CHRONIC PAIN

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“Divine is the task to relieve pain.”
-Hippocrates
Pain that persists or recurs > 3-6 months
- Pain that persists >1 month after injury/event
- Commonly seems out of proportion to the physical process
- Cause may be unknown
- Multifactoral

Epidemiology:

- 116 million people affected in U.S.
- Approx $600 BILLION annually
- Associated with depression (77%), difficulty concentrating (70%), low energy (74%) and difficulty sleeping (86%)
- Back pain most common
  - Headache
  - Neck pain
  - Facial pain
Biologic Basis of Chronic Pain

Thought to result from *neuromodulation*:

- **Peripheral Sensitization**
  - Decreased pain threshold, increased pain response to minimal stimulus

- **Central Sensitization**
  - Decreased threshold for signal transmission between periphery and CNS
  - Down-regulation of pathways that dampen pain transmission

Psychological Component

- Depression
- Anxiety
- Somatoform Disorders
- Substance Abuse
- Malingering
Social Component

- Worker’s Compensation
- Home concerns
- Financial concerns
- Relationship concerns

DIFFERENTIAL CATEGORIES:

Organic causes

Psychosocial causes
HISTORY:

*Focus on determining organic vs. nonorganic pathology*

▶ **OLD CART**

▶ **CARDINAL FEATURES OF PAIN:**
  1) **Onset in detail!**
  2) **Quality/severity – Patient’s Own Words**
  3) **Location/spread**
  4) **Aggravating/relieving factors**
  5) **Associated symptoms**

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**Brief Pain Inventory**

1) Throughout our lives, most of us have had pain from one or two such as injuries, headaches, injuries, and toothaches. Have you had pain other than these everyday kinds of pain today?
   Yes ☐ No ☐

2) On the diagram mark in the area where you feel pain. Put an X on the area that hurts the most.

3) Please rate your pain by circling the one number that best describes your pain for the past 24 hours.
   0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐
   Pain as bad as you can imagine

4) Please rate your pain by circling the one number that best describes your pain as it is today.
   0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐
   Pain as you can imagine

5) Please rate your pain by circling the one number that best describes your pain so far.
   0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐
   Pain as you can imagine

6) Please rate your pain by circling the one number that tells how much pain you have right now.
   0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐
   Pain as you can imagine
PAIN HISTORY:

- Prior diagnostics
- Interventions
- Pain Medications
- Non-Pharmacologic measures
- Psychological history
Physical Examination:

Comprehensive PE is focused on identifying possible underlying organic causes

- functional limitations and abilities

Pharmacologic Therapy for Neuropathic Pain

- Antidepressants
  - TCA
  - SSRI
  - SNRI
- Anticonvulsants
- Topicals*
- Opioids*
Antidepressants

- **TCA**
  - Amitriptyline (Elavil) – start 25mg QHS, max 75mg bid
  - Doxepin (Sinequan) – start 25mg bid, max 100mg Q8h
  - Sedation, arrhythmias, anticholinergic
  - Good choice for sleep, caution in elderly

- **SSRI**
  - Fluoxetine (Prozac) – start 20mg QD, max 80mg QD
  - Citalopram (Celexa) – start 20mg QD, max 40mg QD
  - Not as effective as TCA
  - GI upset, insomnia, sexual dysfunction

- **SNRI**
  - Duloxetine (Cymbalta)
    - FDA approved for peripheral neuropathy, fibromyalgia, M/S pain, depression, anxiety
    - Start 30mg QD, target 60mg QD, higher doses rarely more effective
    - Taper gradually!
    - CrCL <30: avoid
    - Hepatic impairment: avoid
    - GI upset, insomnia, nervousness, sexual dysfunction
Anticonvulsants

Block impulses in nociceptive fibers
  ► Phenytoin (Dilantin)
  ► Carbamazepine (Tegretol)
  ► Pregabalin (Lyrica) – Schedule V
    ► Start 25-75mg po bid; titrate in a week; Max 450-600mg/day
    ► Dizziness, somnolence, edema, blurred vision, weight gain impaired coordination, constipation, abnormal thinking……STEVENS-JOHNSON SYNDROME, SUICIDALITY, Rhabdo, THROMBOCYTOPENIA

STEVENS-JOHNSON SYNDROME!!
Anticonvulsants (cont)

**Gabapentin (Neurontin)**
- Start 300mg Day 1, then 300mg BID Day 2, then 300mg TID Day 3 ~ $250/month
- Max dose 600mg TID ~ $500/month
- SE similar to Lyrica; acute renal failure; withdrawal seizures

Pharmacologic Therapy for Nociceptive Pain

**First line: NSAIDS**
- Caution: Hypertension, renal disease, heart failure, MI, GI risks
- COX-2: less GI risk, greater cardiac risk

- Acetaminophen
  - Max daily dose 4,000 mg but aim for 3,000
  - Caution: liver damage
When all else fails.....Opioids

Risk vs. Benefit

- IS PATIENT A GOOD CANDIDATE??
  Moderate to severe pain unresponsive to non-opioids
  >4-5/1-10 scale
  PAIN IS DISABLING
  Other therapies tried and failed
  Risk of adverse effects
  Risk of misuse/diversion/abuse

- WHO CAN PRESCRIBE OPIOIDS??
  - NP? MD?

2007: prescription opioid abuse costs = approx. $56 BILLION

2011: 420,040 ED visits related to misuse or abuse of opioids

2012: Drug overdose leading cause of death

2013: **16,235 DEATHS** from opioid overdose

Kentucky:
  Second highest rate of drug overdoses in US in 2012
  25 per 100,000
Defining the terms:

**Misuse:** Any deviation from the prescribed use of a drug
- Borrowing from a friend/family member
- Higher dose than prescribed
- Taking longer than prescribed
- Different route than prescribed

**Diversion:** Use of licit drugs for illicit purposes
- Deviating from legal and medically necessary use
- Recreational use
- Selling

**Abuse**
- Failure to fulfill major role obligations at work, school, or home
- Frequent use of substance in physically hazardous situation
- Frequent legal problems
- Continued use despite social/interpersonal problems
Universal Precautions for Opioid Therapy

1. Diagnosis!!
2. Psychological assessment
3. Informed consent
4. Treatment agreement
5. Pre/post intervention assessment of pain/function

www.partnersagainstpain.com/printouts/Opioid_Risk_Tool.pdf
**GAD-7**


- 7 item screening scale
- 8+ = probable anxiety disorder

**PHQ-9**

http://www.phqscreeners.com/


- 1-4 Minimal
- 5-9 Mild
- 10-14 Moderate
- 15-19 Moderately Severe
- 20-27 Severe
UDS

- A urine drug screen should be done prior to initiating any controlled substances and randomly throughout treatment
- Usually an immunoassay first (positive/negative) then confirmatory test
- Detection time affected by hydration status, metabolism, urine pH, pharmacokinetics
- Tip: Utilize toxicologists available through testing laboratory

Universal Precautions (cont)

6. Opioid trial
7. Regularly assess the “Four A’s”
   - analgesia, activity, adverse effects, aberrant behavior
8. Revisit pain and comorbidity diagnoses
9. Documentation
10. Utilize Prescription Drug Monitoring Program (PDMP)

http://www.deadiversion.usdoj.gov/faq/rx_monitor.htm
Aberrant Behaviors:

- Lack of adherence to prescription schedule
- *Resistance to nonopioids (“Allergic to …”)*
- *Insistence on certain forms of medication (Lorcet vs. Lortab)*
- Multiple providers/doctor shopping
- *Early refills (“going out of town”…”death in family”)*
- ED visits
- *Increasing dose/frequency without authorization*
- *Lost/stolen prescription (“My son is a druggie, stole my RX”)*
- *Missed appointments (unless due for refill)*
- *Unscheduled visits to clinic (esp. end of day/Friday)*

90 IS THE MAGIC NUMBER

- **AFTER 90 DAYS** OF CONTINUOUS USE, OPIOID TREATMENT IS MORE LIKELY TO BECOME LIFE-LONG

- **PATIENTS WHO CONTINUE OPIOIDS > 90 DAYS** TEND TO BE HIGH-RISK PATIENTS

Choice of Opioid:

► **Tramadol (Brand name Ultram, Ryzolt) – Schedule IV**
  ► Weak opioid
  ► Peak 2 hours, Half-life 6 hours
  ► **Less** potential for abuse
  ► SE: nausea, drowsiness, constipation
  ► Caution with seizures, SSRIs, renal impairment, severe asthma
  ► Chronic pain: Start 100mg po QD, titrate to max 300mg/day
  ► Extended release (Ultram ER) same dosage

► **Tapentadol (Brand name Nucynta) – Schedule II**

Opioids (cont):

► Short-acting, low potency
  ► Hydrocodone (Lortab, Lorcet) – Schedule II***
    ► Start 10mg po Q 12 hours, titrate slowly, taper slowly

► Short-acting, higher potency
  ► Morphine – MS Contin, Kadian – Schedule II
  ► Oxycodone – Oxycontin – Schedule II
  ► Hydromorphone – Dilaudid Schedule II

► Metabolized in liver
► Excreted in kidneys
Legal/Ethical Considerations

- **Safety:**
  - Education – driving, heavy equipment
  - Misuse/Diversion
- Pregnancy:
  - CDC recommendation 2015: limit opioids in childbearing age women
  - Associated with neonatal opioid withdrawal, prolonged QT interval, and increased risk of heart defects

- Know federal/state laws, regulations, and policy statements

LEGAL CONSIDERATIONS - NP PRESCRIBING

- DEA – Drug Classification
  - II-V
- State – Prescribing Authority
  - CAPA-NS
  - CAPA-CS
Non-Pharmacologic Therapies:

- CBT – trains patient to recognize and change unhealthy pain responses. Headache, M/S, low back
- Pain Education
  - Realistic expectations
- Physical Therapy
  - Improves pain and functionality
- Acupuncture – esp. M/S pain, low back, headache
- Massage - Functionality
- Mental health services

Pain Management Referral

Prior to Initiating:
- Personal or employer decision
- History of drug abuse
- Psychiatric issues
- Other drug-related behaviors

Ongoing Therapy:
- Inconsistent drug screens/pill counts
  - Substance abuse referral
- Lack of progress
NP Resources:

- www.painmed.org
- www.cdc.gov/primarycare/materials/opioidabuse/
  - Diversion info, state PDMP info
- www.partnersagainstpain.com/printouts/Opioid_Risk_Tool.pdf
  - Opioid prescribing risk assessment tool
  - Prescribing guide for KY Nurse Practitioners
  - Guide to urine drug testing

THE PAIN DOESN'T GO AWAY. YOU JUST MAKE ROOM FOR IT.
END OF CHRONIC PAIN