug things that I do to help manage the pain, I have a morning routine that I have to do because the pain medications don't take care of all of it without getting, um, the back loosened up. Things get so tight. What I do is, um, I I, I lay down get up routine because it helps to stretch my back. It's get up, get my coffee ready, whatever, and I have, but I have to, when, when the pain kind of reaches the worst point, that's when I need to go lay down again. And it's five to 10 minutes, um, laying down, it stretches that. Then I get up, I do whatever's next fire at the computer, and well, that pain's gonna get bad again. It's time to go lay down again and, um, you know, another five to 10 minutes. This may happen four times, five times in an hour, and then it reaches a point where things wrong with the pain, that's make it, I'm okay.

Sherry (28:08):

...non-drug therapies outside to, um, help me maintain my sobriety today. Um, meditation. I do daylight therapy as well during the winter months, um, which seems to help with my mental health. I've tried yoga. I'm not flexible, sorry, I'm just not. I do walk a lot. I find myself meditating when I'm actively walking. That's when I'm at peace with myself, and that's when I can really focus on my gratitude. You know, I walk my dog. My dog is wonderful therapy. I crochet. I try. Driving's a big thing for me. Uh, no radio, no anything. Um, just me in the road, gardening. I mean, I've tried that. I don't have a green thumb.. That's what I do for alternative, alternative therapy versus, um, drugs.

Bill Teller (17:12):

Do things so you don't focus just on that pain, do something to help other people, you know, that's, uh, that's a good therapy for the mind, and that helps with if, if your mental state is good, your pain's not gonna be as bad, you know, mind body connection. If you're not doing well, you're gonna feel more pain. So you need to do what it takes to mitigate that. One of the things I need to do that would help me would be to get rid of this weight. And I initially lost 55 pounds on my own. I did notice a little difference, but not much. Uh, it just isn't enough. So my physician decided to give me semaglutide. That really helped. It's, it, it was a good thing, um, since lost another, was it 80, roughly 80 pounds. And yeah, there's, there's been a difference. [cut here]

Bill Teller (19:01):

Having a pet is a, is a really good thing for people with pain. Um, I have a cat. Um, she's a cool cat. Like when pain's bad, she pays close attention to me. She'll be up there doing her per thing and, and staying right by, right by my side. It's when I'm sick with anything, petting a cat or a dog make you feel better, and it takes your mind off the pain. It does, and maybe even makes it better. Oh, mind body connection thing. Again,

Add to video launch page in final deck - Note: Semaglutide was used for weight loss

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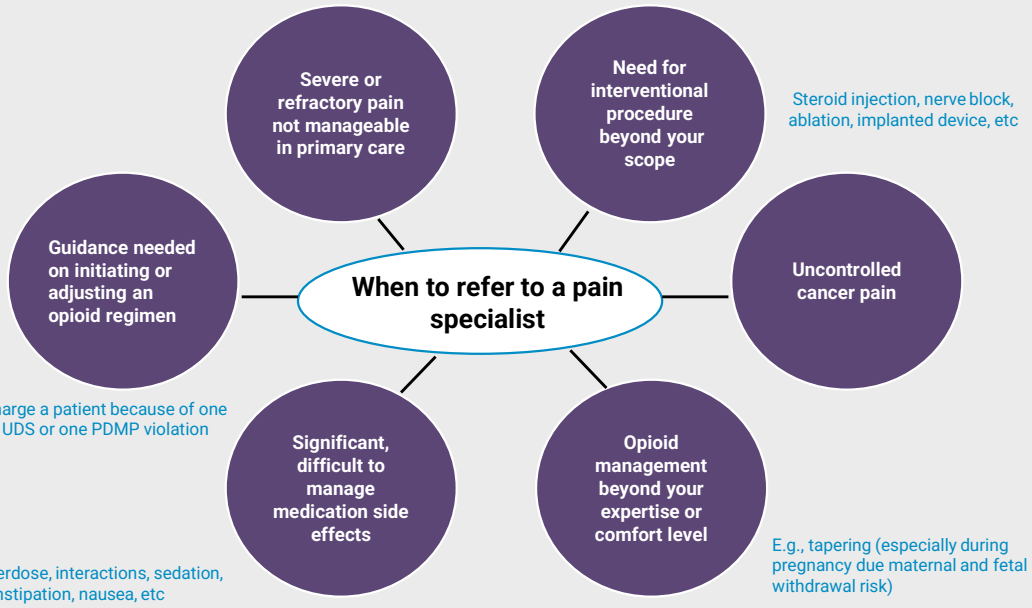
When to Refer to a Pain Specialist



VA/DoD Clinical Practice Guidelines. VA/DoD CLINICAL PRACTICE GUIDELINE FOR MANAGEMENT OF OPIOID THERAPY FOR CHRONIC PAIN . 2010. https://www.va.gov/painmanagement/docs/cpg_opioidtherapy_summary.pdf?utm_source=chatgpt.com. Referral to a Pain or Addiction Specialist. 4/1/12. https://oasas.ny.gov/news/referral-pain-or-addiction-specialist. URLs accessed 9/30/25.

21

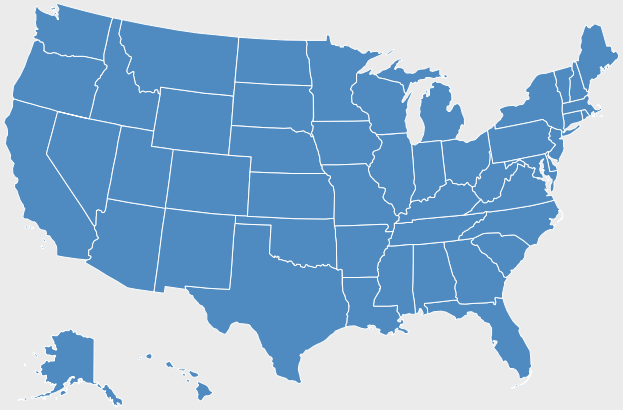
Screening Tools for Opioid Use Disorder

- PDMPs
- Urine toxicology
- Risk assessment tools
- Red flags
- When to refer to an addiction specialist

22

Prescription Drug Monitoring Programs (PDMPs)

Now in all 50 states
(Missouri's activated in Dec. 2023)



PDMPs purposes[1]
- Provides complete history of controlled substance use
- Prevents "doctor shopping"

What to look for[1]
- Dates of refills (on time? early?)
- Small fills from multiple sources (prescription shopping)
- Multiple pharmacies
- Refills in different states
- Practitioner issuing prescriptions (Dentist? Surgeon? Multiple ERs?)
- Potential drug-drug interactions (eg, opioids, benzos, Z-drugs)

Pregabalin
- Federally controlled; gabapentin controlled in 7 states (AL, KY, MI, ND, TN, VA, WV); on PDMPs[1-3]

Narxcare score[2]
- Associated with higher doses, more pharmacies, more prescribing practitioners
- Higher risk, in theory, but not a direct marker of illicit drug use or prescription misuse

Use concerning PDMP results to initiate discussion with the patient

1. Fenske JN, et al. NIH. *National Library of Medicine*. Pain management (www.ncbi.nlm.nih.gov/books/NBK572296/). URLs accessed 9/23/2025. 2. https://duval.floridahealth.gov/programs-and-services/preventoverdoseduval/pdmp_guide_florida_od2a_duval_county_single_page_layout.pdf. 3. https://journals.lww.com/neurotodayonline/fulltext/2022/04210/should_gabapentin_be_a_controlled_substance_.5.aspx

23

Urine Toxicology

Purpose:
- Is patient taking what you're prescribing?
- Is patient taking what someone else is prescribing?
- Other legal (or illicit) substances that could interact with what you plan to prescribe

Testing:
- Point-of-care ELISA test (used in ER, looks for opiates, benzos, barbiturates, amphetamines, THC, cocaine, etc)
- Can have false positives
- "Opiate" screen doesn't test for opioids: methadone, fentanyl, buprenorphine, hydromorphone may show up negative
- Send-out for GCMS/LCMS testing: checks for metabolites to ensure prescribed drug is being taken and metabolized

Look for:
- Lab values to ensure no dilution/tampering of sample (specific gravity, creatinine)
- Presence of prescribed drug and at least one metabolite (GCMS/LCMS)

If there are concerning results:
- Demonstrate curiosity instead of accusing/stigmatizing the patient ("So can you tell me why we got this result?")

Kale N. *Am Fam Physician*. 2019;99(1):33-39.

Unexpected UDT Results: Possible Causes

Result	Possible cause
Illicit substance present	Illicit substance use, false-positive result due to cross-reactivity
Low creatinine level and specific gravity	Deliberate dilution of urine; low body mass, renal dysfunction
Nonprescribed drug present	Nonmedical use of prescription medication; false-positive result due to cross-reactivity
Prescribed drug absent	• True negatives: patient has not taken medication in the detection window; rapid metabolizer • False negatives: urine concentrations below cutoff levels; contaminant present that interferes with test
Prescribed drug present in high concentration and/or metabolites absent	Recent dosing; concentrated urine (high creatinine level); unsanctioned dose escalation; concurrent use of prescription and illicit substances; "shaving" (ie, adding a small amount of drug to the urine to demonstrate compliance)

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Screening and Assessment Tools: Opioid Risk Tool (ORT)

This tool should be administered to patients during an initial visit prior to beginning opioid therapy for pain management

A score of 3 or lower indicates low risk for future opioid abuse, a score of 4–7 indicates moderate risk for opioid abuse, and a score of 8 or higher indicates a high risk for opioid abuse

Mark each box that applies	Female	Male
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Rx drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Rx drugs	5	5
Age between 16—45 years	1	1
History of preadolescent sexual abuse	3	0
Psychological disease		
ADD, OCD, bipolar, schizophrenia	2	2
Depression	1	1
Scoring totals		

- Opioid-specific screening tools such as ORT can assess risk for opioid misuse in patients prescribed long-term opioid therapy for chronic pain
- ORT is better suited for large-volume, low-risk populations due to its simplicity
- However, its sensitivity is not as good as some other tools, such as SOAPP-R

SOAPP-R = Screener and Opioid Assessment for Patients with Pain-Revised.

NIDA. Opioid Risk Tool (https://nida.nih.gov/sites/default/files/opioidrisktool.pdf). Accessed 10/16/25. Dale R, et al. *J Community Support Oncol*. 2016;14:94-100.

25

Screening and Assessment Tools: SOAPP-R

The following are some questions given to patients who are on or are being considered for medication for their pain. Please answer each question as honestly as possible. There are no right or wrong answers.

Patient name _____ **Date:**_____ **Score:**_____

Please answer the questions using the following scale:	Never	Seldom	Sometimes	Often	Very Often
	0	1	2	3	4
1. How often do you have mood swings?	o	o	o	o	o
2. How often have you felt a need for higher doses of medication to treat your pain?	o	o	o	o	o
3. How often have you felt impatient with your doctors?	o	o	o	o	o
4. How often have you felt that things are just too overwhelming that you can't handle them?	o	o	o	o	o
5. How often is there tension in the home?	o	o	o	o	o
6. How often have you counted pain pills to see how many are remaining?	o	o	o	o	o
7. How often have you been concerned that people will judge you for taking pain medication?	o	o	o	o	o
8. How often do you feel bored?	o	o	o	o	o
9. How often have you taken more pain medication than you were supposed to?	o	o	o	o	o
10. How often have you worried about being left alone?	o	o	o	o	o
11. How often have you felt a craving for medication?	o	o	o	o	o
12. How often have others expressed concern over your use of medication?	o	o	o	o	o
13. How often have any of your close friends had a problem with alcohol or drugs?	o	o	o	o	o
14. How often have others told you that you had a bad temper?	o	o	o	o	o
15. How often have you felt consumed by the need to get pain medication?	o	o	o	o	o
16. How often have you run out of pain medication early?	o	o	o	o	o
17. How often have others kept you from getting what you deserve?	o	o	o	o	o
18. How often, in your lifetime, have you had legal problems or been arrested?	o	o	o	o	o
19. How often have you attended an AA or NA meeting?	o	o	o	o	o
20. How often have you been in an argument that was so out of control that someone got hurt?	o	o	o	o	o
21. How often have you been sexually abused?	o	o	o	o	o
22. How often have others suggested that you have a drug or alcohol problem?	o	o	o	o	o
23. How often have you had to borrow pain medications from your family or friends?	o	o	o	o	o
24. How often have you been treated for an alcohol or drug problem?	o	o	o	o	o

- The 24-item **SOAPP-R** is a more sensitive screening tool; however, it is also more time-consuming[2,3]
- A score of ≥18 will identify approximately 81% of patients at high-risk for opioid misuse, with a negative predictive value of approximately 87%

1. SOAPP-R Questionnaire. (https://ddph-materials.s3.amazonaws.com/HelpIsHere/SOAPP-Tool.pdf). Accessed 10/16/25. 2. Dale R, et al. *J Community Support Oncol*. 2016;14:94-100.
3. Butler SF, et al. *J Pain*. 2008;9:360-372.

26

Now, let's watch a video on screening tools for OUD

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DITL Clip: Pain Management in Patients With OUD (UDTs, Pill Counts, e

Read aloud time: 2 min

PLACEHOLDER SLIDE Will be deleted

Bill Teller (21:13):

As a patient, uh, you're really gonna struggle to find a physician, okay? If, if you've had a, an addiction problems in the past, you are gonna struggle. Um, most doctors seem, they, they don't want to deal with that. I showed my, my, my physician that, you know, I, I can do this by not messing up after the alcohol instance that I had. She was willing to trust me. And that's something that the physician needs to do. They gotta be willing to trust.

Bill Teller (11:40):

Even though I, I screwed up and had problems with the alcohol over time, you know, trust, trust was rebuilt. Uh, it took about four years. We do have a pain contract. Pretty easy to, you know, basically it's don't get 'em early. Pass your p tests, <laugh> if there's a pill count. You know, make sure your pills are within the, in the right range for the way you're prescribed. I'm, I'm giving leeway in how I take my pain meds within as long as I take 'em within, you know, um, standards for prescribing medications, I'll, how they're to be prescribed. Uh, the leeway is in, okay, if I need to take six one day, I can do that, but still has to be managed for the full period of time.

Sherry (20:46):

Back in 2010, they were only giving me a week's worth of medication for the first three months I was seeing my medical team. Um, I'd have to go every week. I'd have to give a urine. I did sign a contract, um, stating that if I was used that they could kick me off the program at any time. I went every Thursday at one o'clock for three months. Um, from that point, it went to, I was going, um, once a month and still doing the urines. That was probably, I wanna say about three or four years. And now, um, I do go every month, but they don't require the urine. And that's because of the trust that I built up with my medical team.

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Red Flags

Aberrant drug-related behaviors

Unexpected/discordant UDS findings[1]
- No prescribed medication or metabolite
- Prescribed medication, but no metabolite (possible tampered UDS)
- Unprescribed medication and metabolite
- Presence of illicit substance (often fentanyl)

Unexpected/discordant PDMP findings[2]
- Multiple prescribers
- Multiple short prescriptions
- Use of multiple pharmacies

Unexpected/discordant random pill counts[3]
- For a 90-pill prescription 15-day mark, ideally 40-50 pills remain
- 20 pills is a problem (overuse vs diversion)
- 80 pills is a problem (prescribing too many vs diversion)

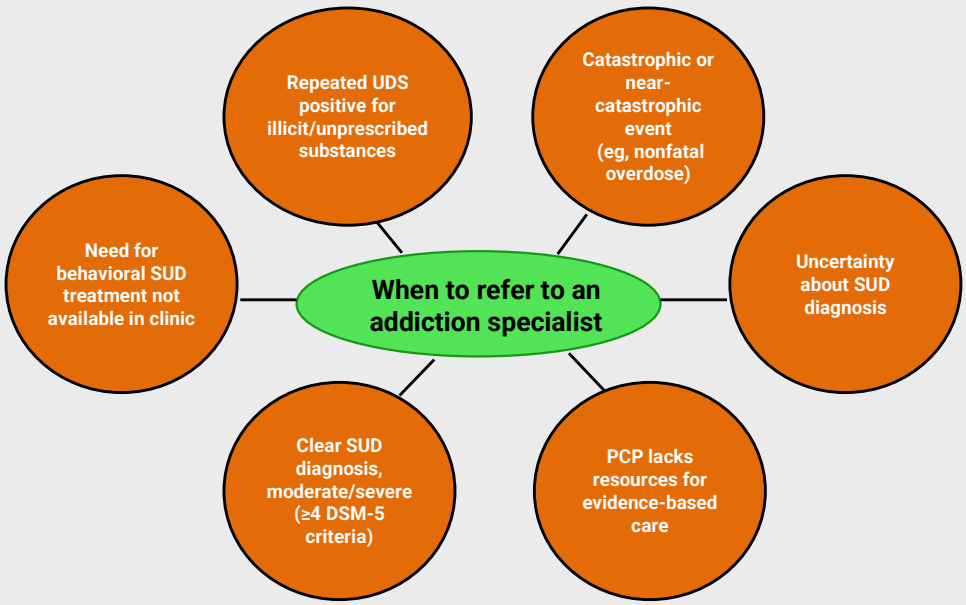
Other clinically problematic behaviors[2,3]
- Multiple early refill requests
- Belligerence/hostility with office staff
- Insistence on high-potency or high-dose opioids only

Cravings, withdrawal symptoms, other untruths[2]
- May indicate opioid use disorder OUD

Kale N. *Am Fam Physician*. 2019;99(1):33-39. Miller SC, et al. The ASAM Principles of Addiction Medicine. Wolters Kluwer; 2024. 3. Merlin JS, et al. *J Gen Intern Med*. 2018 Feb;33(2):166-176.

29

When to Refer to an Addiction Specialist



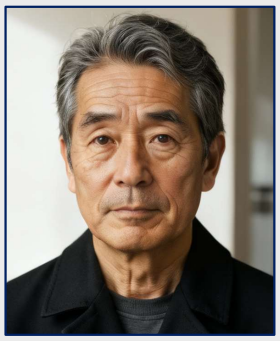
Referral to a Pain or Addiction Specialist. 4/1/12. https://oasas.ny.gov/news/referral-pain-or-addiction-specialist. Accessed 9/30/25.

30

Polling Question

- Mr. Jones is a 56-year-old male with chronic abdominal pain, diarrhea, migraines, and nonspecific neck and low back pain without identifiable inciting cause. MRIs of the abdomen, brain, cervical, and lumbar spine are negative except for mild facet arthropathy. Which medication is MOST indicated at this time?

  a) Ibuprofen
  b) Pregabalin
  c) Oxycodone



31

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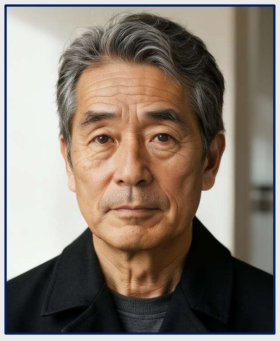

Pregabalin is FDA-approved for neuropathic pain and has literature support for use in nociplastic pain, where no structural or inflammatory source is identified. NSAIDs are only recommended when there is evidence of inflammation, and opioids are not indicated for chronic pain syndromes without a clear etiologic cause.

Cross AL, et al.. Pregabalin. [Updated 2024 May 2]. In: StatPearls [Internet]. 2025. Available from: https://www.ncbi.nlm.nih.gov/books/NBK470341/. Accessed 11/6/25. Marcianò G, et al. *Pharmaceutics*. 2023 Apr 6;15(4):1165.

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Faculty Commentary

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LS1

Fundamentals of Addiction Medicine

Joseph O. Merrill, MD, MPH

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Slide 34

LS1 Note to faculty:
Fundamentals of Addiction Medicine– 25 min [Merrill]
- Didactic sides –12 min
- DITL video clips ~5 min
- Polling – 3 min
- Brief faculty commentary – 5 min
Lauren Scott, 2025-11-14T15:05:28.285

Recognizing OUD

- OUD neurobiology
- Defining physical dependence and addiction
- DSM-V criteria for OUD

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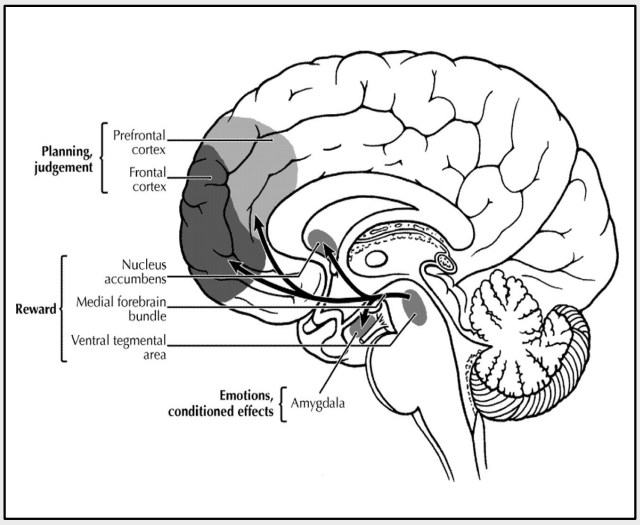
Mesolimbic "Reward" Pathway

OUD Neurobiology[1]

- Ventral tegmental area (VTA) → **dopaminergic**, GABAergic, glutamatergic
- VTA connects to:
  - **Nucleus accumbens** (reinforcement and reward for motor learning)
  - **Prefrontal cortex** (higher-order processing, eg, planning/executive functioning)
- Dopamine release into NAcc regulates motivation and desire for stimuli →reinforcement and reward for motor learning
- Dopamine release into PFC affects executive functioning (substances)

Limbic System[2]



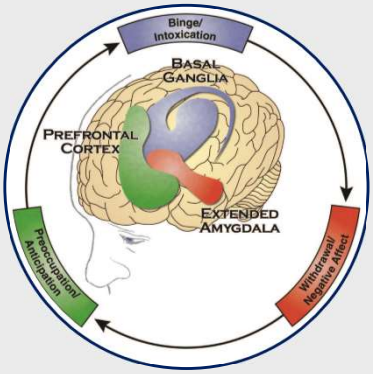
1. Herron A, et al. *ASAM Essentials of Addiction Medicine: 2nd ed.* LWW; New York, NY; 2015. 2.Tomkins DM, Sellers EM. *CMAJ.* 2001;164(6):817-21.

36

Neurobiology of Opioid Use Disorder (OUD)

Brain Disease Model[1-3]

- OUD is chronic and relapsing; caused by repeated/sustained exposure to exogenous opioids
- Leads to disruption of complex neural networks that subsequently drives compulsive use patterns
- Thought to "hijack" body's reward system; individuals remain in state of reward deficit in absence of opioids; nonopioid-related pleasures are unable to restore balance
  - This primarily results from alterations in mesolimbic dopamine system
- Individuals with OUD often have decreased inhibitory control with increased impulsivity
  - Likely due to changes in neural networks/structures (ventral striatum, striatum-medial orbitofrontal cortex)
- OUD leads to hyperactivation in response to drug cues or stimuli
  - Likely due to changes in prefrontal cortex, anterior cingulate cortex, thalamus, and caudate
- Over time, OUD leads to negative emotional states (depression, irritability)
  - Likely due to changes in hypothalamic-pituitary axis that govern stress response



Neurotransmitter systems implicated in neuroadaptations associated with binge/intoxication stage of addiction[4]

1. Herlinger K, Lingford-Hughes A. *Addiction.* 2022;117:495-505. 2. Koob GF, Volkow ND. *Neuropsychopharmacology.* 2010;35:217-238. 3. Miller M, et al. *Brain Cogn.* 2020;138:105495.
4. Modified from Substance Abuse and Mental Health Services Administration (SAMHSA). Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health [Internet]. (www.ncbi.nlm.nih.gov/books/NBK424857/). Accessed 10/16/25.

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Defining Physical Dependence and Addiction

Physical dependence:

Withdrawal is the only symptom of abstinence

Addiction or a substance use disorder:

Characterized by physical dependence + MANY other attributes

ASAM definition of addiction:

- A **treatable, chronic medical disease** involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences
- People with addiction use substances or engage **compulsive behaviors** that continue despite harmful consequences
- Addiction **prevention and treatment** are generally as successful as those for other chronic diseases

2020 Focused Update Guideline Committee. ASAM. https://www.asam.org/quality-care/definition-of-addiction. Accessed 10/20/25.

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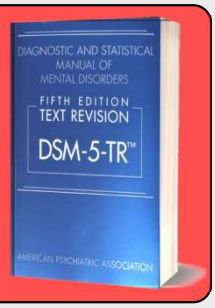
DSM-V Criteria for Opioid Use Disorder[1,2]

Severity of substance use disorder is based on number of criteria satisfied within a 12-month period at the time of diagnosis[1]:

- **2–3: Mild**
- **4–5: Moderate**
- **6+: Severe**



Physical dependence does not necessarily equal addiction/ substance use disorder (SUD)[3]

- While physical dependence is one of the criteria used to diagnose SUDs, formal satisfaction of the DSM-V criteria for OUD requires consequences due to opioid use in other domains

1. Often taken in larger amounts or over a longer period than was intended
2. A persistent desire or unsuccessful efforts to cut down or control use
3. A great deal of time is spent in activities necessary to obtain, use, or recover from the substance's effects
4. Craving or a strong desire or urge to use the substance
5. Recurrent use resulting in a failure to fulfill major role obligations at work, school, or home
6. Continued use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by its effects
7. Important social, occupational, or recreational activities are given up or reduced because of use
8. Recurrent use in situations in which it is physically hazardous
9. Continued use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance
10. Tolerance
11. Withdrawal

DSM-V TR = Diagnostic and Statistical Manual of Mental disorders, 5th edition, Text Revision.

1. Modified from American Psychiatric Association (APA). *Diagnostic and Statistical Manual of Mental Disorders, 5th ed, Text Revision*, APA, 2022. 2. Dowell D, et al. *MMWR Recomm Rep*. 2022;71:1-95.
3. Hasin DS, et al. *Am J Psychiatry*. 2013;170:834-851.

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Treatment for OUD

- MOUDs
- Psychosocial therapy
- Pain management in patients with OUD
- Minimizing stigmatizing language

40

Treatment of Opioid Use Disorder

Detoxification alone is not adequate treatment and is associated with increased risk of morbidity and mortality
- **Pharmacotherapy is the most effective treatment modality**[1]

Buprenorphine: Long-acting, high-affinity, mu-opioid receptor partial agonist; can be offered in office-based practice and prescribed to retail pharmacy[1,2]

- Various formulations: sublingual films and tablets, long-acting subcutaneous injections (weekly or monthly)
- Suppresses cravings and withdrawal symptoms; can block effects of recreational opioids
- Results in reduced opioid use, increased retention/engagement in treatment, reduced overdose risk, reduced all-cause mortality risk[3]
- Primary challenge is potential for precipitated withdrawal if initiated too rapidly or prematurely
- As a partial agonist, buprenorphine may not be able to fully address cravings in heavy opioid users

Methadone: Long-acting mu-opioid receptor full agonist; offered by licensed opioid treatment program[1,2]

- Typically, patients present for daily oral dosing; take-home doses up to a month's supply offered to stable patients with sustained engagement in treatment. Twice or thrice daily dosing sometimes offered by select OTPs
- Suppresses cravings, withdrawal symptoms, and can block effects of recreational opioids
- Results in reduced opioid use, increased retention/engagement in treatment, reduced overdose risk, reduced all-cause mortality risk[3]
- Some patients may find daily dosing to be logistically challenging
- Prolongs QT interval; numerous DDIs

Naltrexone: Long-acting mu-opioid receptor antagonist; fully blocks effects of opioids[1,2]

- Does not suppress cravings or subjective withdrawal symptoms; should only be considered in select, highly motivated patients
- Associated with poor retention in treatment and subsequent return to use

Buprenorphine + naloxone (partial mu agonist + opioid receptor agonist)[3]

- Further reduces cravings, risk of buprenorphine misuse/diversion, and overdose
- Similar efficacy/retention to methadone; can be given outpatient, titrated to maintenance within days
- May result in opioid withdrawal when injected

OTP = opioid treatment program.

1. Miller SC, et al. *The ASAM Principles of Addiction Medicine*. Wolters Kluwer; 2024. 2. American Society of Addiction Medicine (ASAM). *J Addict Med.* 2020;14(2S suppl): 1-91.
3. Togioka BM, Patel P. Buprenorphine and Naloxone. StatPearls Publishing. Jan 2024.

41

Treatment of Opioid Use Disorder

- Psychosocial therapies can be a helpful adjunctive treatment modality but are often insufficient in the absence of pharmacotherapy

These therapies include:


Motivational interviewing


Individual therapy


Group therapy

Contingency management


Relapse prevention


Network therapy


Twelve-step facilitation


Digital health interventions

Miller SC, et al. *The ASAM Principles of Addiction Medicine*. Wolters Kluwer; 2024. ASAM. *J Addict Med.* 2020;14(2S suppl):1-91. Miller-Rosales C, et al. *JAMA Netw Open*. 2023;6(7):e2323741.

42

(Acute) Pain Management in Patients With OUD

For patients with OUD on opioid agonist therapy (OAT), first maximize nonopioid multimodal analgesic strategies	OUD should not preclude use of opioids for severe pain refractory to nonopioids	Patients on methadone maintenance treatment	Patients on buprenorphine maintenance treatment
▪ For example, acetaminophen, topical and oral NSAIDs, topical lidocaine, analgesic antidepressants, gabapentinoids, muscle relaxants, neuraxial or regional anesthesia ▪ Consider ketamine infusion or PCA with pain specialist assistance	▪ Home methadone or buprenorphine will sometimes provide adequate analgesia, but often not ▪ Patients sometimes require higher doses of short-acting opioids for pain due to iatrogenic increase in opioid tolerance from OAT ▪ Euphoria and relapse much less likely if MOUD being utilized/continued	▪ Continue home once daily methadone dose; also add short-acting full mu-opioid receptors ▪ Or split home methadone dose across 3–4 divided doses. Methadone's analgesic properties last 6–8 hours while its ability to suppress cravings lasts 24–36 hours; patients often require additional short-acting opioids ▪ Short-acting opioids with high binding affinities (eg, fentanyl or hydromorphone) can help to overcome methadone mu-opioid receptor blockade	▪ Mild-moderate acute pain may be relieved by increasing home buprenorphine dose or with addition of short-acting full mu-opioid receptor agonists ▪ High-doses of buprenorphine: strong binding affinity may prevent some short-acting opioids from exerting analgesia ▪ **Prior guidance (pre-2021) was to taper or stop buprenorphine for major surgeries; consensus in the anesthesia/pain medicine world now is to continue at home dose or increase.**

Miller SC, et al. *The ASAM Principles of Addiction Medicine*. Wolters Kluwer; 2024. Kohan L, et al. *Reg Anesth Pain Med*. 2021;46(10):840-859. doi: 10.1136/rapm-2021-103007. Epub 2021 Aug 12. PMID: 34385292.

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Now, let's watch a video on pain management in patients with OUD

44

DITL clip: Pain Management in Patients with OUD

Read aloud time: ~1.5 min

PLACEHOLDER SLIDE
Will be deleted

Sherry (15:36):

in 2024, early 2024, I found out about the impinged nerve. It was a pain like no other. Like, I never, I never experienced pain like sciatic pain. Um, I was back and forth to the ER three different times. I got an MRI done. Um, again, I red listed myself in hospitals. Um, so that's the first thing that comes up is that, um, I was an opioid user, and I think that's all that the medical professional seen, the medical profession seen in the hospitals. And I finally found an orthopedic surgeon that is 45 minutes away from my home, 32 miles away. Um, and I went the distance for her to, um, at least take a look at my MRI, which she did. Um, and I, I broke down, you know, I broke down to her and I was like, I'm not drug seeking. Like I'm not drug seeking. I'm, I'm want something to alleviate my pain without the use of opioid medication. Um, the suboxone that I was current on at that time wasn't the dosage, just wasn't doing enough for me. Um, and she just looked me directly in the eye and she goes, I hear you. I'm listening to you, and I know you're not lying.

Sherry (16:53):

I felt such relief that day, um, that someone was actually taking me seriously. And she introduced me to, um, another orthopedic surgeon through the MGH, um, through the MGH network, um, that I got cortisone shots, along with steroids done. Um, the first dose didn't work. So, um, when I spoke with my primary care physician and Dr. Lee, um, who's part of that team, I was introduced to an injectable suboxone for pain management, which, um, has been working.

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Minimizing Stigmatizing Language

- For individuals with SUDs, stigmatizing language can reduce their willingness to seek treatment, perpetuate social isolation, and negatively impact the quality of care they receive
- Use **person-first language**, eg, “An individual with diabetes” instead of “diabetic”

Avoid using	Use instead
Junkie, addict, user	Person/patient/individual with OUD, in active use
Former/reformed addict	Person in recovery, person with OUD in remission
Abuse	Use (illicit substances) or misuse (prescription medications)
Opioid replacement therapy, medication-assisted treatment	Pharmacotherapy, opioid agonist therapy, medication for OUD
Clean	Testing negative or in remission/recovery
Dirty	Testing positive or person who uses drugs
Relapse	Return to use
Sober	In recovery/remission

Modified from National Institute on Drug Abuse (NIDA). Words matter—Terms to use and avoid when talking about addiction (https://nida.nih.gov/nidamed-medical-health-professionals/health-professions-education/words-matter-terms-to-use-avoid-when-talking-about-addiction). Accessed 10/20/25.

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Now, let's watch a video on the harms of stigmatizing language

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DITL clip: Stigmatizing Language

Read aloud time: 1.5 min

PLACEHOLDER SLIDE
Will be deleted

Bill Teller (08:30):

When I had my cataracts done, the first surgery was okay. I received what was verse and fentanyl surgery went well, second time around a different anesthetist, same surgeon. Well, I will say I really felt the stigma 'cause I was given what I consider to be a baloney excuse, because the other ones also knew about my COPD and asthma. That was excuse that was given to me for not giving me anesthesia that potentially cause breathing problems. And I was like, oh, that's just bs. 'cause you the same place gave it to me last time with no issue. I was extremely angry at being treated like that, um, by a medical professional, especially after you, you've proven yourself for four years. I was very hurt, felt like they didn't care, you know, screw you because you're an addict.

Sherry (18:41):

during my active use, um, there was a lot of guilt and shame I'm an addict in recovery. The stigma of addiction, people look at it differently. I, I see it as a disease. Some people see it as drug seeking, you know, um, I didn't wake up one day and decide to become an addict. Like it gradually happened all the time. But as far as the medical profession trying to treat somebody with the disease of addiction, I think it's important that they really listen to what the patient's really trying to say to them. Because all of us that go in in pain are drug seeking. We're just looking for relief.

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Opioid Overdose: Prevention and Management

- Educating patients and caregivers
- Why everyone should carry naloxone
- Counseling on safe storage of opioids

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US Deaths From Opioid Overdose

- 217 deaths daily from opioid overdoses, total (prescribed and nonprescribed opioids)[1]
- Fentanyl (or its derivatives) likely hiding inside anything purchased from a nonmedical source[2]
- Xylazine or medetomidine (alpha-2 agonists) may also be present; even if naloxone is administered to reverse respiratory depression, the patient may still be very sedated or have profound bradycardia[2-4]
- Emergency services should be activated even after reversal[2-5]
  - Depending on amount of fentanyl used, can have a long half-life (may outlast naloxone)
  - Presence of alpha-2 agonists will require supportive care as there is no reversal agent indicated for human use

1. https://www.cdc.gov/overdose-prevention/about/understanding-the-opioid-overdose-epidemic.html. 2. Substance Abuse and Mental Health Services Administration (SAMHSA). Overdose Prevention and Response Toolkit. 2025. https://library.samhsa.gov/sites/default/files/overdose-prevention-response-kit-pep23-03-00-001.pdf. 3. Philadelphia Department of Public Health. Health Alert. December 10, 2024. https://hip.phila.gov/document/4874/PDPH-HAN-00444A-12-10-2024.pdf/. 4. National Institute on Drug Abuse. September 2024. Xylazine. https://nida.nih.gov/research-topics/xylazine?utm_source=chatgpt.com. 5. Jordan MR, et al.. Naloxone. StatPearls 2025. https://www.ncbi.nlm.nih.gov/books/NBK441910/. URLs accessed 10/29/25.

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Now, let's watch a video on naloxone

51

DITL Clip: Naloxone

Read aloud time: 1 min, 17 sec

PLACEHOLDER SLIDE
Will be deleted

Sherry (25:06):

My current treatment that I'm under. I was also given, um, education and information on Naloxone, um, which my doctor educated me on. Um, but I'm also in the medical field. So, um, my company that I currently work for in the medical field actually just did a training on it, not just for myself, if anything should ever happen, but I also have a 22-year-old daughter in my home. I'm one bad decision away from making a bad decision. Um, and that's using drugs again. I mean, thank God my educate, my husband and my daughter on it as well, because if anything should ever happen to me, I want them to know what to do in order to save my life. So, um, I had it in my home and a year and a half ago, my next-door neighbor was overdosing.

Sherry (25:55):

I actually saved his life. So I always keep it in my home. In my town that I currently live in, we are very fortunate because we have naloxone boxes along certain streets where, um, drug use is commonly, um, known to have users on.. I think people should educate themselves on it. Um, keep it in your car, keep it in your home, keep it on your person. 'cause you never know who, whose life you're gonna save if it's not your own.

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Counseling on Safe Storage of Opioids

Best Practices for Opioid Safe Storage and Disposal

- **Keep opioids out of reach of animals or children**[1]
- **Advise patients to use a locked cabinet/safe**; patient or immediate caregiver can access only[1]
  - To get the point across, think of opioids being as deadly as a gun; you wouldn't leave that lying around
  - Consider that a child may inadvertently access
  - Others who enter the home may steal to misuse or divert
- **Opioid disposal**[1,2]
  - Drug take-back programs (https://www.dea.gov/takebackday)
  - Return to pharmacy
  - Purchasing activated charcoal/carbon (Deterra)

- **Advise patients not to flush opioids**[1,3,4]
  - In 2018, mussels in Puget Sound tested positive for oxycodone
  - Dolphins have tested positive for fentanyl
- **Naloxone** on the other hand, can be left out or kept in the car
  - Has no effect when no opioids are in the system[5]

1. CDC. Your Prescription Medicine: Tips for Safe Storage and Disposal. Updated June 24, 2025. https://www.cdc.gov/wtc/prescriptionsafety.html. 2. Brummett CM, et al. *JAMA Surg*. 2019;154(6):558-561. 3. CNN. Mussels in Washington's Puget Sound test positive for opioids, other drugs. May 25, 2025. https://www.cnn.com/2018/05/25/health/mussels-opioids-bn. 4. Science Alert. Dolphins in Gulf of Mexico Are Now Testing Positive For Fentanyl. December 10, 2024.https://www.sciencealert.com/dolphins-in-gulf-of-mexico-are-now-testing-positive-for-fentanyl. 5. Cid A, et al. Can Pharm J (Ott). 2021 Nov 5;155(1):9-11. URLs accessed 10/29/25.

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Clinical Consideration

- Brian, a 23-year-old male, presents to his primary care clinic requesting oxycodone for arm pain, endorsing last use 4 days ago. He appears agitated and restless. Vital signs show HR 110, BP 158/95. What is the next best step in his management?
  a) Prescribe short course of oxycodone
  b) Initiate buprenorphine treatment
  c) Refer to orthopedics for arm pain
  d) Provide clonidine and discharge

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Clinical Consideration

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d) Provide clonidine and discharge

Buprenorphine is a partial opioid agonist, commonly used to treat opioid use disorder and manage withdrawal. It is recommended in moderate to severe opioid withdrawal when enough time has passed since the last opioid use (usually >12-24 hours for short-acting opioids), to avoid precipitated withdrawal. Four days since last use, and evident withdrawal signs, make buprenorphine initiation the best evidence-based option.

Kumar R,et al. Buprenorphine. [Updated 2024 Jun 8]. In: StatPearls [Internet]. 2025 . Available from: https://www.ncbi.nlm.nih.gov/books/NBK459126/. Accessed 11/6/25.

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Faculty Commentary

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Case Study Discussion

LS1

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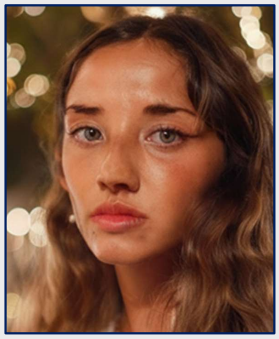
Case Study 1: Persistent Opioid Use After Surgery

Patient: Ashley, a 28-year-old woman, no prior medical history

Injury and Surgery: Distal radius fracture from motor vehicle accident → ORIF with hardware placement

Discharge meds: Oxycodone 5 mg q6h PRN (7-day supply)



- Course over 12 months:
  - Multiple opioid refills in first month
  - Develops burning, throbbing pain with allodynia/swelling → CRPS type I
  - Started on gabapentin, later duloxetine
  - Physical therapy and sympathetic block with partial relief
  - Opioid dose escalated to 20 mg q6h
  - Frequent “lost prescriptions” and early refills
  - Family reports sedation and irritability when medications unavailable
  - PDMP: overlapping prescriptions from multiple providers

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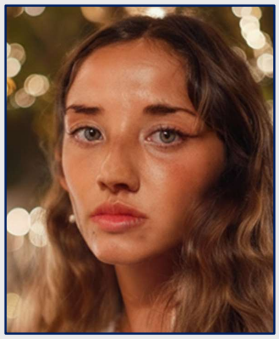
Slide 57

LS1 Faculty notes for this section:
15-minutes to include;
Case discussion
Polling
Faculty commentary
Lauren Scott, 2025-10-01T18:01:42.611

Polling Question

Which of the following are “red flags” in Ashley’s case?
(choose all that apply)



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Polling Question

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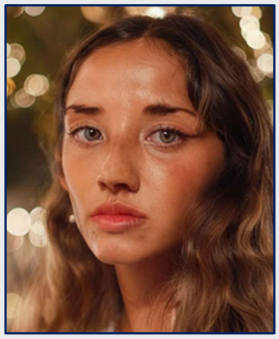

a) Multiple opioid refills in first month
b) Opioid dose escalated to 20 mg q6h
c) Frequent “lost prescriptions” and early refills
d) Family reports sedation and irritability when medications unavailable
e) PDMP: overlapping prescriptions from multiple providers

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Case Study 2: Opioid Use and PTSD in Chronic Pain

Patient: Rob, a 35-year-old male, military veteran

History: PTSD; lumbar spine injury 2 years ago (L4–L5 disc herniation)

Symptoms: Persistent low back pain with right leg radiculopathy

Medications: Started on hydrocodone/acetaminophen → escalated to oxycodone ER + IR

- Course:
  - Patient reports opioids relieve both pain and PTSD symptoms
  - Missed physical therapy sessions; states opioids are *"the only thing that worked"*
  - Early refill requests, escalating doses, reports of lost medications
  - Functional decline despite continued opioid therapy
  - Attempted taper → severe withdrawal and worsening PTSD flashbacks
  - Patient began seeking opioids from multiple providers

Rob meets DSM-5 criteria for opioid use disorder, severe
- Escalation beyond prescription
- Failed attempts to cut down
- Cravings, compulsive use
- Use despite harm
- Withdrawal symptoms

PTSD complicates treatment: opioids provided analgesia AND anxiolysis

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Polling Question

What risks are present when chronic pain and PTSD co-exist? (choose all that apply)

a) Increased risk of opioid misuse or opioid use disorder
b) Improved adherence to nonopioid therapies
c) Decreased efficacy of pain medications
d) Reduced need for multimodal pain management

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Polling Question

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b) Improved adherence to nonopioid therapies
c) Decreased efficacy of pain medications
d) Reduced need for multimodal pain management

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Polling Question

How should we alter care as prescription misuse progresses to use of illicit opioids, including fentanyl? (choose all that apply)

a) Continue prescribing the same opioid regimen
b) Rotate to a partial mu agonist
c) Initiate harm reduction strategies and evidence-based addiction treatment
d) Discharge the patient from care
e) Increase opioid dose to manage withdrawal

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Polling Question

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a) Continue prescribing the same opioid regimen
b) Rotate to a partial mu agonist
c) Initiate harm reduction strategies and evidence-based addiction treatment
d) Discharge the patient from care
e) Increase opioid dose to manage withdrawal

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Key Takeaways

- Listen to your patients who have chronic pain, and try to take your time with them; diligence up front will save you many headaches later on
- Describe risks/benefits of all prescriptions as clearly as you can
- Be compassionate but firm when it comes to prescribing opioids; if it's not helping anymore, it's time to use something else
- Don't be judgmental/stigmatizing with patients with OUD
- Ask for specialist help when you're not sure how to proceed

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Closing Q&A

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Question 1

Which assessment tool is most useful for evaluating the impact of pain severity on patient function and quality of life?

A. Visual Analog Scale (VAS)

B. Brief Pain Inventory (BPI)

C. Wong-Baker scale

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Slide 67

LS1 Faculty notes:
15-minutes for post-test questions and closing Q&A
Lauren Scott, 2025-11-14T14:58:40.832

Question 2

Krishna is a 62-year-old woman with a 4-year history of advanced osteoarthritis in her low back. Her pain is currently managed on hydrocodone bitartrate extended release (50 MME/day). She reports that her pain has significantly increased during the past 2 weeks, hampering activities of daily living, and is requesting to increase her hydrocodone dosage. Which of the following treatment options should be recommended first, while awaiting clinical and radiologic reevaluation?

A. Prescribe topical diclofenac or lidocaine with physical therapy

B. Rotate to another opioid based on her tolerance to hydrocodone

C. Add a fentanyl patch for breakthrough pain

D. Increase the dose of hydrocodone and monitor closely

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Question 3

Darlene is a 63-year-old woman with an 18-month history of painful diabetic peripheral neuropathy that has been reasonably well-controlled with pregabalin 300 mg/day, in addition to diet and exercise. Over the past month, however, she has developed worsening pain in her feet while walking. Darlene also reports long-standing anxiety. She admits to using diazepam a few times each week, which she continues to obtain from her sister despite being counseled about safer alternatives. Because of her increased anxiety, she admits she intends to increase her diazepam. Based on Darlene's current presentation, is she a candidate for referral to a pain management specialist for multidisciplinary care?

A. No, referral should be deferred until she has exhausted all other therapies or combinations.

B. No, she should be referred to a mental health provider instead.

C. No, since what she has been doing has been working up until now you should increase her current dosage of pregabalin.

D. Yes, referral is appropriate for both pain management and SUD consultations

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Question 4

Which term best reflects non-stigmatizing, person-first language for individuals receiving care for opioid use disorder (OUD)?

A. Opioid addiction
B. Opioid use disorder
C. Non-compliant
D. Clean urine drug screen

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Thank You!

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