A Dose of Reality: The Pharmacist's Role in Pain Management and Addiction

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Disclosures

- Drs. Barreveld and Matthews do not have any financial conflicts of interest to disclose.

Learning Objectives

- **A case-based approach:**

1. To recognize clinical considerations for initiating opioid therapy in a patient with chronic non-cancer pain.
2. To list best practices and clinical guidelines for opioid risk assessment, prescribing, and monitoring.
3. To advance the role of the pharmacist in ensuring safe opioid therapy and effective interprofessional communication.
4. To identify patients at risk for substance use disorder and how the pharmacist may implement SBIRT (Screening, Brief Intervention, and Referral to Treatment).
5. To identify strategies for opioid weaning and medication disposal.
6. To list non-opioid pharmacological and multi-modal therapies for chronic pain.

Role play and group learning to apply above learning objectives.

Case 1 – Mr. Jensen's knee and back pain

- 52 year-old construction manager with knee and low back pain for many years who presents to his primary care provider (PCP) for help with pain management.
- He has tried multiple non-opioid medications, physical therapy, massage and continues to complain of average 6/10 pain that interferes with his ability to work and be active with his teenage daughter and son.
- He saw a surgeon who did not think he was a candidate for knee replacement or back surgery at this time but that his symptoms were consistent with osteoarthritis (OA).

http://www.arthritisresearchuk.org/arthritis-information/conditions/osteoarthritis-of-the-knee.aspx

Pain in the U.S.

- Pain affects more Americans than diabetes, heart disease and cancer combined.

Condition	Number of Sufferers	Source
Chronic Pain	100 million Americans	Institute of Medicine of The National Academies (2)
Diabetes	25.8 million Americans (diagnosed and estimated undiagnosed)	American Diabetes Association (3)
Coronary Heart Disease (heart attack and chest pain) Stroke	16.3 million Americans 7.0 million Americans	American Heart Association (4)
Cancer	11.9 million Americans	American Cancer Society (5)

http://www.painmed.org/patientcenter/facts_on_pain.aspx#incidence

- Chronic pain → significant detrimental effect on quality of life, work productivity, emotional state, financials, etc.

- Pain should not go untreated

Impact of chronic pain on the brain?

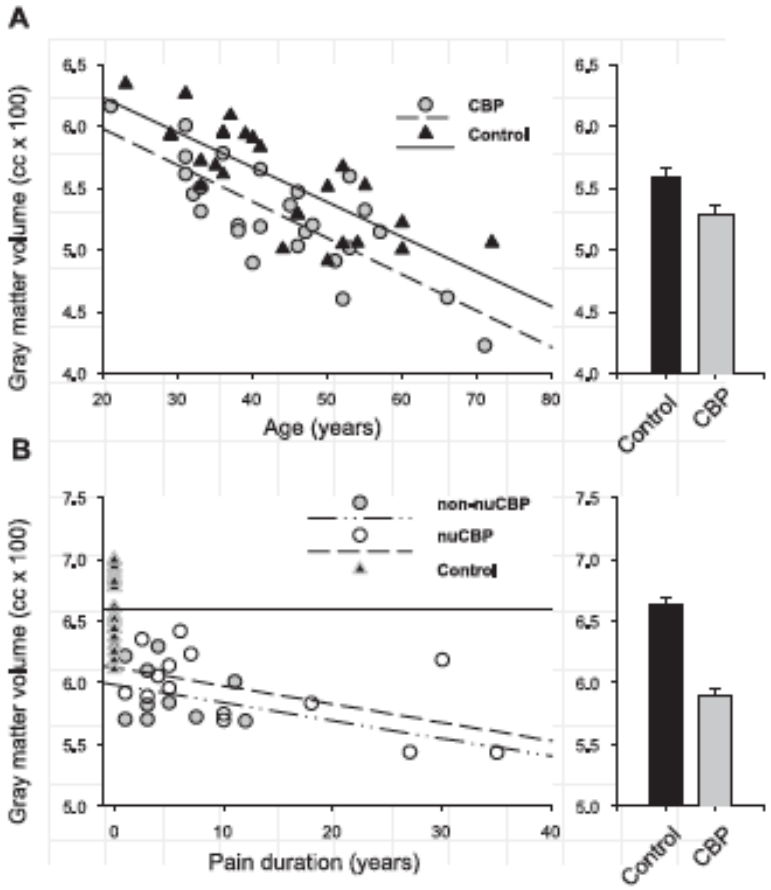

Figure 1. Decreased whole-brain cortical gray matter volume in CBP subjects. Skull-normalized neocortical gray matter volumes are shown for CBP subjects and matched control subjects. *A*, Gray matter volumes as a function of age. The difference in intercepts corresponds to an average decrease of 30 cm^3 in gray matter volume in CBP compared with the normal subjects. *B*, Gray matter volumes as a function of pain duration, after correcting for age and gender. Individual control subjects are shown at pain duration = 0. nuCBP and non-nuCBP CBP patient data are presented separately. The horizontal line is the mean volume for controls. Individual whole-brain gray matter volumes in CBP subjects are all below the mean volume for controls. Group-averaged gray matter volumes (mean ± SEM) are shown in the right bar graph, before (top) and after (bottom) correcting for age and gender. Lines are best linear fits for each group.

Statistically Significant Decreased Grey Matter Density

Apkarian et al. Chronic back pain is associated with decreased prefrontal thalamic and gray matter density. Journal of Neuroscience, 2004

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Mr. Jensen

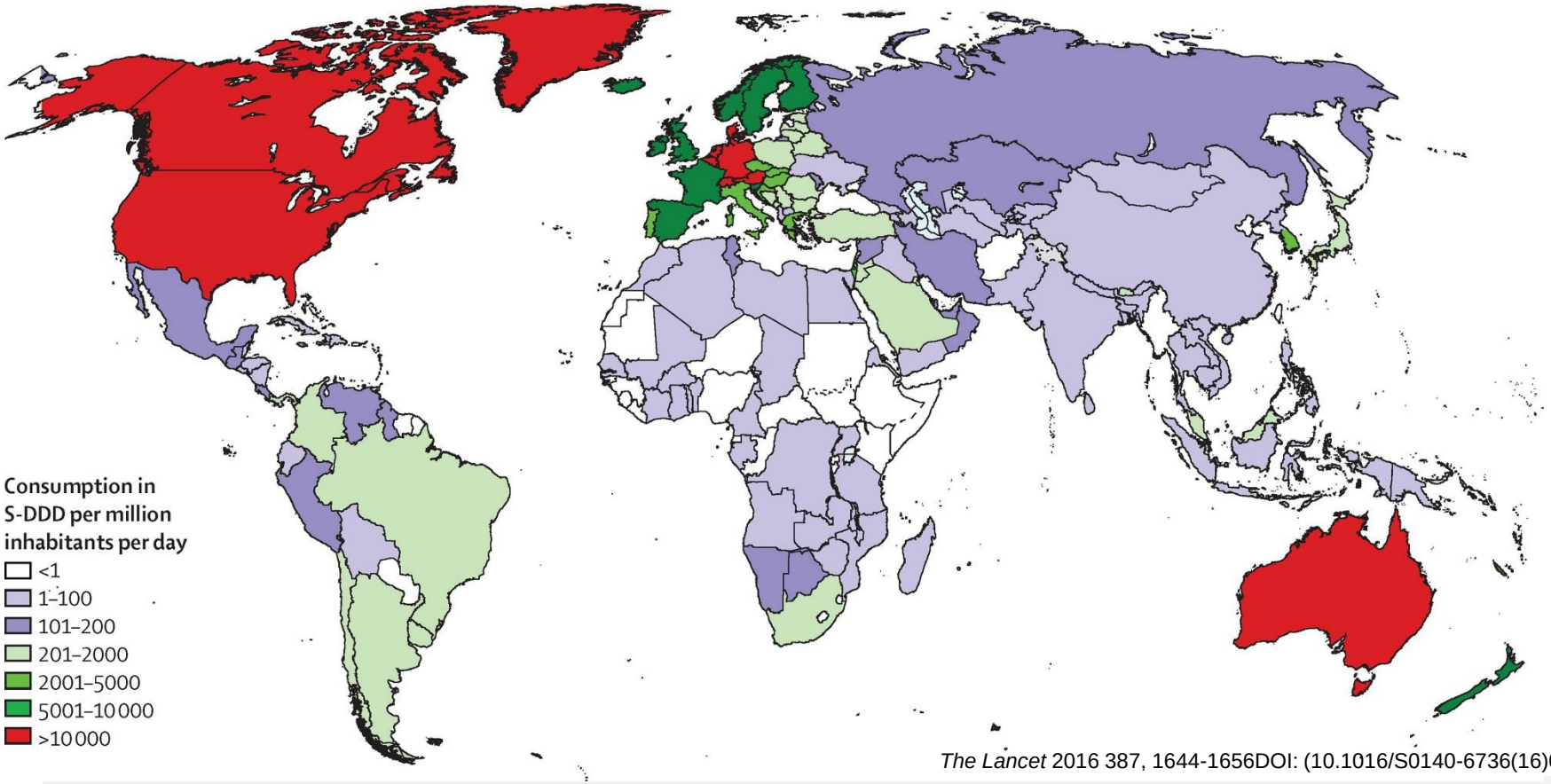
- ***He continues to be limited by pain. His PCP is considering opioid therapy to help with function.***

- **Questions to consider:**
  1. What is the indication for opioid medication in chronic non-cancer pain?
  2. How do you assess risks factors for opioid misuse or abuse?
  3. What guidelines should be followed to help with monitoring and ensuring safety?
  4. What state laws/guidelines does the PCP need to adhere to in Massachusetts?
  5. How should the pharmacist assess the safe and appropriate use of opioids for chronic pain?

Opioid consumption in the U.S.

- Americans, constituting only 4.6% of the world's population, have been consuming 80% of the global opioid supply (Express Scripts 2014 Report)

Mean availability of opioids for pain management in 2011–13



The Lancet 2016 387, 1644-1656DOI: (10.1016/S0140-6736(16)00161-6)

Opioid abuse and misuse risk?

- ***Potential for abuse and misuse is non-debatable***

➢ Across the country, **2.1 million** people suffer from substance use disorders related to prescription opioids, causing **80** deaths daily.*

➢ In 2014, fatal overdoses in Massachusetts were more than **2X** the national average.**

➢ Estimated **1,979** Massachusetts deaths in 2016 were attributable to a fatal dose of heroin or a prescription opioid – nearly **5** people per day statewide. **

➢ **Two out of every three** of these deaths were people under the age of 45 years old.

➢ **One in six** Massachusetts residents received an opioid prescription in 2015. **

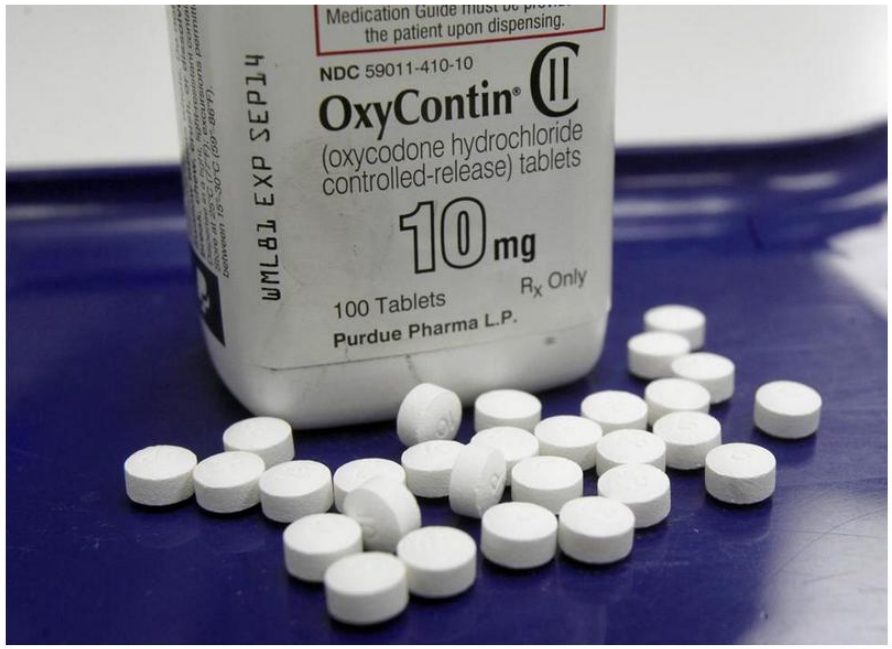
➢ Only **36%** of Massachusetts residents report being warned about the risks of addiction when being prescribed opioids.*

➢**4 out of 5 new heroin users started with a prescription opioid.***

** Per the 2016 Surgeon General's Report: Facing Addiction in America*
***Per the Massachusetts Department of Public Health: www.mass.gov*

Pendulum swing in opioid prescribing

Doctors are cutting opioids, even if it harms patients



TOBY TALBOT/ASSOCIATED PRESS/FILE

Doctors are being more careful with opioid prescriptions as addiction and its effects get more recognition.

By Felice J. Freyer | GLOBE STAFF JANUARY 03, 2017

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"Doctors face myriad pressures as they struggle to treat addiction and chronic pain, two complex conditions in which most physicians receive little training. Those responding to the survey gave two main reasons for cutting back: the risks and hassles involved in prescribing opioids, and a better understanding of the drugs' hazards.

The results also suggest a substantial minority of physicians may believe the pendulum has swung too far, depriving pain patients of needed relief."

What about the 2016 CDC guidelines?

GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN

IMPROVING PRACTICE THROUGH RECOMMENDATIONS

CDC's *Guideline for Prescribing Opioids for Chronic Pain* is intended to improve communication between providers and patients about the risks and benefits of opioid therapy for chronic pain, improve the safety and effectiveness of pain treatment, and reduce the risks associated with long-term opioid therapy, including opioid use disorder and overdose. The Guideline is not intended for patients who are in active cancer treatment, palliative care, or end-of-life care.

DETERMINING WHEN TO INITIATE OR CONTINUE OPIOIDS FOR CHRONIC PAIN

1. Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate.
2. Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how opioid therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.
3. Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

CLINICAL REMINDERS

- Opioids are not first-line or routine therapy for chronic pain
- Establish and measure goals for pain and function
- Discuss benefits and risks and availability of nonopioid therapies with patient

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html

OPIOID SELECTION, DOSAGE, DURATION, FOLLOW-UP, AND DISCONTINUATION

CLINICAL REMINDERS

- Use immediate-release opioids when starting
- Start low and go slow
- When opioids are needed for acute pain, prescribe no more than needed
- Do not prescribe ER/LA opioids for acute pain
- Follow-up and re-evaluate risk of harm; reduce dose or taper and discontinue if needed

4. When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.
5. When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when considering increasing dosage to ≥50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to ≥90 MME/day.
6. Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed.
7. Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation. Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently. If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids.

ASSESSING RISK AND ADDRESSING HARMS OF OPIOID USE

8. Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥50 MME/day), or concurrent benzodiazepine use, are present.
9. Clinicians should review the patient's history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at high risk for overdose. Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months.
10. When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.
11. Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.
12. Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.

CLINICAL REMINDERS

- Evaluate risk factors for opioid-related harms
- Check PDMP for high dosages and prescriptions from other providers
- Use urine drug testing to identify prescribed substances and undisclosed use
- Avoid concurrent benzodiazepine and opioid prescribing
- Arrange treatment for opioid use disorder if needed

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html

To start or not to start opioids, that is the question…

- **STEP-WISE APPROACH for initiating opioids for chronic non-cancer pain:**

1. **Pain assessment and history, pain narrative**
    1. Functional assessment
    2. Patient goals assessment
    3. Non-opioid medications and therapies patient has tried and outcomes
    4. Social and psychological history
    5. Substance abuse history (patient and family members, from alcohol to illicit substances)
2. **Physical exam**
3. **Urine drug screen**
4. **Formal risk assessment tool**
5. **Check MassPAT**
    - Other opioid prescribers/prescriptions?
    - Other controlled substance prescriptions?

Dowell D et al. CDC guideline for prescribing opioids for chronic pain—United States, 2016. JAMA 2016.

Opioid risk for misuse/abuse – screening tools

- **Opioid Risk Tool**
- **Screener and Opioid Assessment for Patients with Pain-Revised (SOAPP-R)**
- **Current Opioid Misuse Measure (COMM)**

Opioid Risk Tool

This tool should be administered to patients upon 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 to 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		

Webster LR, Webster R. Predicting aberrant behaviors in Opioid-treated patients: preliminary validation of the Opioid risk too. Pain Med. 2005; 6 (6) : 432

Our mission is to treat and care for all our patients as we would a beloved family member.

STEP-WISE APPROACH continued

6. **Formulate an informed, educated plan with the patient**
   - If no significant risk factors, can consider opioid therapy (if risk factors or other concerns, may involve specialist, e.g. pain management, behavioral health, etc.)
   - Opioid agreement
     - discuss short-term trial, one pharmacy, no early refills, discontinuing therapy, etc.
     - Educate about risks of opioid therapy, dependence, warning signs of addiction
   - Initiate frequency of follow-up visits, monitoring (e.g. every 1-4 months)
   - Involve patient in discussion of plan and opioid therapy
   - Short-acting opioids only to start, "start low and go slow"
   - Consider co-prescribing naloxone, especially in high-risk patients
     - In almost 2000 San Francisco primary care patients, demonstrated decrease in adverse events for those prescribed naloxone versus those that were not[1]

Dowell D et al. CDC guideline for prescribing opioids for chronic pain—United States, 2016. JAMA 2016.

[1]Coffin PO *et al.* **Nonrandomized Intervention Study of Naloxone Coprescription for Primary Care Patients Receiving Long-Term Opioid Therapy for Pain. Annals Int Med 2016**

Example excerpt of Partners opioid agreement

I understand that my health care provider has decided to try to lessen my pain. This will be done, in part, with the use of controlled substances called Opioids (pain medicines). My provider has explained that these medicines have risks and benefits. I understand that these medicines are only one part of my whole pain treatment plan.

A plan needs to be place for these medicines to be provided safely to me. This plan ensures that I will receive the best possible care for my pain treatment, I understand and agree to the following:

1. My pain medicines are being prescribed for the following condition:_____

   The goal(s) of my treatment is (are): _____

2. I accept that these pain medicines are only one part of my treatment plan. I agree to follow the plans of care that I discussed with my provider.

3. I will receive pain medicines from only my physician (or coverage), and from no one else.

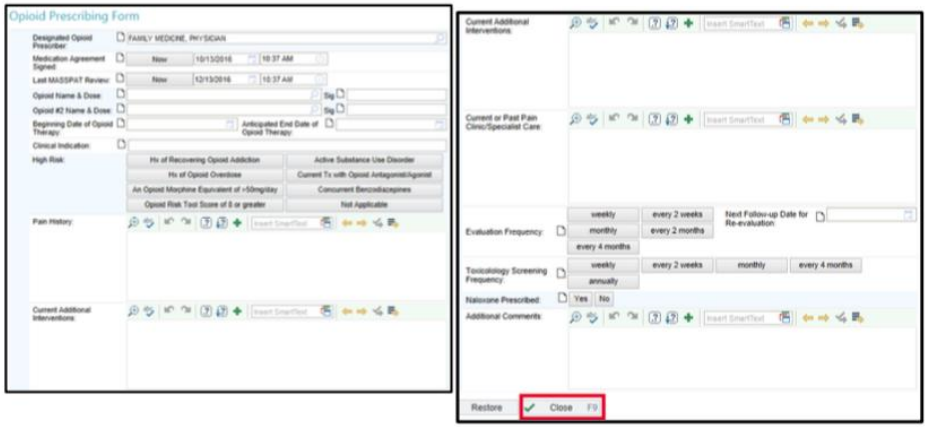
4. If I *do* receive pain medicines from anyone else (such as after surgery, or from an emergency visit for a broken bone, etc.), I will let my provider know about this in person, or in writing, or by phone, **within _____ days.**

5. I understand that pain medicines will be used only as directed for my pain.
   I WILL NOT:
   - ✓ Increase the dose without talking to my provider (this could lead to overdose and death)
   - ✓ Suddenly stop taking these medicines
   - ✓ Use them for **anything** other than for treating my pain
   - ✓ Share, sell or trade them with other people (including family members)
   - ✓ Change my prescription in any way

6. I understand that pain medicines may have side effects. These include drowsiness or difficulty with concentration. Alcohol, illegal drugs, and many medications (prescribed

Massachusetts state law for opioid prescribing

- *Act Relative to Substance Use, Treatment, Education and Prevention*
  - Passed unanimously in 2016 – aims to curb excess opioid prescriptions into the public, assist in screening for substance use disorder (SUD), and improve education regarding opioids and SUD
- **How does the law apply to Mr. Jensen?**
  - **Acute prescription limited to 7 days**
  - **"Partial fill" on prescription**
  - **Consult MassPAT with each prescription**
- Implications for the PCP?
  - Thorough evaluation of appropriateness of therapy, discussion of risks
  - Time…
    - Delegates
    - Documentation tools
      - E.g. Partners Healthcare "smartform"
    - Automated prompts



Monitoring parameters for opioid efficacy and safety

- **A**nalgesia
- **A**dverse effects
- **A**ctivities of daily living
- **A**berrant behaviors
  - Addiction Behaviors Checklist, COMM, UDTs, pill counts
- **A**ffect
- **A**djuvants
- **A**dherence
- **A**ccess to treatment

The pharmacist's checklist for safe opioid use

1. Assess for red flags

- Forged prescriptions (e.g. lack of common abbreviations or overly legible handwriting)
- Prescriptions originating from outside the immediate geographic area
- Altered prescriptions (e.g. multiple ink colors or handwriting styles)
- Cash payments
- Inconsistent or early fills
- Multiple prescribers
- Dispensing of prescription drug combinations often used as "cocktails"
- Prescribers who write for the same drug, dose, quantity for all patients
- Patients traveling in groups to the pharmacy
- Patient appears impaired, intoxicated, or in withdrawal

The pharmacist's checklist for safe opioid use (cont'd)

2. Verify the prescription using available tools

3. Communicate with the patient and prescriber when there are questions or concerns

- Communicating with patients
  - Ask permission to discuss treatment
  - Use open-ended questions
  - Use reflective statements to demonstrate active listening
  - Avoid judgmental language
- Communicating with prescribers
  - Summarize concerns in a clear and concise manner
  - Provide recommendations if necessary
  - If refusing to fill the prescription, provide a clear explanation and plan of action
  - Document details of conversation as appropriate

Summary for Mr. Jensen

- Conduct ORT screen – low risk
- Opioids might be a useful tool to help him be productive and stay active
- Short-term trial, opioid agreement
- What opioid to consider is not straight-forward
- Counsel on risks, consider naloxone co-prescription
- Initiate monitoring plan
  - MassPAT with every prescription
  - Regular UDS (q6-12 months or more frequently)
  - Regular follow-up visits to monitor progress, side effects, risks, etc. (visits maximum q90-120 days)

Case 2 – Ms. Sampson's early refills

- **39 year old woman with insulin-dependent type I diabetes mellitus and chronic peripheral neuropathic pain in her feet and legs managed with oxycodone 5 mg po q4-6 hours (takes approximately 30 mg/day) and gabapentin 600 mg 3x/day.**
- **She has been presenting for early refills over the past few months of both prescriptions – 28-day prescription refilled on average every 23-26 days.**
- **You are concerned that she might be misusing or abusing her medications or is using additional non-prescribed medications based on her behaviors, occasional somnolence, and early refills**

Questions to consider for the pharmacist

- How do you best communicate your concerns to the patient?
- How do you best communicate your concerns to the prescriber?
- What can you do about the aberrant behavior?
- How can you implement the SBIRT (screening, brief intervention, referral, and treatment) process?
- How can you refer for substance use disorder (SUD) treatment?

What to say to Ms. Sampson when she returns?

- Confirm your concern with the patient's responses to screening questions.
- Ask patient's view of the situation.
- Discuss their personal responsibility for health effects and other consequences of nonadherence.
- Provide the patient with non-judgmental advice and discuss benefits of treatment/behavior change.
- Mention treatment options when appropriate and gauge patient's reaction.
- Encourage and support the patient.
- Provide patient education and resources.

What will you tell her prescriber? How?

- Summarize concerns in a clear and concise manner
  - Pattern of early refills
  - Patient behavior
  - Occasional somnolence
- Recommend plan of action
  - Consider voiding gabapentin refills until patient is reassessed
  - Reduce days supply
  - Increase frequency of monitoring
  - Reconsider current treatment approach

Is there something you can DO?

Common Signs and Symptoms of Substance Use Problems

	SYMPTOMS
PHYSICAL	Headaches, sleep disorders, sexual dysfunction, gastrointestinal problems, liver disease, respiratory problems (sinusitis for snorted drugs, cough for smoked drugs), pupils dilated or constricted
BEHAVIORAL	Agitation, anxiety, anger, irritability, depression, mood swings, unusually fast or slow movements
FAMILY	Marital problems (including separation and divorce), abuse or violence, family members' anxiety and depression, behavioral problems among their children
SOCIAL	Loss of long-standing friendships, spending time with other individuals with substance use problems, social isolation, loss of interest in regular activities
WORK or SCHOOL	Missing work or school, poor performance, frequent job changes or relocations
LEGAL	Arrests, DUIs, theft, drug dealing
FINANCIAL	Large recent debt, borrowing money from friends/relatives, selling possessions (presumably for drug money)

Opioid Use Disorder – DSM-5

At least two of the following symptoms within a 12-month period:

- Taking more opioid than intended
- Wanting or trying to control opioid use without success
- Spending a lot of time obtaining, taking, or recovering from opioid effects
- Cravings
- Failing to carry out important tasks at home/work/school
- Continued opioid use despite relationship/social problems
- Giving up or reducing activities due to opioid use
- Using opioids even when physically unsafe
- Continues use despite awareness of harms
- Tolerance
- Withdrawal symptoms

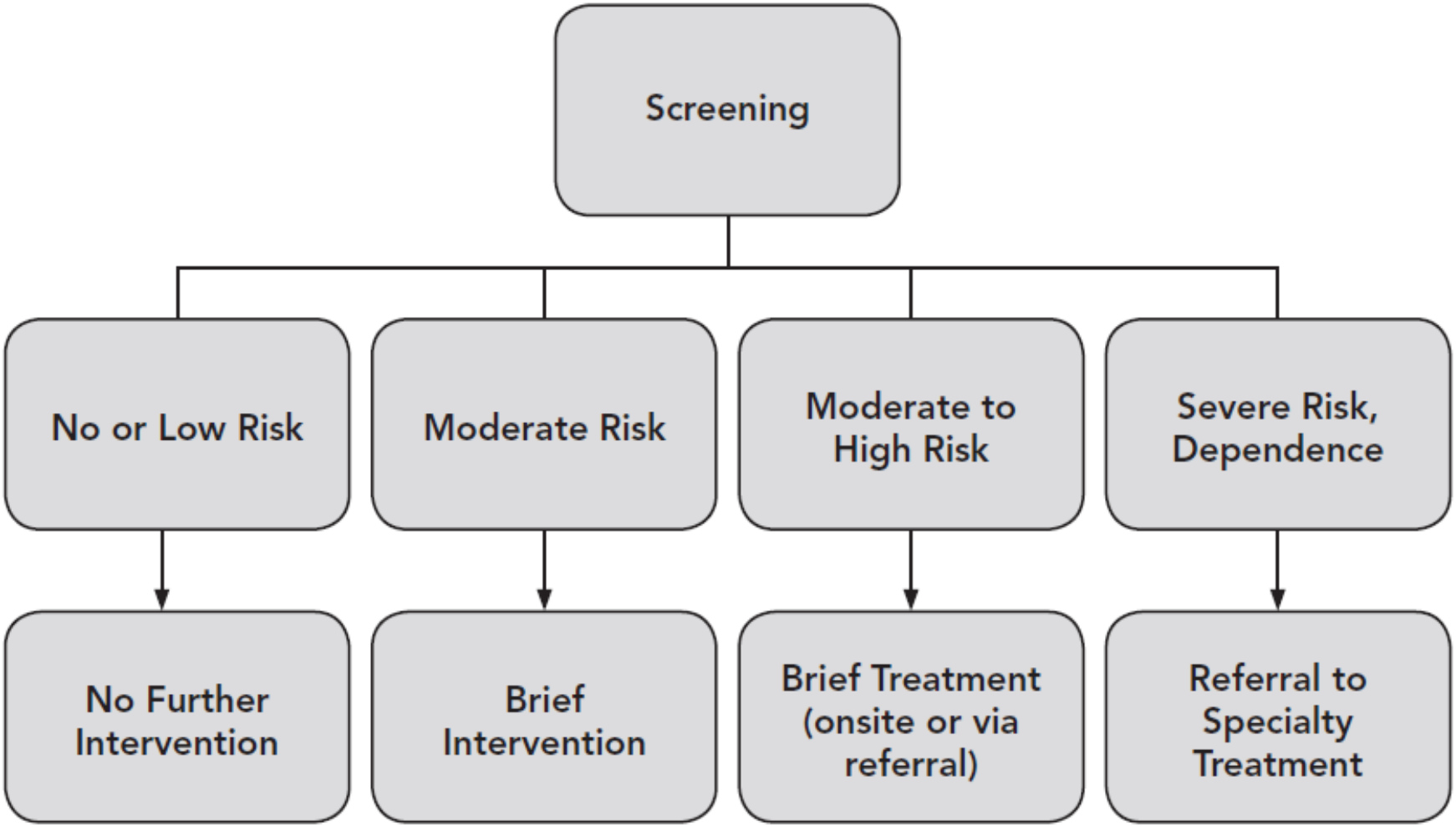
American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Arlington, VA: American Psychiatric Publishing.

SBIRT

- **Screening (S)** identifies unhealthy use
  - 75-85% of patients will screen negative
  - For those who screen positive, further assessment is needed to determine level of risk
- **Brief Intervention (BI)** provides feedback about unhealthy substance use
  - Focuses on education, increasing patient insight and awareness about risks related to unhealthy substance use, and enhances motivation toward healthy behavioral change
- **Referral** to **Treatment (RT)** helps facilitate access to addiction assessment and treatment
  - A referral is usually indicated for only about 5% of people screened

US Preventive Services Task Force. Screening and behavioral counseling interventions in primary care to reduce alcohol misuse: Recommendation statement. *Ann Intern Med*. 2004; 140(7): 554-556.

SBIRT Process



Referral for Treatment for SUD

WHEN?

- A brief intervention is not adequate treatment, or has been tried and has not been sufficient.
- Patients with severe substance use disorder
- Comorbid mental health disorders, low cognitive ability, or are on opioid therapy for chronic pain
- Multiple or complicated medical conditions
- Past history of substance use disorder
- Polysubstance use disorder

HOW?

- Substance Abuse and Mental Health Services Administration (SAMHSA) treatment locator (https://findtreatment.samhsa.gov/) or mobile app
- Massachusetts Substance Abuse Information and Education Helpline (800-327-5050)

Summary for Ms. Sampson

- Communicate with patient and prescriber to determine if current clinical presentation represents ineffective pain management vs. aberrant behaviors
- Reassess current treatment approach
  - Initiate rapid taper of oxycodone and gabapentin in setting of SUD
  - Provide referral for treatment
  - Utilize nonpharmacologic and nonopioid analgesics (with minimal abuse liability)
  - Reinforce importance of diabetes management to prevent further progression of neuropathic pain

Case 3 – Mrs. Eggers' postoperative nerve pain

- **Mrs. Eggers is a 62 year-old female who underwent hysterectomy and prolapse repair 2 years ago and unfortunately suffers from chronic nerve pain in her perineum and lower pelvis from the surgical mesh. Light touch to her abdomen is very sensitive and uncomfortable. Surgical revision did not relieve her pain.**
- **Her pain medications include gabapentin 300 mg 3x/day and morphine 90 mg/day (morphine SR 30 mg BID and morphine IR 15 mg q6h).**
- **The morphine is no longer helping her and she is severely constipated which worsens her pain. The gabapentin is maybe helping but she did not tolerate higher doses, felt "out of it".**
- **Her anxiety level has been high and she is angry and sad about her surgical outcome and struggles with daily functioning. She had to retire early because she could no longer sit at her desk job or concentrate. She sleeps poorly. Her life has changed drastically since before the surgery.**

Case 3 – Mrs. Eggers' postoperative pain

- **She asks you for help with:**
  - **Weaning her morphine and what to do with the left-over medication**
  - **Non-opioid medication alternatives**
  - **Multimodal non-medication options**

Opioid weaning principles

Tapering plans should be individualized and should minimize symptoms of opioid withdrawal while maximizing pain treatment with nonpharmacologic therapies and nonopioid medications.

- Go Slow!
  - A decrease of 10% of the original dose per week is a reasonable starting point.
    - Some patients who have taken opioids for a long time might find even slower tapers (e.g., 10% per month) easier.
- Consider risk factors when tapering
  - Unstable heart disease, pregnancy
- Monitor for behavioral changes, behaviors concerning for SUD
- Provide encouragement and support

https://www.cdc.gov/drugoverdose/pdf/clinical_pocket_guide_tapering-a.pdf

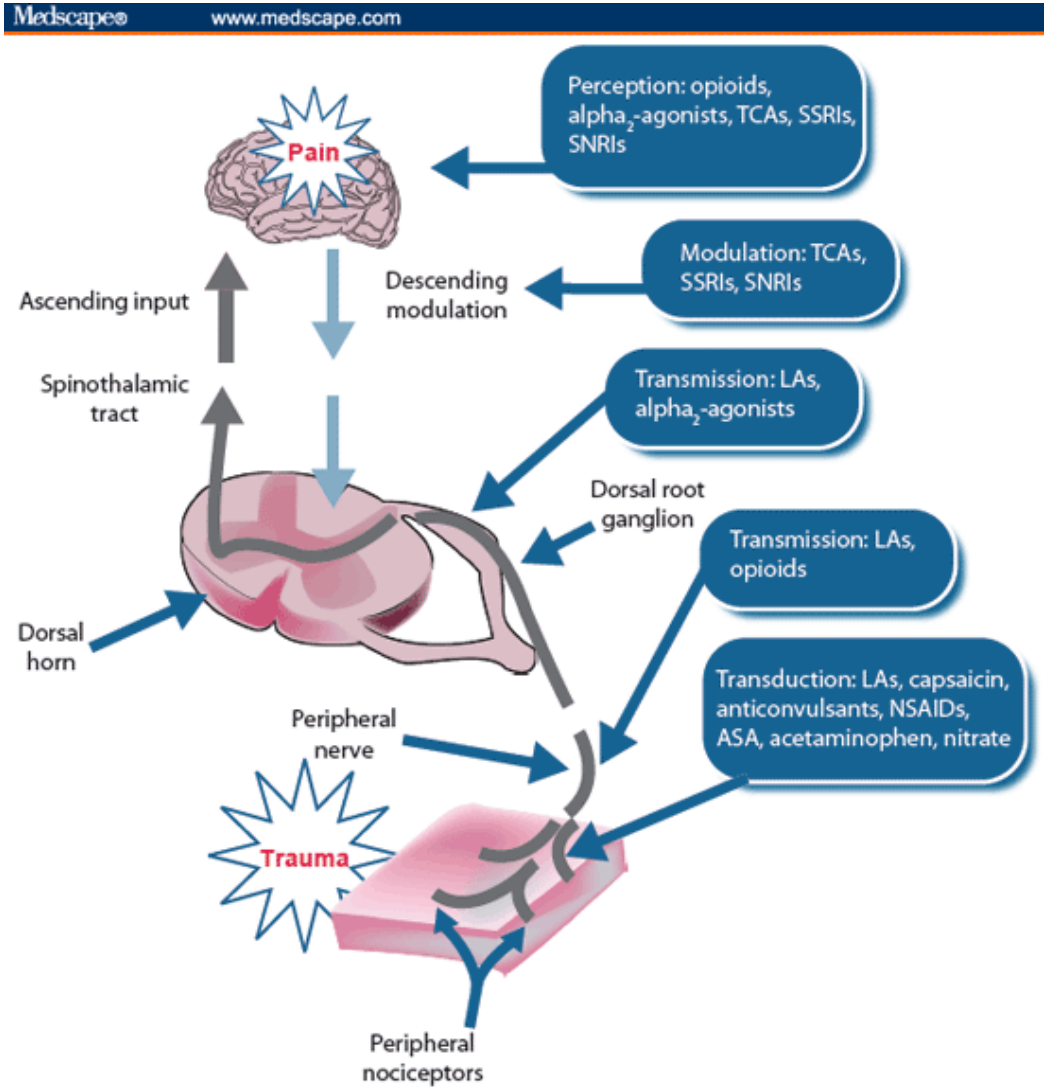
Safe disposal

- Drug take-back programs
  - https://www.deadiversion.usdoj.gov/drug_disposal/
  - http://disposemymeds.org/

- To flush or not to flush…

http://www.brooklynvegan.com/img/as/fish-stoned.jpg

Non-opioid medication alternatives?



Medication Targets for Neuropathic, Centralized Pain

Non-opioid medication alternatives?

- **Other neuropathic agents?**
  - **Consider replacing gabapentin with a different class of neuropathic agent; pregabalin may have similar side effects**
  - **Tricyclic antidepressants**
    - **Can be very helpful at lower doses but side effects may be limiting and mood effects less pronounced at lower doses used in pain**
    - **Caution with drug-drug interactions**
  - **SNRI**
    - **E.g. duloxetine, added benefit: may help with anxiety symptoms**
    - **Caution with drug-drug interactions, mood alterations, weight-gain**
- **Muscle relaxants?**
  - **Oral muscle relaxants might help with spasm-component of pain**
    - **E.g. tizanidine, baclofen, cyclobenzaprine**
    - **Drawback: sedation, other systemic effects**
- **NSAIDs? Acetaminophen?**
- **Suppositories? Topical agents?**
  - **Compounded medications in suppository form may help with internal pain or pelvic floor muscle spasm pain but cost can be prohibitive**
  - **Can also try diazepam (caution with systemic uptake/dependence) or baclofen *tablet* inserted per vagina**
  - **If + external allodynia or hyperalgesia, topical agents might be helpful e.g. topical lidocaine ointment 5%**

Behavioral therapy

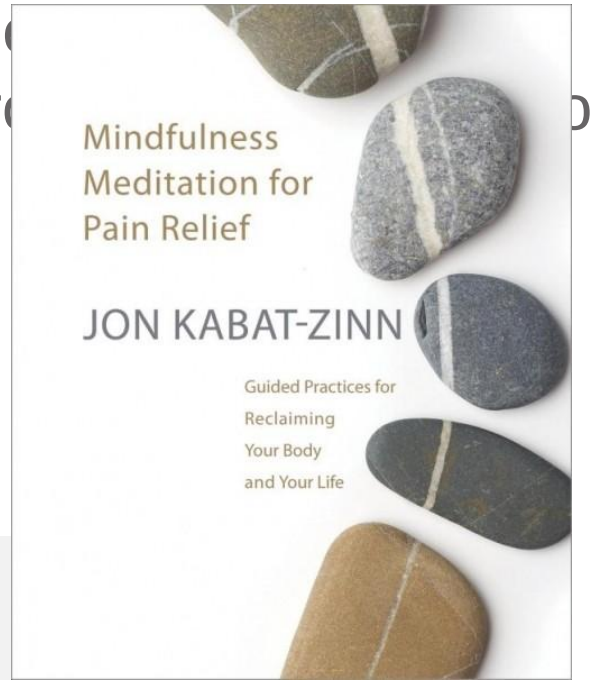
- *Medication and interventional therapies alone will not treat pain*

- Emotional inputs are intimately linked to pain behaviors and experience

Anxiety/fear about pain ←→ pain symptoms

- Cognitive behavioral therapy (CBT) – (mechanisms, meditation, living with chr on, stress reduction

- Pain psychologists available?



Does meditation work?

YES!

Meditation helps to separate the sensation of pain from the thoughts about pain.

Functional Magnetic Resonance Imaging (fMRI) can identify areas in the brain that influence a patient's pain perception. This 2011 study demonstrated that after four-days of mindfulness meditation training, meditating in the presence of noxious (painful) stimulation significantly reduced pain-unpleasantness by 57% and pain-intensity ratings by 40% when compared to rest. fMRI images further illustrate how meditation deactivates pain signaling and activates pain modulating centers in the brain that help to decrease pain.

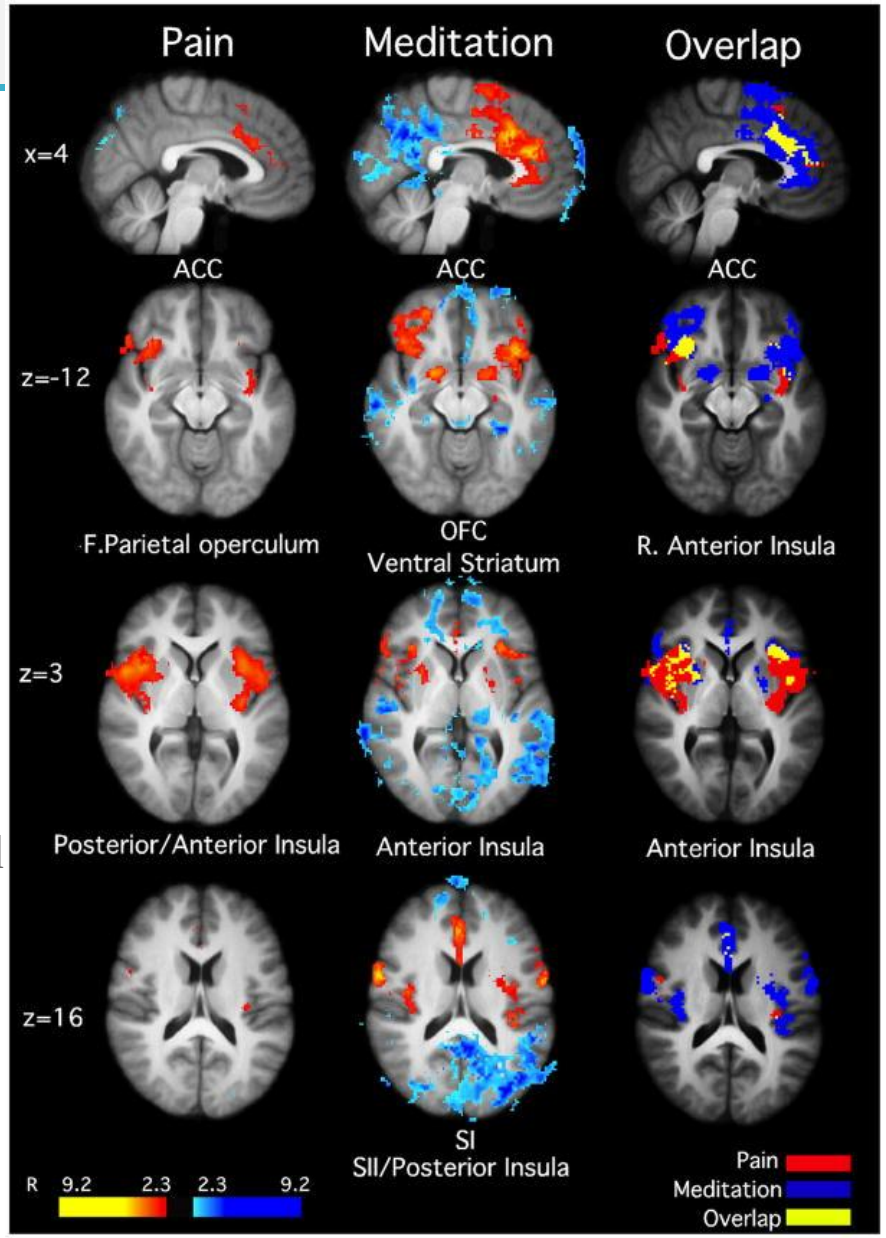
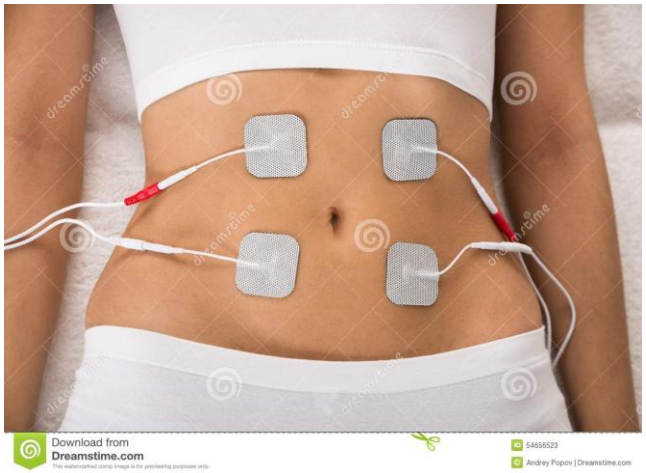


Image (Figure 4 from Zeidan F *et al.* 2011) reproduced with written permission from Dr. Fadel Zeidan, Wake Forrest School of Medicine

Zeidan F,*et al.* J Neurosci. 2011; 31(14):5540-8.

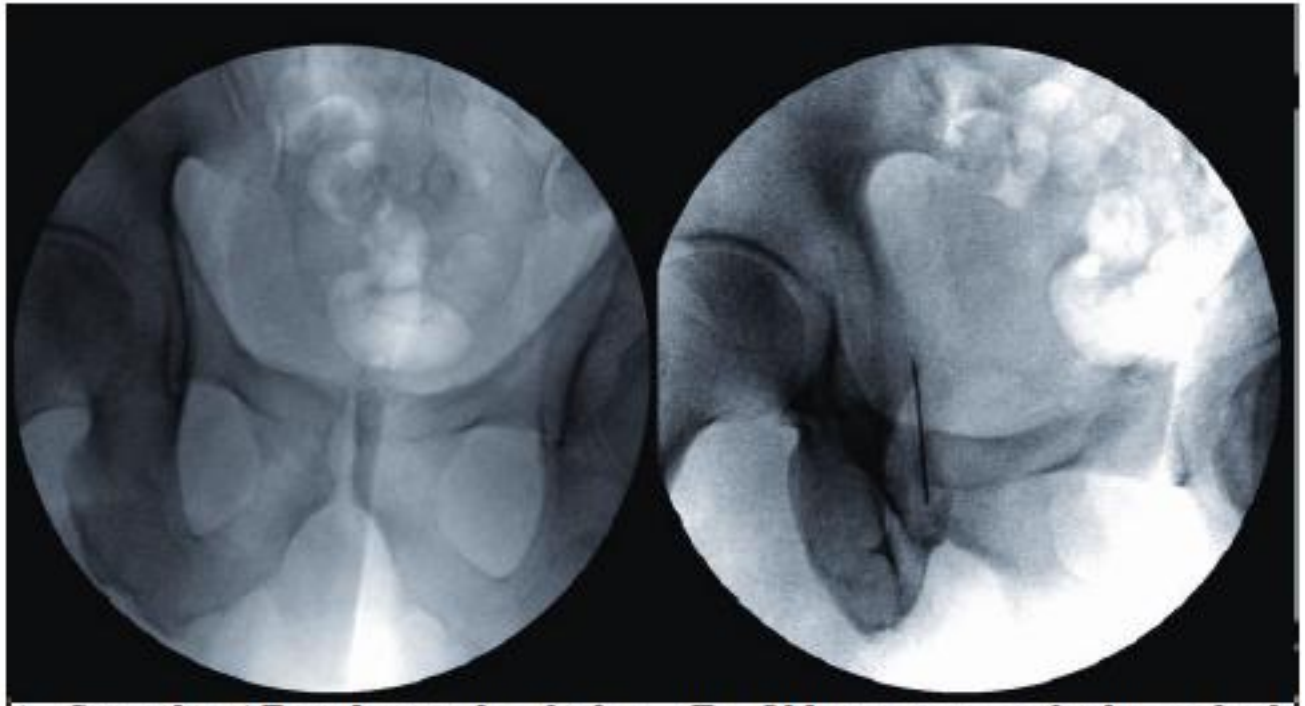
Physical therapy (PT)

- **Pelvic floor PT**
  - Requires experienced, specially trained PT
  - Internal and external soft tissue mobilization and therapeutic exercise
  - Pelvic floor retraining with biofeedback
  - Patient education
  - Emotional support
- **TENS unit**



Interventional management

- **Injection therapies (nerve blocks) may be helpful adjunct (e.g. pudendal nerve block or abdominal nerve blocks)**



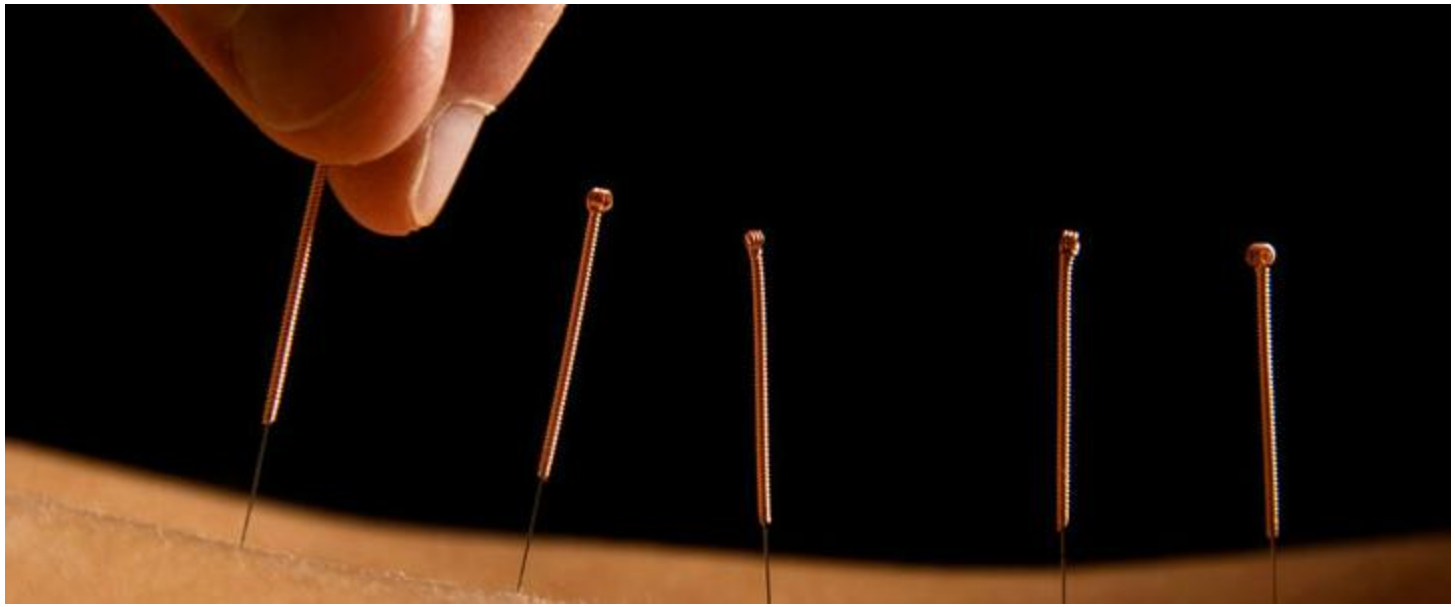
A. Straight AP radiograph of the pelvic bones.

B. Oblique view of the ischial spine. Note that the tip of the needle is at the falciform process of the ischial bone.

Abdi et al. Pain Physician 2004

Multimodal pain management options

- **Other therapies to consider:**
  - **Cushions**
  - **Acupuncture**
  - **Anti-inflammatory diets**
  - **Lifestyle modifications, exercise**
  - **Healthy sleep habits**



Summary: Mrs. Eggers' nerve pain

- **Slow wean of opioids will help with compliance and minimize side effects**
- **Ensure safe disposal of left-over opioids**
- **Consider wean of gabapentin and replace with other neuropathic agent e.g. duloxetine**
- **Consider other non-opioid options e.g. muscle relaxants or topicals**
- **Encourage she explore non-medication options:**
  - **Cognitive behavioral and meditation strategies**
  - **Pelvic floor physical therapy**
  - **Interventional therapies**
  - **Diet and lifestyle modifications**
  - **Other alternative treatments, e.g. acupuncture**

Questions before our final case?

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Case 4 – Mr. Dalton

- **40 year-old graduate physician assistant student at MCPHS University with history of chronic neck and migraine headache pain that developed after multiple sports injuries when he played on his college rugby team.**
- **He has been taking topiramate 100 mg/day for headache prophylaxis, oxycodone 15-20 mg/day for neck pain.**

Mr. Dalton (cont'd)

- **You have noted prescriptions from multiple providers when checking MassPAT**
- **You're not sure if he is misusing or abusing his medications but are getting a bad feeling – something isn't right.**
- ***What are you going to do?***

ROLE PLAY!

- **Identify nearby discussion and role play partner**

- **Together, devise a plan for how to (15 minutes):**
  1. **Communicate with prescribers**
  2. **Raise concerns with Mr. Dalton (SBIRT)**
  3. **Advise on non-opioid medication options he might pursue**
  4. **Advise on multimodal non-medication options he might pursue**

- **Role play (15 minutes):**
  1. **Pharmacist speaking with provider by telephone**
  2. **Switch! Pharmacist speaking with Mr. Dalton**

- **Role play by Dr. Berkowitz, Dr. Barreveld and Dr. Matthews**

Conclusions for the pharmacist

- Chronic pain management can be complex and complicated, and with the rise of opioid abuse, an interprofessional approach is warranted
- Improving communication across disciplines and health care settings can ensure safe and appropriate use of analgesic therapy
- Pharmacists working in all health settings should be competent in SBIRT as well as in factors/behaviors consistent with opioid use disorders

Thank you!

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Our mission is to treat and care for all our patients and their families as we would a beloved family member.

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