Restarting from Scratch:
Beginner's Guide to Pain Management and Communication without Stigma

Rebecca Andrews, MS, MD, FACP
Professor of Medicine
UConn Health

Jennifer Ozimek, MD
Assistant Professor of Medicine
UConn Health

Kevin Chamberlin, PharmD, FASCP
University Director of Pharmacy
Residency Programs
UConn Health

Learning Objectives

Participants will be (able to):

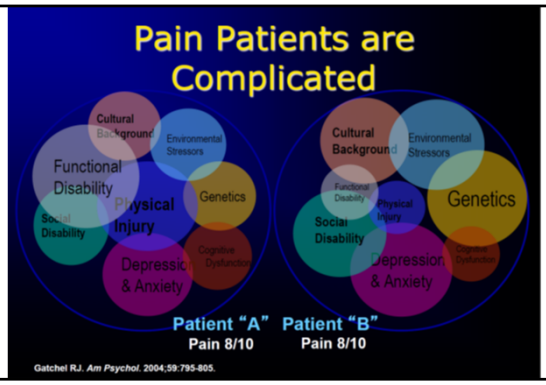
1. Improve their knowledge base in the assessment and management of patients with chronic pain
2. Gain greater mastery in effective communication frameworks
3. Improve their understanding of different mechanisms behind pain to help guide management

The Frustration that is Chronic Pain

- Estimated 1 in 3 adults (116 million) suffer from chronic pain
  - > heart disease + cancer + diabetes
- Economic burden of $635 billion annually

- While ***acute pain is adaptive*** and helps prevent injury or minimize harm
- ***Chronic pain is maladaptive*** – involving pain signaling pathways as well as other factors such as genetics
  - Re-wiring of nerve circuits so that pain continues long after original insult abates
  - Chronic pain is associated with a higher risk of fatal and non-fatal suicide attempts

Roehr B. BMJ. 2011;343:d4206.



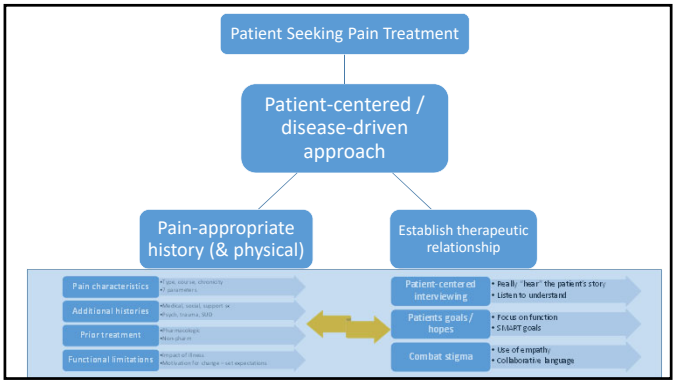
An Education Issue: prescribers & patients alike

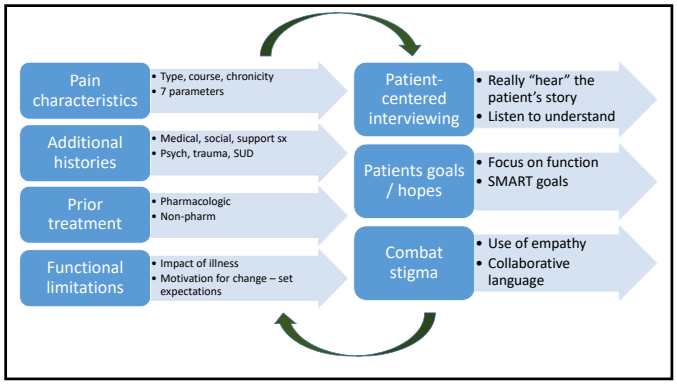
01
30% of US and Canadian medical schools provide 6 or fewer hours over 4 years of training in pain management and opioid prescribing

02
50-80% of graduating physicians report feeling unprepared to manage pain

03
Patient and prescriber expectations surrounding pain relief

J Grad Med Educ. 2010 Jun;2(2):260–68.
Am J of Med Sci, 2007;333(2):93-100.





Pathophysiology of Pain

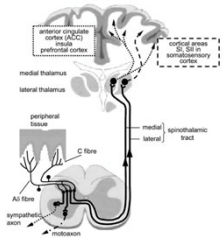


Fig. 1 Scheme of the nociceptive system with nociceptive free nerve endings in the peripheral tissue, afferent nerve fibres and their synapses in the dorsal horn of the spinal cord. From there the medial and lateral spinothalamic tracts ascend to the medial and lateral thalamus, and interneurons project into motor and sympathetic reflex pathways

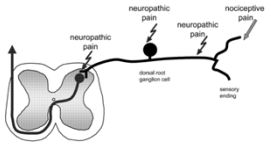


Fig. 2 Sketch of a nociceptive afferent with its synapse in the dorsal horn of the spinal cord. Noxious stimulation of the nociceptor at its sensory ending causes nociceptive pain. Pathological stimulation of the axon, the dorsal root ganglion or of neurons in the central nervous system causes neuropathic pain

Schaible Hans-Georg and Frank Richter. Pathophysiology of pain. Langebecks Arch Surg (2004) 389:237-243.

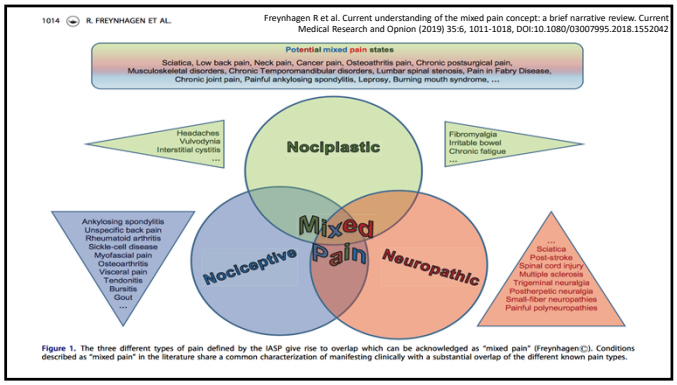
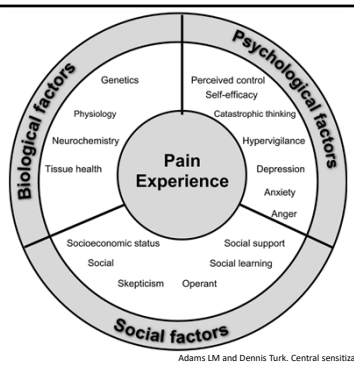


Figure 1. The three different types of pain defined by the IASP give rise to overlap which can be acknowledged as "mixed pain" (Freynhagen©). Conditions described as "mixed pain" in the literature share a common characterization of manifesting clinically with a substantial overlap of the different known pain types.

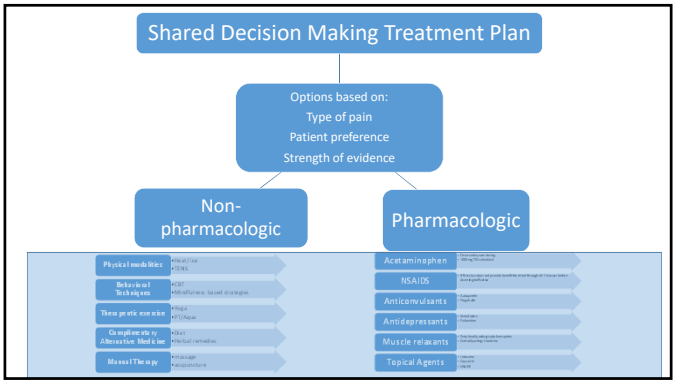


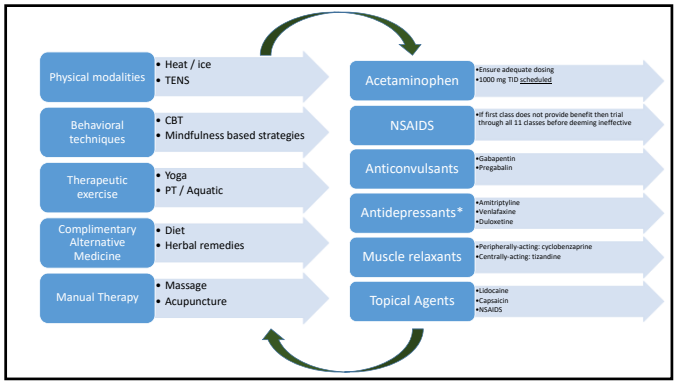
Adams LM and Dennis Turk. Central sensitization and the biopsychosocial approach to understanding pain. J Applied Biobehavioral Research. 2018;23(2).

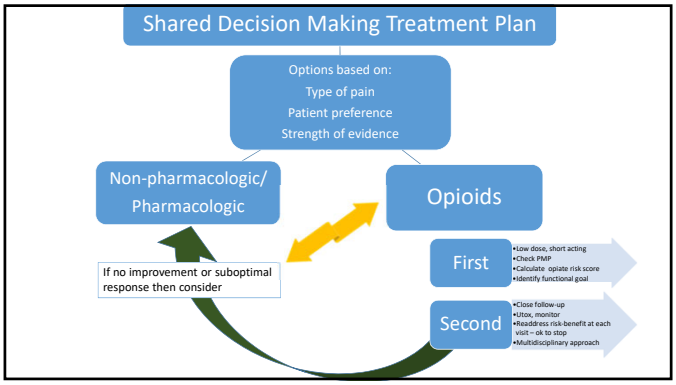
- **Chronic pain patients often present with co-morbid depression**
  - **40-60% of patients with chronic pain, also suffer from depression**
    - **'Pain–depression dyad'**
  - **Serotonin and norepinephrine implicated in both conditions**
- **It is established in clinical literature that opioids can effectively treat mood disorders and anxiety**

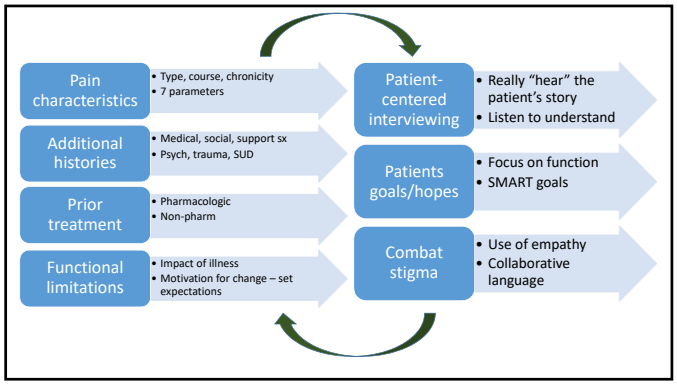
- **Long-term opioids can lead to depression**
- **Withdrawal syndrome from opioids include: mood swings, significant anxiety**
- **Therapeutic tapers off opioids also causes anxiety of two kinds:**
  1. **Rebound anxiety**
  2. **Anticipatory anxiety about the possibility of withdrawal symptoms and loss of the opioid**

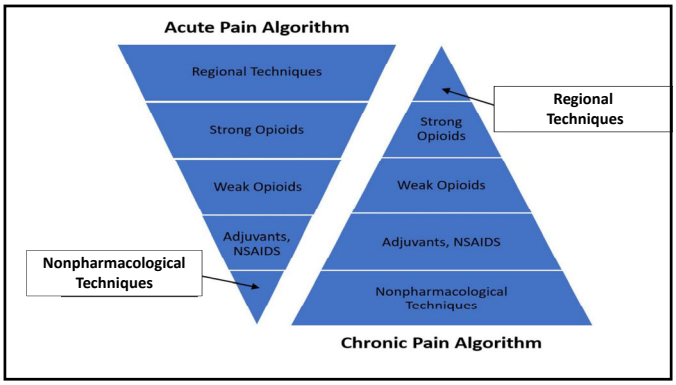
Davis MP, et al. Ann Palliat Med. 2020;9(2):586.

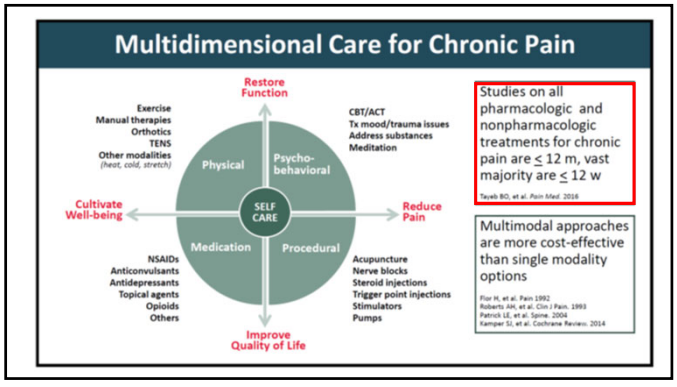












Treatment approach

Myths Contributing to Overprescribing of Opioids

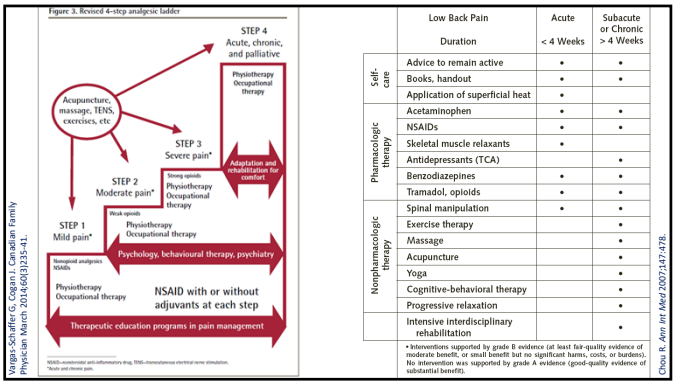
Myth	Reality	Translation into Practice
Opioids are uniquely powerful meds for pain control	Little evidence that opioids are superior to nonopioids	Opioids are simply an additional, noninferior, option when other therapies are ineffective or contraindicated
Opioids are particularly effective for acute pain	Randomized trials have found no advantage over NSAIDs for multiple types of acute pain	Even for common, acute painful conditions, opioids do not provide superior pain control as compared to other options
Short courses of opioids carry neglible risk of long-term use or opioid use disorder	Any opioid prescription is associated with meaningfully elevated risk of long-term use or OUD	For any opioid prescription, patients should be educated about the potential risk of dependence or OUD

N Engl J Med 2020; 382:1086-88.

Beliefs Driving Underprescribing of Opioids

Myth	Reality	Translation into Practice
Long-term opioid therapy has no role in treating chronic pain	Many therapies for chronic pain offer modest benefit at best. Opioid therapy remains one option for select patients among many often ineffective alternatives.	Opioid therapy for chronic pain is not forbidden, but should be judiciously used as part of a comprehensive pain management strategy.
The side effect profile of opioids poses unacceptable risks	All therapies have side effects. The choice to use opioids is a risk/benefit analysis of these ADEs together with the patient.	Opioids are rarely absolutely contraindicated. If the patient remains in pain despite other therapies, opioids should be tried and continued if deemed necessary.

N Engl J Med 2020; 382:1086-88



Vargas-Schaffer G, Cogan I. Canadian Family Physician. March 2014;60(3)235-41.

	Low Back Pain Duration	Acute < 4 Weeks	Subacute or Chronic > 4 Weeks
Self-care	Advice to remain active	•	•
	Books, handout	•	•
	Application of superficial heat	•	
Pharmacologic therapy	Acetaminophen	•	•
	NSAIDs	•	•
	Skeletal muscle relaxants	•	
	Antidepressants (TCA)		•
	Benzodiazepines	•	•
	Tramadol, opioids	•	•
Nonpharmacologic therapy	Spinal manipulation	•	•
	Exercise therapy		•
	Massage		•
	Acupuncture		•
	Yoga		•
	Cognitive-behavioral therapy		•
	Progressive relaxation		•
	Intensive interdisciplinary rehabilitation		•

• Interventions supported by grade B evidence (at least fair-quality evidence of moderate benefit, or small benefit but no significant harms, costs, or burdens). No intervention was supported by grade A evidence (good-quality evidence of substantial benefit).

Chou R. *Ann Int Med* 2007;147:478.

Putting it in Perspective

- Chronic pain is common
- Pain is complex w psychosocial modifiers
- Be aware of bias
- Psychiatric co-morbidities are common
- Make every attempt to qualify the type of pain
- Treat accordingly…more isn't necessarily better

- Significant barriers exist:
  - Attitudes & disparities
  - Financial challenges
  - Cost of team-based care / specialty clinics
  - Many competing priorities in episodes of care

Why Are Difficult Conversations Avoided?

Patient Characteristics Associated With Being Labelled "Challenging"

- Older
- More often separated or divorced
- More women
- More acute and chronic problems
- More medications
- More x-rays and tests
- Were referred more often
- More visits
- More symptoms
- Greater functional impairment
- More likely to have a mental disorder
- More likely to abuse drugs, alcohol

Physician Characteristics Associated With Experiencing More Patients As "Challenging"

- Fewer years out of residency
- Higher perceived workload
- Lower job satisfaction
- Lack of communication skills training
- Unrecognized feelings
- Biomedical orientation
  - Physicians with poorer psychosocial attitudes experienced more encounters as difficult (28% vs. 8%; p<0.001)

Jackson JL, Kroenke K. Arch Intern Med. 1999;159:1069-75.

THE PATH TO RESPONDING WITHOUT BEING CAPTIVE BY EMOTIONS

Believing you are responsible for the feelings of others

Being angry/aggravated

Realizing you don't want the effort of being responsible

Responding with compassion

No guilt; no anger

But taking responsibility for your own actions and feelings

Techniques

1. "The 5 Stages": modified stages of grief

- Hopeless and helpless
- Demanding and indignant
- Bargaining
- Resignation
- Acceptance

2. NURS: empathically address emotion

Name
Understand
Respect
Support

From Fortin AH VI, Dwamena FC, Frankel RM, Smith RC. Smith's Patient Centered Interviewing. 3rd ed. New York, McGraw-Hill, 2012.

3. Communicate information clearly: Ask, Tell, Ask

Ask for patient's perspective

Tell/Teach your perspective

Ask for patient's understanding

4. ADOBE: being effective in the face of strong emotion

Recognize and Assess the Source of Tension, then:

Acknowledge the Difficulty

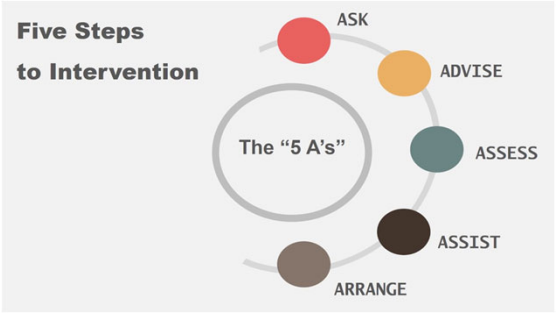
Discover Meaning

Opportunity for Empathy

Boundary-setting

Extend the System

Modified from Kemp White M, Keller V. JCOM.1998;5:5.



www.youtube.com/watch?v=jMk-d_8uypo
Accessed: Mar 1, 2021

5. 5-A's Behavioral Change Model Adapted: improve empathic listening

Table 2. Five A's for Dealing with Hostile Patients

1. Acknowledge the problem.
2. Allow the patient to vent uninterrupted in a private place.
3. Agree on what the problem is.
4. Affirm what can be done.
5. Assure follow-through.

Wasan AD et al. Reg Anesth and Pain Med. 30:184, 2005

6. Non-Violent Communication: 3 components

SELF-EMPATHY – YOUR DEEP AND COMPASSIONATE AWARENESS OF YOUR INNER EXPERIENCE

EMPATHY – YOUR ABILITY TO LISTEN TO ANOTHER PERSON WITH DEEP COMPASSION

HONEST SELF-EXPRESSION – YOUR ABILITY TO EXPRESS YOURSELF TRUTHFULLY IN A MANNER THAT CAN INSPIRE COMPASSION IN OTHERS.

The 4 Steps

Observe	State	Connect	Make
Observe objectively • Objective facts a mutual talking point • Observe without evaluating, blaming or judging • Use your senses (sight, hearing, touch, taste, smell)	State how the observation is making you feel	Connect with a need • What is happening and how we are feeling are a result of needs that are not being met – such as understanding	Make a request • Avoid saying what you don't want

NON-VIOLENT COMMUNICATION IN PRACTICE AT HOME

- The scene at home: walking in every day after work to sneakers, book bags, musical instruments on the floor right were the door opens

Warm opener "Hey guys, can we talk for a minute before I start dinner?

Non-judgmental observation I have noticed that I come home after work and your school bags and materials are placed in front of the door.

Statement of feeling I am usually rushing home from work excited feeling to see you and get dinner started before sports or lessons and I feel irritable feeling because I need to move them before I can come in.

Statement of need After a busy day at work, I need to transition to home so I can enjoy my time with you. I also know you need to relax a bit after school.

Request Do you think we can find a space that is not inconvenient for your belongings but also out of my way when I come home?"

NON-VIOLENT COMMUNICATION IN PRACTICE AT WORK

- 42 yo male patient insisting on screening for pancreatic cancer because his mom died of this last year

Warm opener Thank you for bringing your concerns in to me today.

Non-judgmental observation I can hear concern and worry in your voice. It sounds like this is causing you distress. Part of my job is to make sure I order tests that can actually get answers and not add to our questions. There is no test I can do as a screening test for pancreatic cancer right now in current day medicine.

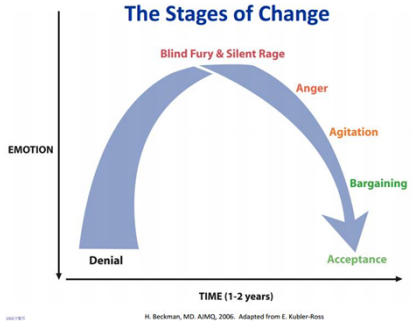
Statement of feeling I am uncomfortable feeling ordering tests that will not give us answers. Tests that we might use to try to work around that can make you anxious feeling if we see abnormalities in other areas that are not impacting you.

Statement of need I need to consider the all these risks and benefits for you as an individual to chart a safe course for you.

Request What if we both keep our eyes on the news. If either of us sees a new test for pancreatic cancer screening, we will look into it together?

Skills for Success

- Manage your reaction internally – remain calm
- Consistently support the patient is in pain (pain is a perception)
- Focus on facts / behaviors, not character
- Non-judgmental language
- Insist on respectful communication
- Safety: door open, location
- Consistency is key
- Offer continued care



39

Case

Meet Ralph

- 57 year old male with a PMH of morbid obesity (weighing 362 lbs), gout, hypertension, juvenile myoclonic seizures on valproic acid, chronic low back pain, osteoarthritis of the knee
- Patient had a spinal lumbar decompression of L3, L4, and L5 with a right L4-L5 synovial cystectomy in June 2009

Ralph's Current Regimen

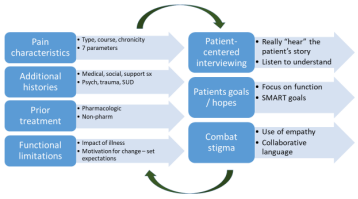
- Hydrocodone-acetaminophen 5-325mg orally multiple times a day
  - Current MME: 15
- Lisinopril 20mg orally daily
- Depakote 500mg orally TID
- Allopurinol 100mg orally BID

Ralph's Past Treatment

- Patient had initially been started on hydrocodone in November 2013 by his neurosurgeon for back pain
  - Unclear if he was taking this prior to his surgery in 2009, or what treatments were tried between 2009 and 2013
- In 2016, his PCP took over his opioid prescriptions

Pause and Reflect

- Inherited treatment plans
- Patient inertia to change
- Reasonable re-work
- Clarify timeline



Ralph's Past Treatment

- *Patient had initially been started on hydrocodone in November 2013 by his neurosurgeon for back pain*
  - *Unclear if he was taking this prior to his surgery in 2009, or what treatments were tried between 2009 and 2013*
- *In 2016, his PCP took over his opioid prescriptions*
- In February 2019, using 1-2 tablets per day of hydrocodone APAP 5-325mg due to worsening pain exacerbated by job
- Patient had also gained 18 pounds at the time

Speaking of Biopsychosocial

- Ralph feels he was fired in 2009 for sciatica
  - He was unemployed for 5 years after that
- Currently drives a truck part-time
- Marital history: Divorced
- Religion: Muslim
- SHx: No smoking, alcohol, or illicit drug use

Ralph's Physical Exam: Feb 2019

- BMI: 44
- MSK: 5/5 strength bilaterally proximal/distal muscles in all extremities, normal muscle tone
- Gait not assessed
- Skin: No rashes, lesions or ulcers
- Neuro: AAOx3, CN II-XII intact, sensation grossly intact

Labs: Dec 2017

- Vitamin D < 13
- A1c: 5.3
- TSH: wnl

What may be contributing to his low back pain

- Osteoarthritis
- Weight (morbid obesity)
- Muscular overuse
- Degenerative disc disease
- Poor posture (not working, no regular exercise) – quadratus lumborum
- Acute injury on chronic?

Clarification of pain

- It is critical to identify the underlying etiology for their pain
- Treatment approach can then be tailored to the modality with proven benefit
  - For example: fibromyalgia pain, osteoarthritis type pain or neuropathic type pain all have a different effective treatment approach

Recommendations

- MSK exam to characterize back pain
- Clarification of psychiatric (prior history of depression)
  - May need psychiatry consultation
- Referral to weight loss clinic
- Replace vitamin D
- DEXA scan as patient is on Depakote

Beginning Thoughts

- Comorbid depression and significant life stressors → poor coping skills for managing pain
- Needs dedicated visits to discuss their chronic pain Q3 months
- Maintenance on the same opioid regimen for many years → tolerance
- Pain amelioration with opioid use at this point unlikely
- Significant psychological attachment to this medication
- Belief system surrounding its representation of a "strong pain reliever"
- Benefit from re-assessment and consideration for alternative therapies to help minimize risk

Pain–Depression Dyad

- Chronic pain and depression often co-exist
- Between 40 – 60% of patients have both
- Assessment, diagnosis and management is extremely challenging
- The neuro-transmitters, serotonin and norepinephrine, are implicated in both conditions
- Negatively impact attention, concentration, ability to process information and other cognitive abilities
- Treating both yields improved results

SNRIs

- Evidence has shown that duloxetine can be helpful with depression and anxiety along with pain
- Titration: 30mg once a day for 7 days and if tolerating, then increase to 60mg po qday
- Patient's awareness of side effects remain fundamental in medication adherence

Non-pharmacologic/ Adjunctive/ Holistic

- These treatments are no longer considered "alternative"
- Mindful meditation, yoga, and acupuncture (AC) all options
- Osteoarthritis mainstay of treatment now non-pharmacologic
  - Education
  - Exercise
  - Weight loss
- German RCT (n=302): acupuncture is more effective than none in migraine
- Alone or adjunct, acupuncture provides short-term improvements in pain and function for chronic LBP
- More RCTS for validity needed

1. JAMA. 2021;325(6):568-578 doi:10.1001/jama.2020.22171
2.Evid Based Complement Alternat Med. 2015

The Basics

- Pain management should follow the WHO analgesic step ladder
- Managed first with acetaminophen
- Next, add NSAID medication if no contraindication

The Basics

- Acetaminophen dosing for pain 975-1000 mg scheduled TID
- NSAIDs
  - 11 different classes of NSAIDs to rotate
  - E.g. Meloxicam vs. Celecoxib vs. Diclofenac (different class than IBU or naproxen)
  - Recommended doses examples:
    - Meloxicam 7.5 – 15mg po daily
    - Celecoxib 200mg po daily
    - Diclofenac ER 100mg po once to twice daily

Mahmud SM, et al. Use of Non-Steroidal Anti-Inflammatory Drugs and Prostate Cancer Risk: A Population-Based Nested Case-Control Study. https://doi.org/10.1371/journal.pone.0016412]

Opioids in Chronic Pain…guess what?

- SPACE trial
  - 12-month randomized with masked outcome assessment at VA (n=240)
  - Q: Mod-to-Severe chronic back pain or hip or knee OA pain despite analgesic use, do opioids (O) result in pain-related function than non-opioids (NO)?
    - 3.4 vs. 3.3 points on an 11-point scale at 12 months, O vs. NO
    - Opioids were **not superior** for improving pain-related function over 12 months
      - Results do not support initiation of opioid therapy for moderate to severe chronic back, or hip or knee OA pain

Krebs EE, et al. JAMA. 2018;319(9):872-882.

Tailored Tx: Osteoporotic "Bone" Pain

- Bisphosphonate therapy has been shown to reduce bone pain
- Consider calcitonin nasal spray
  - Unlabeled use of calcitonin for OP vertebral fracture, metastatic bone pain, trigeminal neuralgia, and phantom limb pain
- Calcitonin has mounting evidence
  - Analgesic effect can be evidence as soon as the second week of treatment
- A recommended dose for this might be:
  - Nasal Spray: 1 spray (200 IU) qDay, alternate nostrils daily

Gennari C. Bone. 2002 May;30(5 Suppl):67S-70S

Do Muscle Relaxants Have a Helpful Role?

- Muscle relaxants can have benefit when used short-term
- Evidence for cyclobenzaprine suggests:
  - Loss of therapeutic effect and increase in side effects with use beyond 10-14 days
  - 50% loss of efficacy for each day beyond 5 of use
- Unless there is spasm, benefit unlikely outweighed by risk
- Avoid centrally-acting agents such as baclofen/tizanidine
  - Centrally-acting muscle relaxant use is typically reserved upper motor neuron dx such as cerebral palsy or stroke

1. Browning R, et al. Arch Intern Med. 2001;161(13):1613-20. doi:10.1001/archinte.161.13.1613.
2. Canadian Agency for Drugs and Technologies in Health. https://www.ncbi.nlm.nih.gov/books/NBK279656/pdf/Bookshelf_NBK279656

LTOT

- Patients treated with long-term opioid regimens develop tolerance
- Tolerance is a natural component of opioid use
- With tolerance, likely not contributing to pain relief
- LTOT risks: hyperalgesia, gonadal suppression, urinary retention, chronic opioid-associated abdominal pain, etc.
- Opioid taper benefits
  - Reduce current tolerance
  - Identify a concrete functional goal such as "working a 4 hour day" and treat to function

Hayhurst, Christina, Durieux, Marcel. Differential Opioid Tolerance and Opioid-induced Hyperalgesia: A Clinical Reality. Anesthesiology. 2016;124(2):483-488. doi:10.1097/ALN.0000000000000963.

Neuropathic Considerations

- Pharmacotherapy (minimum treatment doses)
  - Gabapentinoids
  - SNRIs
  - TCAs
- Non-pharmacologic therapy
  - TENS units
  - Stim treatment with PT: slightly more invasive
- Work-up
  - TSH, vitamin B12, ESR, HIV, viral hepatitis panel, complement levels, SPEP/UPEP
  - Consideration of an EMG
  - Additional labs such as Vitamin D can have an effect on chronic pain, not necessarily neuropathic

https://www.cochrane.org/CD007076/SYMPT_pregabalin-chronic-neuropathic-pain-adults Jan 2019

Psychosocial Considerations

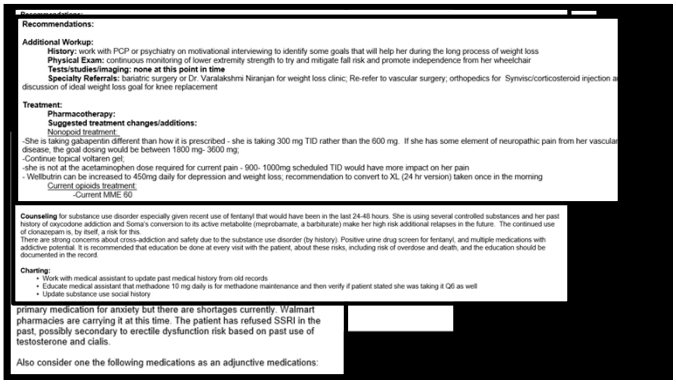
- Chronic pain conditions, including neuropathic pain, can trigger depression and anxiety
- Learning techniques to manage mood and anxiety symptoms, to improve quality of life is key
- Cognitive behavioral therapy aids in acceptance
- Chronic pain support group aids in decreasing a feeling of isolation and learning coping mechanisms from peers as well as facilitator

SMART Goals

- Specific
  - Lose weight to help my pain
- Measurable
  - 2 pounds per week
- Attainable
  - Lose 15 pounds
- Realistic
  - Within 3-4 months
- Time-based
  - 4 pounds in first month; 15+ in 4 months

Opioid Toolkit

- Partnering with our patients
- Medication agreements with *specific* functional goal
- Reduce stigma – chronic disease
- Q3 month visits (just like DM)
- Know when to stop
  - Benefit outweigh risk?
  - Attained functional goal?
- Urine toxicology: before initiation, random but regular
- CPMRS – *it's the law*


Recommendations:

Additional Workup:
History: work with PCP or psychiatry on motivational interviewing to identify some goals that will help her during the long process of weight loss
Physical Exam: continuous monitoring of lower extremity strength to try and mitigate fall risk and promote independence from her wheelchair
Tests/studies/imaging: none at this point in time
Specialty Referrals: bariatric surgery or Dr. Varalakshmi Niranjan for weight loss clinic; Re-refer to vascular surgery; orthopedics for Synvisc/corticosteroid injection a
discussion of ideal weight loss goal for knee replacement

Treatment:
Pharmacotherapy:
Suggested treatment changes/additions:
Nonopioid treatment
-She is taking gabapentin different than how it is prescribed - she is taking 300 mg TID rather than the 600 mg. If she has some element of neuropathic pain from her vascular
disease, the goal dosing would be between 1800 mg- 3600 mg;
-Continue topical voltaren gel;
-she is not at the acetaminophen dose required for current pain - 900- 1000mg scheduled TID would have more impact on her pain
- Wellbutrin can be increased to 450mg daily for depression and weight loss; recommendation to convert to XL (24 hr version) taken once in the morning
Current opioids treatment:
-Current MME 60

Counseling for substance use disorder especially given recent use of fentanyl that would have been in the last 24-48 hours. She is using several controlled substances and her past history of oxycodone addiction and Soma's conversion to its active metabolite (meprobamate, a barbiturate) make her high risk additional relapses in the future. The continued use of clonazepam is, by itself, a risk for this.
There are strong concerns about cross-addiction and safety due to the substance use disorder (by history). Positive urine drug screen for fentanyl, and multiple medications with addictive potential. It is recommended that education be done at every visit with the patient, about these risks, including risk of overdose and death, and the education should be documented in the record.

Charting:
- Work with medical assistant to update past medical history from old records
- Educate medical assistant that methadone 10 mg daily is for methadone maintenance and then verify if patient stated she was taking it Q6 as well
- Update substance use social history

primary medication for anxiety but there are shortages currently. Walmart pharmacies are carrying it at this time. The patient has refused SSRI in the past, possibly secondary to erectile dysfunction risk based on past use of testosterone and cialis.

Also consider one the following medications as an adjunctive medications:

Summary

- Use HISTORY, imaging, labs – to identify pain etiology
- Qualify the functional goal (not "pain free")
- Tailor treatment for:
  - Comfort to meet goal, and
  - Based on pain pathophysiology
- Treatment algorithms should highlight non-pharm modalities
- Frustration can exist for patient and clinician
- Empathetic communication rubrics to work through treatment challenges

Acknowledgements

- *Funding for this conference was made possible by the Connecticut Department of Public Health's federal grant # CE925011 entitled: Overdose Data to Action. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the U.S. Department of Health and Human Services or Centers for Disease Control and Prevention, nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.*