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Multidisciplinary Pain Management Complex Cases

Theresa Mallick-Searle, MS, ANP-BC
Stanford Health Care, Division Pain Medicine
Tmallick@stanfordhealthcare.org
@tmallic
https://www.linkedin.com/in/theresa-mallick-searle

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Disclosures

- Speakers Bureaus – Allergan, Amgen & Pernix
- Any unlabeled/unapproved uses of drugs or products referenced will be disclosed

Objectives

- Describe the pain pathways.
- Define the concept of multimodal pain management.
- Evaluate complex case-studies in pain management.

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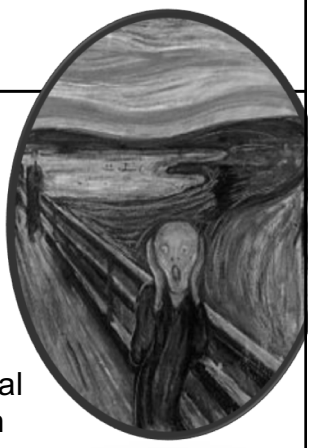
What is Pain?



"Pain is a complicated process that involves an intricate interplay of chemicals and signaling in the central nervous system." *Sean Mackey, MD*

"An unpleasant sensory or emotional experience associated with actual or potential tissue damage or described in terms of such damage." *IASP*

"Whatever the experiencing person says it is, existing whenever he/she says it does." *McCaffery, RN*

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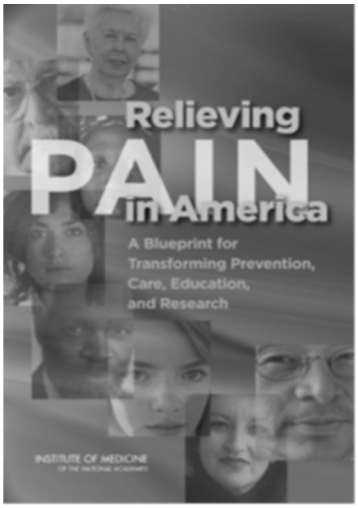
Stanford HEALTH CARE Institute of Medicine Report

Chronic pain affects 100 millions US adults.

#1 Reason people are out of work.

It is the leading reason that people seek medical attention, costing the nation upwards of $635 billion annually – more than heart disease, cancer, & diabetes combined.

Chronic pain is the most universal form of human stress (Turk, 2013)



Stanford HEALTH CARE Pain Classification

Acute	▪ Short duration ▪ Recent onset ▪ Transient ▪ Protective ▪ Known causality
Chronic/Persistent	▪ Duration > 3 months ▪ Persistent or recurrent ▪ Outlasts protective benefit ▪ Unknown causality ▪ Associated with co-morbidities
Breakthrough/Flare	▪ Unpredictable ▪ Fear association ▪ Multi-causality

Pain Characteristics

Nociceptive Pain	▪ Normal processing of stimuli that damages normal tissues ▪ Responds to opioids
➢ Somatic	▪ Pain arises from bone, joint, muscle, skin or connective tissue ▪ Aching, throbbing ▪ Localized
➢ Visceral	▪ Organs ▪ Deep ▪ Not well localized

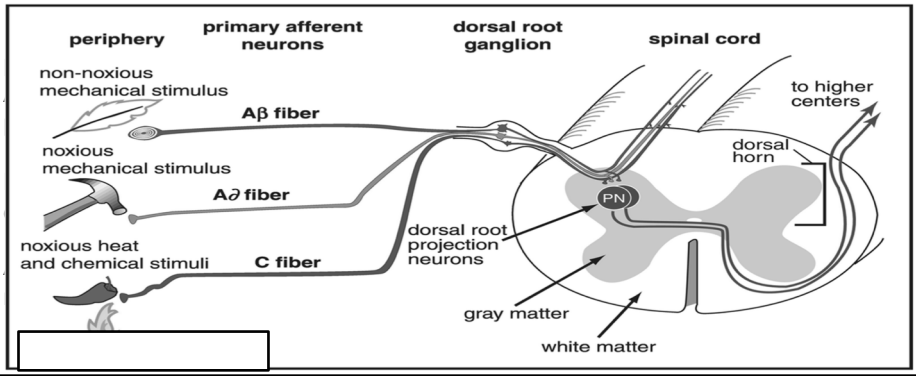
Pain Characteristics

Neuropathic Pain	▪ Abnormal processing of sensory input by PNS or CNS ▪ Less responsive to opioids
➢ Centrally generated	▪ Deafferent pain: injury to PNS or CNS (**phantom limb**) ▪ Sympathetically maintained pain: dysregulation of autonomic nervous system (**CRPS**)
➢ Peripherally generated	▪ Polyneuropathies (**diabetic neuropathy**) ▪ Mononeuropathies (**nerve root compression**)

PAIN PATHWAYS

Ascending Pain Pathway

- Injury in periphery > Nociceptors
- A δ and C fibers > dorsal horn
- Ascending spinothalamic tracts > Brain
- Insula, amygdala, prefrontal cortex, anterior cingulate cortex, supplemental motor area, hypothalamus.



Mr. Smith

- Mr. Smith, 48 y/o male w/chronic LBP and chronic opioid use.
- Referred to you b/c worsening pain, decrease in functionality and steady increase in opioid use.
- He continues to work, but had to reduce to less than full-time.

Challenges in Assessment/

When the patient is medically complicated
Language barriers
Fear, knowledge, expectations

When there is prior exposures (opioids, benzodiazepines, muscle relaxants, etc.)
When there is a substance abuse history
When the patient has chronic pain

"Difficult" personality
Co-dependence
Secondary gain

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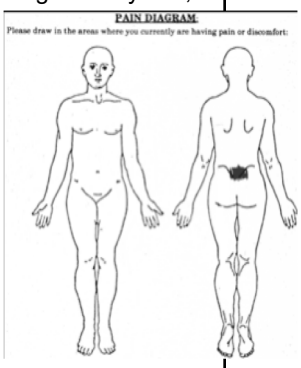
Mr. Smith

- O – back pain began about 5 years ago, when he was lifting a heavy box, and heard a "pop" in his back.
- L – axial low back, just right of midline.
- D – 5 years, with progression of muscle spasm and decrease in exercise past 6-12 months.
- C – achy, cramp pain with occasional sharp focal pain.
- A – stress, standing, sitting, lifting.
- A – worsening constipation, low libido, mild depression.
- R – stress reduction, lying down, medications (opioids & NSAIDs).
- T – gabapentin 600 mg tid (could not tolerate higher dosing) w/o efficacy, Celebrex 100 mg bid (developed HTN, and was placed on low-dose ASA given is risk factors and family hx of heart disease), hydrocodone/acetaminophen 10/325mg 6-8 tabs/d, massage, PT.



Mr. Smith

History:

- HTN, chronic LBP, mild depression
- Arthroscopic shoulder surgery 5 years ago (took Vicodin 2 days).
- Moderate alcohol consumption (2-3 beers a night), no tobacco, no other drugs.
- Married with one 10 year old daughter.

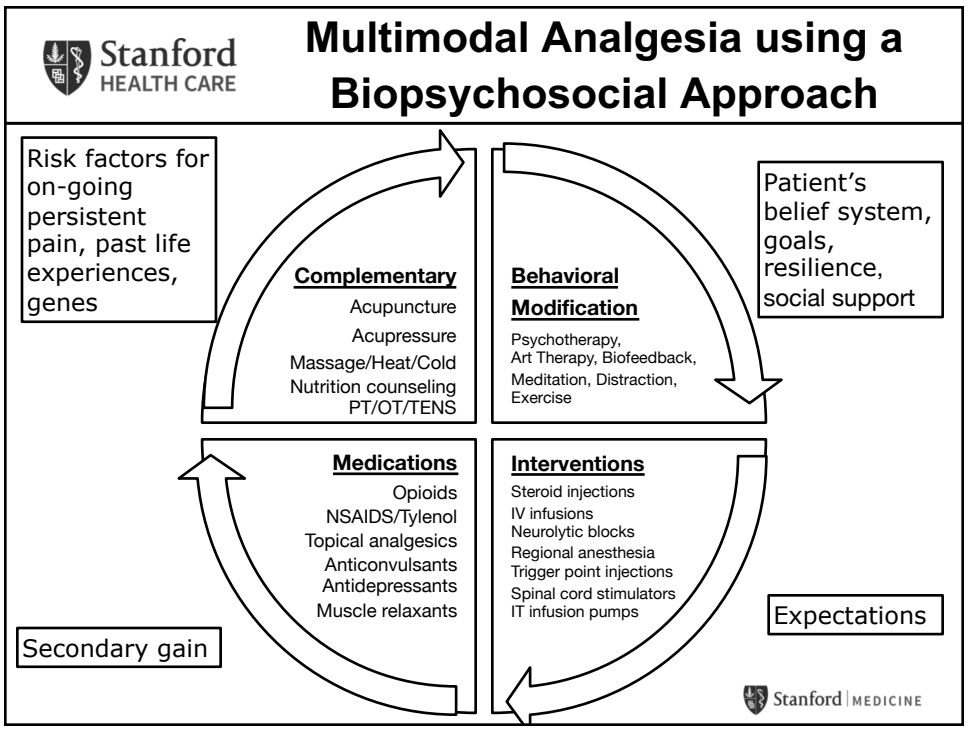
Diagnostics:

Flex/Ext lumbar spine films 5 years ago when he first “injured” his back. NL for age.

Mr. Smith

Exam: pulse 78 regular, 147/82

- A&Ox3, appropriately groomed, bright affect, good eye contact, wincing and grimacing with movement.
- CV: RRR, strong peripheral pulses.
- Lungs: Clear
- Abd: soft, non-distended
- MSK: 5/5 motor strength bilateral UE/LE, functional ROM all joints, slightly +facet loading maneuvers lumbar spine on right, mild lumbar lordosis, +paraspinal lumbar trigger points R>L. Non-antalgic, unassisted gait.
- Neurosensory: normal



Recommendations for Opioid Therapy

CDC's: 2016 Guideline for Prescribing Opioids for Chronic Pain
https://www.cdc.gov/drugoverdose/pdf/guidelines_factsheet-a.pdf

- Consider alternative options first.
- Opioids when other options fail.
- Start lowest effective dose for shortest duration.
- Implementing pain treatment agreements.
- Importance of monitoring (UDT, state PDMP).
- Encouraging manufactures to design abuse deterrent products.

Monitoring for Compliance & Risk Stratification

- Random drug screening, documenting improved activity levels, PMDP, opiate contracts/treatment agreements.
- Risk Stratification – Tools: SOAPP-R, ORT
  - http://nationalpaincentre.mcmaster.ca/documents/soapp_r_sample_watermark.pdf
  - http://www.painknowledge.org/opioidtoolkit/docs/ORT%20Physician%20Interview%20Form.pdf

Risk Level	Characteristics	Management
Low	• No h/o substance abuse • Minimal/no risk factors	Primary care provider (PCP)
Moderate	• H/o substance abuse (other than rx opioids) • Significant risk factors	PCP co-manages with addiction and/or pain specialists
High (Zacharoff, et al. 2010)	• Active substance abuse • H/o rx opioid abuse	Refer to specialist in management of comorbid addition and pain

The "5 A's" assessed in all patients on opiates

- Analgesia
- Activities of Daily Living (functionality)
- Adverse Effects
- Affect
- Aberrant Behaviors
  - Use despite harm, on the job, martial conflicts
  - Doctor shopping
  - Early refills

Mr. Smith

Assessment:

48 y/o male with non-specific LBP w/myofascial spasm.

- Manageable constipation r/t increased use of opioids.
- Low-testosterone r/t chronic opioid use (reason for depression).
- Low-libido?
- High risk for …
  - continued opioid tolerance
  - worsening depression/isolation
  - further reduction in activities, socialization

Mr. Smith

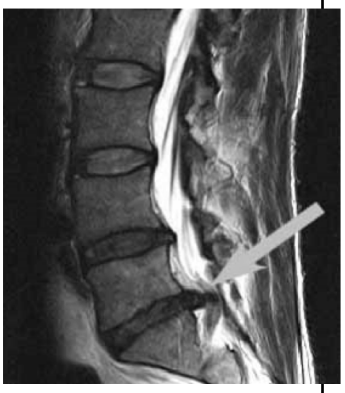
Plan:

- Discuss multimodal analgesia focusing on a biopsychosocial model, address expectations.
- Discussion
  - on-going opioid use, risk stratification (monitoring), 5 A's, REMS, opioid contract, management of current suspected opioid related SE/withdrawal.
- Discussion use of non-opioid analgesics.
- Cognitive behavioral therapy/structured, focused PT/acupuncture/guided imagery.
- Interventions (e.g. TP injections for spasm)
- Additional testing?
- Referrals?

Mr. Smith

Six months later he experiences a sharp shooting pain, constant, right leg with one incidence of bladder incontinence. Cannot sleep, leave from work.

- Repeat assessment
- New questions regarding “red flags”
- Imaging (MRI versus CT).
- Recommendations?



Mr. Smith

Three weeks later is scheduled for a L5-S1 decompression.

- Concerns about his post-operative pain management
  - Opioid tolerance
  - Catastrophizing
  - Depression
  - Central sensitization?
- Options/recommendation management?
  - Gabapentinoids, non-opioid analgesics, opioid requirements, intra-op infusions, regional anesthetics.
- Discharge plan/Follow-up

Mr. Smith

Given 2 week supply of medications by surgeon, and scheduled follow up in clinic with you in two weeks.

He is calling your office in a week stating that he has run out of oxycodone, and he is not taking gabapentin any longer, feeling that it does not help his pain.

Your Plan:

- Discharge from clinic?
- Tell him get meds from surgeon until his scheduled f/u with you?
- eprescribe additional weeks worth of oxycodone to the pharmacy?
- See back in clinic sooner?
- Other?

Mr. Smith

See Mr. Smith back in clinic that same day, as an urgent add-on …

Your Plan:

- Discharge from your clinic for none compliance?
- Review with him the opioid contract/treatment agreement (expectations, etc.), repeat stratification assessment (higher risk, additional monitoring), continue with medication management (opioids, non-opioid analgesics)?
- Wean off of opioids (versus use of buprenorphine), addiction medicine consult?

Mr. Smith

Over the next 3 months:

- Mr. Smith continues to call in early for opioid refills.
- He presented to the local ED on one occasion for unmanaged pain.
- He has been non-compliant with your recommendations of non-opioid medications & your counseling about the need for mental health services to better manage his depression and new anxiety.

Mr. Smith

Now What?

- "Safely" wean off of opioids.
- Refer to Addiction Medicine & Psychiatry?
- Would you continue to see him for pain management w/o opioid therapy?

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Discussion

- Chronic pain
- Management acute (post-surgical pain) with chronic pain
- Opioid management
- Opioid misuse +/-frank addiction
- Importance of multimodal pain management and understanding of the biopsychosocial model

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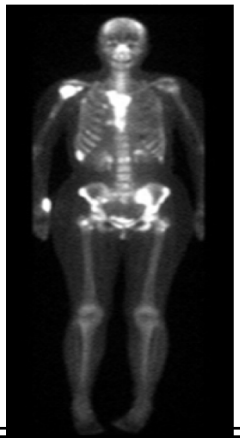
Mrs. Smith

68-year-old female with widespread pain as a result of breast cancer that had metastasized into her lymph nodes, vertebrae, her right shoulder, and left hip.

She was referred to the pain center by her oncologist to provide palliative pain relief.

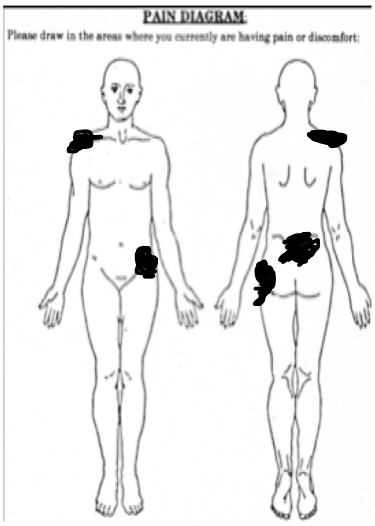


Chief complaint:

- Radicular low back pain.
- Focal right shoulder & left hip pain.
- Nausea, constipation, poor sleep, depression, extreme fatigue.

Mrs. Smith

- O – Onset
- L – Location
- D – Duration of each painful region
- C – Characteristics
- A – Aggravating factors
- A – Associated symptoms
- R – Relieving factors
- T – Treatments, response, side effects



Mrs. Smith

History:

- HTN, chronic anemia, depression, metastatic breast cancer, persistent pain.
- Mastectomy 5 years ago w/lymph node dissection, bunionectomy 20 years ago.
- No alcohol, no tobacco. +marijuana edibles for sleep.
- Married with one 25 year old daughter, and 2 y/o grandson.

Medications: Lisinopril 20 mg/d, fluoxetine 20 mg/d, fentanyl patch 100 mcg/48hr, daily iron, clonazepam 0.5 my bid prn, colace & MiraLax.

Diagnostics:

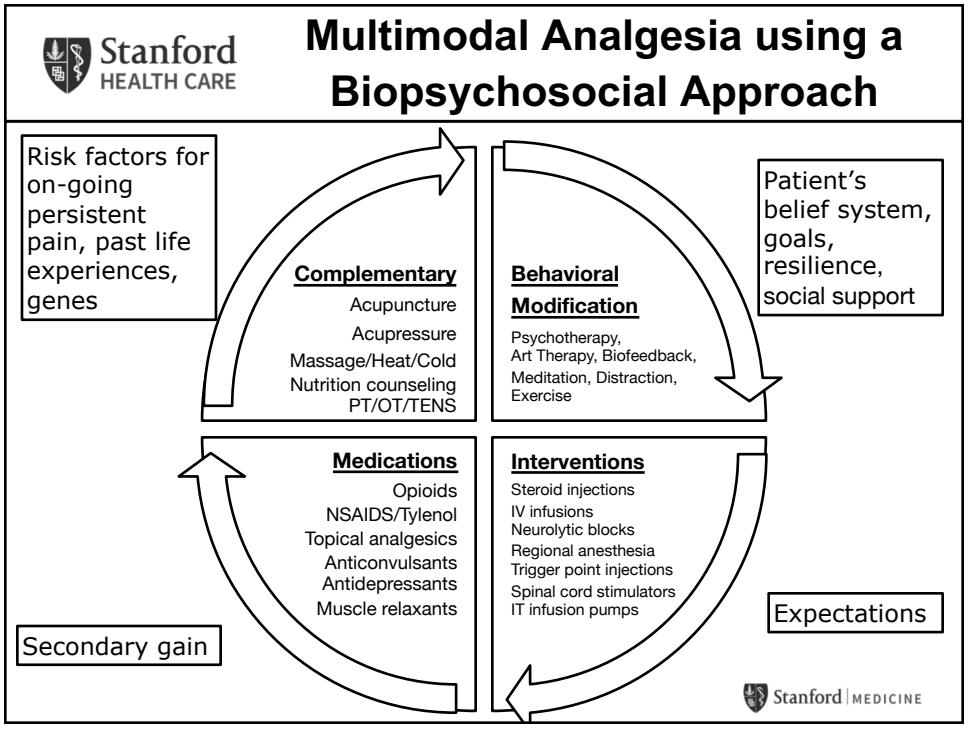
PET CT 2 months ago, shows metastatic lesions.

CBC = Anemia

Mrs. Smith

Exam: pulse 68 regular, 130/75

- A&Ox3, appropriately groomed, ill looking, wincing and grimacing with movement.
- CV: RRR, strong peripheral pulses.
- Lungs: Distant
- Abd: soft, non-distended
- MSK: 5/5 motor strength bilateral UE/RLE, 4/5 LLE, functional ROM all joints, pain and guarding with right shoulder movement, slightly +facet loading maneuvers lumbar spine on right, mild lumbar lordosis, +paraspinal lumbar trigger points R>L. Ambulates with a slow gait, using a walker for balance.
- Neurosensory: normal sensation throughout to light touch, no neural impingement signs identified,



Mrs. Smith

Assessment:

68 y/o females with widespread pain as a result of breast cancer that had metastasized into her lymph nodes, vertebrae, her right shoulder, and left hip. Her care is now palliative, she has less than 6 months to live.

- Her worse pain is L hip/radicular L4, mild to moderate focal low back L>R muscle spasm, focal right should pain with guarding.
- She is opioid tolerant with dose limiting side effects of worsening constipation, nausea and sedation.
- Additionally she struggles with depression, occasional anxiety, poor sleep chronic fatigue r/t anemia of chronic disease.

Mrs. Smith

Assessment:

68 y/o females with widespread pain as a result of breast cancer that had metastasized into her lymph nodes, vertebrae, her right shoulder, and left hip. Her care is now palliative, she has less than 6 months to live.

- Initial thoughts/concerns?
- Risk for …?
  - Failure to thrive
  - Worsening pain, depression, social isolation
  - Opioid misuse, side effects
  - Other

Mrs. Smith

Plan:

- Discuss multimodal analgesia focusing on a biopsychosocial model, address expectations.
- Discussion
  - on-going opioid use, risk stratification (monitoring), 5 A's, REMS, opioid contract, management of current suspected opioid related SE/withdrawal.
  - Concerns about cannabis?
- Discussion use of non-opioid analgesics.
- Cognitive behavioral therapy/structured, focused PT/acupuncture/guided imagery.
- Interventions (e.g. TP injections for spasm)
- Additional testing?
- Referrals?

Mrs. Smith

Plan:

- Gain an understanding about her fears, concerns, expectations. Fear of dying in pain, willing to tolerate more pain to maintain lucidity, interact with family.
- Discussion
  - Focus on patient safety and appropriate use of medications. Still important to address keeping medications safe to prevent diversion and misuse. May want to consider IN naloxone.
- Non-opioid analgesics: gabapentinoid, SNRI such as venlafaxine (pain, mood, anxiety), NSAIDs/acetaminophen monitoring liver/renal. Maybe reduce Fentanyl patch b/c side effect versus switch to another long-acting, +/- immediate release versus consider IT pump
- Cognitive behavioral therapy/structured, focused PT (strengthening)/acupuncture/guided imagery.
- Interventions (e.g. TP injections for spasm, L4 SNRB, IT pump placement)
- Additional testing – L-spine MRI (Lumbar mass pressing on the L4 nerve root.)
- Referrals (Palliative care, social work, psychology, nutrition)

Interdisciplinary Care in Pain Management

The concept of interdisciplinary care refers to a philosophy and process of care that integrates the specialized knowledge of multiple disciplines:

Medicine
Nursing
Physical Therapy
Nutritionists
Pharmacists
Social Workers/Case Managers
Psychologist/Psychiatrist

Discussion

- Chronic pain
- Management acute (breakthrough pain) with persistent pain
- Opioid management
- Medication side effects, special focus on opioid SE
- Importance of multimodal & interdisciplinary pain management and chronic disease.
- Palliative Care

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References

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