OPIOIDS-ADDICTION-DEPRESSION

• Presented by:
  • Billy Heckle, CAC II, Registered Pharmacist
  • WJ McCord Adolescent Treatment Facility
  • 910 Cook Road
  • Orangeburg, SC  29118
  • 803-534-2328  Ext. 117
  • 803-682-3636  Cell
  • Email= bheckle@tccada.state.sc.us   10-9-2016

• Px=Problem   Sx=Symptoms   Fx=Effects   Tx=Treatment
Addiction-Depression-Chronic Pain
Common Sx of Depression-Addiction-Chronic Pain

Confusion...........Mood Swings...........Emotional Px...........Fatigue/No Energy/Tired
Hopeless...........Sleep Px..............Sex Px-<Libido...........Constant Pain
GI Px...............Feel "Empty".........Anhedonia............<Social
Suicidal............No Lab Test.........."Look Bad".................Money Px
W/D Sx.............Many Meds...........Relationship Px.......24/7 Px
Irritable.........."Can’t get up"........Meds Work............’Aberrant Behavior’
Isolation..........Stop Laughing......."Don’t Care"..............Appetite Px
Guilt...............Suicide...............Concentration Px....Lose Interest/Curiosity

Gets worse if not treated properly...All MUST be treated concurrently
Each one makes the other worse...Symptoms overlap
Which came first doesn’t really matter much at this point
Common Areas of Co-Occurring Brain Damage
A Lot of Working Parts
Depression - Emotional and Physical Pain

The Toll Depression Has On The Body And Mind

For the 350 million people who suffer from depression worldwide, it can be hard to put into words just how taxing the illness can be. Depression is often characterized by sadness, but the physical and emotional repercussions extend far beyond that, often making daily life challenging to navigate. Studies show that depression can lead to a lack of motivation, poor job performance and impaired productivity. Take a look at some of the effects of depression below.

**PHYSICAL SYMPTOMS**
- Headaches
- Indigestion
- Low energy and exhaustion
- Appetite and weight changes
- Joint and muscle fatigue
- Sleep loss
- Nausea

**EMOTIONAL SYMPTOMS**
- Anxiety
- Brooding
- Excess worry over physical health
- Obsessive rumination
- Tearfulness

**COMBINATION OF BOTH RESULTS IN...**
- Suicidality
- Lack of interest in pleasurable or normal activities
- Overall sadness
- Feelings of frustration
- Feelings of guilt

---

**Can Chronic Pain Cause Suicidal Thoughts?**

There are people who suffer from severe physical pain who may experience suicidal thoughts. It is important to seek help and support from professionals.

**THE HUFFINGTON POST**

-Suicide may occur for a number of reasons, including:
- *depression*
- *shame, guilt, desperation, physical pain, emotional pressure, anxiety, financial difficulties, undesirable situations.*

---

**In Memory of Nick Wilson - Suicide Stigma**

I am a silent killer. I am indiscriminate and I can strike without warning. I not only kill but I destroy the lives of those that are left behind. I cause chaos and trauma. Those that have not come into contact with me are frightened to utter my name for fear that I will touch their lives. They don’t realise that the only way I can be stopped is to talk about me.

I am depression - I am suicide

Raise Awareness - Stop the Stigma
What is pain?

- Pain is perceived along a spectrum from peripheral pain receptors to the cerebral cortex and is modified at every step along its travel.
- Pain is an unpleasant, complex, sensory and emotional experience.
- Pain is a distressing experience for the patient.
- Pain is what the patient says it is.

Pain perception

- This occurs at different levels
  - thalamus is an important centre of pain perception
    - lesions of thalamus produces severe type of pain known as ‘thalamic pain’
  - Sensory cortex is necessary for the localisation of pain
  - Other areas are also important
    - reticular formation, limbic areas, hypothalamus and other subcortical areas

Fig. 1: The Continuum of Pain: Acute pain is transient; describes as chronic;
Perception of Pain...Numerous Variables
Highly Individualized
Some Opioid - Pain Myths

1-Everybody who uses opioids becomes addicted
2-”Your pain can’t be that bad”
3-High or increasing doses mean addiction
4-Addicts can never be prescribed opioids or controlled substances
5-Early refills mean you are abusing your meds
6-Relief from suffering is the same as getting high for fun
7-Going into withdrawal means you are addicted
8-Opioids are not effective for chronic pain
9-There are limits on how long opioids can be prescribed
10-Not being able to endure chronic pain is a weakness and never hurt anybody so you should always wait until the pain is unbearable to take pain meds
11-People with chronic pain problems can expect to be pain-free with opioids
12-All painful conditions should be treated with NSAIDS or Tylenol first
UNRELIEVED PAIN CAN CAUSE as MANY or MORE PROBLEMS as ADDICTION or Rx SIDE EFFECTS

INCREASE:
Use of NSAIDS (Ibuprofen-Naproxen-Voltaren-Celebrex) = >GI-Renal and Cardiac Px
Use of ACETAMINOPHEN (Tylenol, et.al.) = Liver Px
EMOTIONAL Px = Depression-Hopelessness-Give up-Anxiety-Resentment-Insomnia
               Made to feel like an “Addict” or “Criminal” when filling meds
ALCOHOL-DRUG USE = Self-medication esp. with Alcohol, Benzo’s and Marijuana
DEATH RATES = Pain Kills and Makes it OK to Die…Many “Suicides”-”Accidental OD”
               >Risk of Heart Attack-Stroke-High BP-Stress

DECREASE:
QUALITY of LIFE = Suffering…Weakness…<Mobility
WORK = Lost Wages…<Quality of Work
PLAY = >Relationship Issues…<Sex and Sex Play…<Energy…<Independence…Isolation
HEALTH = Pain Interferes with Healing…<Mobility…>Obesity…Muscle Atrophy

You will be seeing more clients in this category:
Aging Baby Boomers…Surgery/Injury/War/Disease Survivors
Most are not Addicts and will have a poor response to Treatment-AA-NA
Benefits of Properly Treated Pain

Quality of Life improves in many ways:

**WORK-SOCIAL:** Can get and keep a job…>Quality of work…>Skills…>Cooperation
  More Patience…Less Isolation…>Active in Community…>Friends

**FAMILY:** Respect…<Damaging Arguments…>Communication/Patience…Helpful…Fun

**PARTNER:** Intimacy…Sexual fun…Emotionally Available

**EMOTIONAL:** Less Depression…Improved Mood…Smile…Hope…Emotionally Attach

**HEALTH:** Less Stress-Agitation-Impulsive Anger-Fatigue…Improved Metabolic Process
  Improved Healing…< Muscle Atrophy…<Chance of Chronic Pain Syndrome

**BRAIN:** Function/Repair Improves…Improved Emotional Control…<Confusion

**ADDICTION:** Risks Decrease…Less “Aberrant” Behaviors/Self-Medication
“SILENT VICTIMS” of Rx Opioid Abuse

“Obvious Victims” include: Addict, Addict’s friends-co-workers-work quality

“Silent Victims” include legitimate pain patients that nobody hears about

Suffer from some type of painful disease state-trauma that they did not ask for

Stay hidden and powerless-Physically and financially unable to protest
Those who do protest are not taken seriously and perceived as “whining”

Have little or no ability to organize and powerless to challenge those who
demonize them. These are the victims of the “Anti-Opioid Cult”

Widespread media depiction of those who are prescribed opioids as “addicts
and criminals” has produced an unhealthy and inaccurate bias towards this
group

Now mostly considered “collateral damage”, “unfortunate casualty”, “Whiner”
“Anti-Opioid Cult”

Very dedicated and now powerful group of “experts” who seem to be on a mission to severely restrict, limit and virtually eliminate opioid prescribing with only lip service to the needs of those who suffer from painful conditions.

Most vocal group is Physicians for Responsible Opioid Prescribing = PROP

Very well organized and have developed “Friends in High Places”

The Major player in the recent “CDC Opioid Prescribing Guidelines” that has generated some well-earned controversy.

It will be prudent and advisable to exercise caution and a healthy dose of skepticism when reading their opinions and info.
Picking a Pain Medication—Judgement Call

Every Person is Different…Most will “Start Low-Go Slow”

Severity of Surgery-Trauma-Disease…Skill of Docs

ALWAYS “Get Ahead” of “Predictable Pain”

Principles of Analgesic Prescribing

- Analgesic Ladder
- Adjuvants -
  - TCA
  - Anti-convulsants
  - Anti-arrhythmic

STEP 1

- NSAID
- Non-opioid (paracetamol)
- Adjuvant Medication

STEP 2

- NSAID
- Non-opioid (paracetamol)
- Weak Opioid (codeine, tramadol)
- Adjuvant Medication

STEP 3

- NSAID
- Non-opioid (paracetamol)
- Strong Opioid (morphine, oxycodone)
- Adjuvant Medication

---

Step 1, Mild Pain (1-3/10 on pain scale)
Nonsteroidal anti-inflammatory drugs (NSAIDS) +/- adjuvants

Step 2, Moderate Pain (4-6/10)
- Acetaminophen or ASA
- Codeine
- Hydrocodone
- Oxycodone
- Dihydrocodeine
- Tramadol
  (non-opioid, opioid combinations)
  +/- adjuvants

Step 3: Severe Pain (7-10)
- Morphine
- Hydromorphone
- Methadone
- Levorphanol
- Fentanyl
- Oxycodone
- Non-opioid analgesics
  +/- adjuvants
# ACETAMINOPHEN vs NSAIDS vs OPIOIDS

## Table 1. Common Medications for Management of Pain

<table>
<thead>
<tr>
<th>Indications and Efficacy</th>
<th>Accessibility</th>
<th>Safety Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acetaminophen</strong></td>
<td>OTC and prescription</td>
<td>- Serious liver damage if more than directed is used. The FDA advises patients not to exceed the acetaminophen maximum total daily dose of 4 g/day.</td>
</tr>
<tr>
<td>- Has analgesic and antipyretic effects with no anti-inflammatory efficacy</td>
<td></td>
<td>- Acute overdose and chronic excessive ingestion of acetaminophen are the leading cause of acute liver failure in the United States.</td>
</tr>
<tr>
<td>- Indicated for mild to moderate pain, such as that caused by headaches, cold, influenza, muscle aches, sprains, backache (including low back pain), dysmenorrhea, minor arthritis pain, and toothaches</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Opioids</strong></td>
<td>Prescription only</td>
<td>- A significant risk of misuse, abuse, overdose, and death.</td>
</tr>
<tr>
<td>- Considered the most powerful or potent analgesics</td>
<td></td>
<td>- In 2009, &gt;475,000 emergency department visits resulted from misuse and abuse of prescription opioid painkillers.</td>
</tr>
<tr>
<td>- Generally reserved for patients with moderate to severe pain that is unresponsive to non-opioid therapies</td>
<td></td>
<td>- Overall, deaths from prescription opioid use outnumber those resulting from heroin and cocaine combined.</td>
</tr>
<tr>
<td><strong>NSAIDs</strong></td>
<td>OTC and prescription</td>
<td>- Serious cardiovascular, gastrointestinal, and renal adverse events that are dose-dependent.</td>
</tr>
<tr>
<td>- Have both analgesic and antipyretic effects, and anti-inflammatory efficacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Indicated in mild to moderate pain</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FDA indicates US Food and Drug Administration; NSAID, nonsteroidal anti-inflammatory drug; OTC, over the counter.
# Non-Steroidal Anti-Inflammatory Drugs

<table>
<thead>
<tr>
<th>NSAID Selectivity</th>
<th>Drugs</th>
<th>Notes</th>
</tr>
</thead>
</table>
| COX-2 Selective         | Celecoxib              | • Increased risk for CV events  
                           |                        | • Decreased risk for GI side effects                                |
| Semiselective           | Diclofenac  
                           | ____________________________ | • Increased affinity for COX-2 but still retain activity for COX-1  
                           | Etodolac                |                        | • Use with caution in patients at increased CV risk                |
                           | Indomethacin            | ____________________________ | • Diclofenac has demonstrated the highest CV risk of any of the nonselective NSAIDs |
                           | Meloxicam               | ____________________________ |                                                      |
                           | Nabumetone              | ____________________________ |                                                      |
                           | Piroxicam               | ____________________________ |                                                      |
                           | Sulindac                | ____________________________ |                                                      |
| Nonselective            | Ibuprofen              | • Decreased risk for CV events  
                           | ____________________________ | • Increased risk for GI side effects                              |
                           | Naproxen                | ____________________________ | • Naproxen has demonstrated the least CV risk compared to others   |
| Irreversible            | Aspirin                | • Cardioprotective at low doses  
                           | Nonselective             | ____________________________ | • Increased risk for GI side effects                              |

NSAIDs are associated with the risk of serious upper GI complications, hospitalisation and mortality:

- Non-selective NSAIDs account for approximately 20–25% of all reported drug adverse events.
- 80% of peptic ulcer-related deaths occur in non-selective NSAID users.
- In the USA, NSAID use accounts for approximately 107,000 hospitalisations and 16,500 deaths per year.

---

### Renovascular Effects of NSAIDs & COX-2 Inhibitors

![Diagram of Renovascular Effects](image)

**FDA BLACK BOX WARNING**

[NSAID] may cause an increased risk of serious cardiovascular thrombotic events, myocardial infarction, and stroke, which can be fatal. This risk may increase with duration of use. Patients with cardiovascular disease or risk factors for cardiovascular disease may be at greater risk.
Acetaminophen=Paracetamol=APAP=Tylenol

**Acetaminophen**

- **Use**
  - For mild-to-moderate pain
  - Efficacy comparable to NSAIDs in some musculoskeletal conditions
  - Common combination drug (eg, hydrocodone)
- **Safety**
  - Few adverse effects
  - Hepatic toxicity possible at high doses (> 4 g/d) or with chronic alcohol abuse
- **Dosage**
  - Up to 4 g/d in divided doses; lower dose in elderly, dehydration or liver disease

**Table 3. Recommended Maximum Daily Doses of Acetaminophen**

- For adults and children over age 12 years, no more than 325 to 650 mg acetaminophen every 4 to 6 hours (immediate-release products) and no more than 1,300 mg acetaminophen every 8 hours (extended-released products)
- The maximum dose of acetaminophen is 4,000 mg in 24 hours for the 325-mg strength products, 3,000 mg in 24 hours for the 500-mg strength products, and 3,900 mg in 24 hours for the 650-mg strength products
- For children ages 2 to 12 years, a dose of 10 to 15 mg/kg every 4 to 6 hours is recommended. Children should not receive more than 5 doses in 24 hours.

Based on references 18-20.

**Acetaminophen Toxicity**

- **Renal**
  - Chronic renal failure - 2.5 risk increase with regular use
- **Hepatic**
  - Isolated doses > 4 gm may be toxic
  - Repeated therapeutic doses ≤ 4 gm in patients without risk factors can be toxic

---

Adjuvant Meds...”Add-Ons”

### Adjuvants
- An adjuvant is a medication that is not primarily indicated for the treatment of pain, but which has some evidence for chronic pain management
  - Tricyclic antidepressants
  - SNRIs (selective serotonin reuptake inhibitors)
  - Anticonvulsants
  - Topical agents

#### TABLE 33-5
Adjuvant Medications for Pain Management

<table>
<thead>
<tr>
<th>Medication</th>
<th>Type of Pain</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tricyclic antidepressants</td>
<td>Neuropathic pain frequently described as dull, aching, or throbbing</td>
<td>• Mood elevation, enhancement of opioid analgesia, direct analgesic effects</td>
</tr>
<tr>
<td>Amitriptyline</td>
<td></td>
<td>• Anticholinergic side effects: dry mouth, constipation, urinary retention</td>
</tr>
<tr>
<td>Doxepin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imipramine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trazodone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anticonvulsants</td>
<td>Neuropathic pain frequently described as sharp shooting, burning, or lancinating</td>
<td>• Suppresses the spontaneous neuronal firing as sharp, that causes this type of pain</td>
</tr>
<tr>
<td>Carbamazepine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phenytoin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clonazepam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corticosteroids</td>
<td>Pain due to cerebral or spinal cord edema or that in peripheral nerves caused by perineural edema</td>
<td>• Mood elevation, strong anti-inflammatory activity, appetite stimulation</td>
</tr>
<tr>
<td>Dexamethasone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prednisone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antihistamine</td>
<td>Pain or nausea in the anxious client</td>
<td>• Relief of complicating symptoms including anxiety, insomnia, nausea, and pruritus</td>
</tr>
<tr>
<td>Hydroxyzine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuroleptic</td>
<td>Alternative analgesic for clients who are opioid-tolerant or have opioid-limiting side effects, especially constipation</td>
<td>• Antiemetic and anxiolytic.</td>
</tr>
<tr>
<td>Methotrimeprazine</td>
<td></td>
<td>• This is the one phenothiazine to date that has demonstrated analgesic properties: methotrimeprazine 15 mg IM was found to be equivalent to morphine 10 mg IM</td>
</tr>
<tr>
<td>Psychostimulants</td>
<td>Continued pain with opioid-induced sedation</td>
<td>Improves opioid analgesia and decreases sedation</td>
</tr>
<tr>
<td>Dextroamphetamine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methylphenidate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DrugBrand</th>
<th>DrugGeneric</th>
<th>Weighted Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nardil</td>
<td>Phenelzine</td>
<td>1.25</td>
</tr>
<tr>
<td>2. Parnate</td>
<td>Tranclypromine</td>
<td>1.23</td>
</tr>
<tr>
<td>3. Anafranil</td>
<td>Clomipramine</td>
<td>1.22</td>
</tr>
<tr>
<td>4. Emsam</td>
<td>Seligiline</td>
<td>1.07</td>
</tr>
<tr>
<td>5. Serzone</td>
<td>Nefazodone</td>
<td>1.06</td>
</tr>
<tr>
<td>6. Tofranil</td>
<td>Imipramine</td>
<td>1.04</td>
</tr>
<tr>
<td>7. Lexapro</td>
<td>Escitalopram</td>
<td>1.02</td>
</tr>
<tr>
<td>8. Prozac</td>
<td>Fluoxetine</td>
<td>1.02</td>
</tr>
<tr>
<td>9. Ceflexa</td>
<td>Citalopram</td>
<td>1.02</td>
</tr>
<tr>
<td>10. Norpamin</td>
<td>Desipramine</td>
<td>1.01</td>
</tr>
<tr>
<td>11. Zoloft</td>
<td>Sertraline</td>
<td>1.01</td>
</tr>
<tr>
<td>12. Elavil</td>
<td>Amitriptyline</td>
<td>0.98</td>
</tr>
<tr>
<td>13. Pamelol</td>
<td>Noroptyline</td>
<td>0.98</td>
</tr>
<tr>
<td>14. Wellbutrin</td>
<td>Bupropion</td>
<td>0.97</td>
</tr>
<tr>
<td>15. Remeron</td>
<td>Mirtzapine</td>
<td>0.94</td>
</tr>
<tr>
<td>16. Effexor</td>
<td>Venlafaxine</td>
<td>0.94</td>
</tr>
<tr>
<td>17. Pristiq</td>
<td>Desvenlafaxine</td>
<td>0.93</td>
</tr>
<tr>
<td>18. Ablify</td>
<td>Aripiprazole</td>
<td>0.91</td>
</tr>
<tr>
<td>19. Paxil</td>
<td>Paroxetine</td>
<td>0.91</td>
</tr>
<tr>
<td>20. Cymbalta</td>
<td>Duloxetine</td>
<td>0.90</td>
</tr>
<tr>
<td>21. Seroquel</td>
<td>Quetiapine</td>
<td>0.89</td>
</tr>
<tr>
<td>22. Brintellix</td>
<td>Vortioxetin</td>
<td>0.86</td>
</tr>
<tr>
<td>23. Vilbryl</td>
<td>Vilazodone</td>
<td>0.86</td>
</tr>
</tbody>
</table>
Common Side-Effects of Antidepressants

Top 10 Adverse Reactions
(Click on Chart for Full List)

- Drug Withdrawal Syndrome
- Drug Exposure During Pregnancy
- Suicidal Ideation
- Depression
- Insomnia
- Anxiety
- Headache
- Nausea
- Dizziness
- Drug Ineffective

Of Medicated Respondents:

- 65.7% Reported sexual side effects
- 23% Were unsure
- 11.3% Reported no sexual side effects

Side Effects of Antidepressants

- Headache
- Sedation
- Dry Mouth
- Blurred Vision
- Sexual Dysfunction
- Nausea
- Fatigue
- Agitation
- Insomnia
- Weight Gain

Antidepressant induced Sexual Dysfunction

Incidence
- Overall frequency 30-50%.
- Incidence seems the highest with SSRIs/SNRIs (mainly paroxetine and fluoxetine) and the lowest with bupropion and mirtazapine.

Pathophysiology
- Serotonin is mainly an inhibitory neurotransmitter in the CNS

Symptoms and signs
- In males: erectile dysfunction, priapism, delayed ejaculation
- In females: decreased vaginal lubrication and clitoral congestion
- In both sexes: decreased libido, partial or complete anorgasmia (Excitement)

Therapy
- Reduction to minimal effective dose *(often difficult to find)*
- Changing antidepressant
- Adding drugs which improve sexual function (sildenafil, dextroamphetamine, methylphenidate, amantadine, etc)
## Non-Drug Choices

### Table 1 – Managing low back pain: Nonpharmacological conservative measures

<table>
<thead>
<tr>
<th>Physical measures</th>
<th>Stimulation techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity modification</td>
<td>Acupuncture</td>
</tr>
<tr>
<td>Bed rest</td>
<td>Transcutaneous electrical nerve stimulation</td>
</tr>
<tr>
<td>Exercise</td>
<td>Percutaneous electrical nerve stimulation (electroacupuncture)</td>
</tr>
<tr>
<td>Range of motion</td>
<td>Psychological interventions</td>
</tr>
<tr>
<td>Strengthening</td>
<td>Biofeedback</td>
</tr>
<tr>
<td>Aerobic</td>
<td>Behavioral therapy</td>
</tr>
<tr>
<td>Local heat</td>
<td>Multidisciplinary rehabilitation</td>
</tr>
<tr>
<td>Superficial (hot packs)</td>
<td>Back school</td>
</tr>
<tr>
<td>Deep (ultrasonography or diathermy)</td>
<td>Functional restoration</td>
</tr>
<tr>
<td>Local cold</td>
<td></td>
</tr>
<tr>
<td>Manual therapies</td>
<td>Other</td>
</tr>
<tr>
<td>Spinal manipulation</td>
<td>Yoga</td>
</tr>
<tr>
<td>Massage</td>
<td>Lumbar supports</td>
</tr>
<tr>
<td>Mobilization techniques</td>
<td>Traction</td>
</tr>
<tr>
<td>Other soft tissue techniques</td>
<td></td>
</tr>
</tbody>
</table>
OPIOIDS...Friend or Foe?
How Opioids Work
Decrease Perception of Physical and Emotional Pain
Message is Altered...Not as Important...”Don’t Care”
Other Opioid Side Effects

- Ileus/Constipation
- Nausea/Vomiting
- Sedation/Resp Depression
- Cough suppression
- Confusion/Delirium
- Pruritus
- Dry mouth
- Sweats
- Urinary retention
- Tolerance/Dependence

Post Acute Withdrawal Symptoms (PAWS)

- Inability to think clearly
- Memory problems
- Emotional overreactions or numbness
- Sleep disturbances
- Physical coordination problems
- Stress Sensitivity

What is meant by sexual dysfunction?

Sexual dysfunction could affect any of the following phases of the sexual response cycle:

- Desire → decreased libido
- Arousal/ erection → erectile dysfunction
- Orgasm → anorgasmia
- Ejaculation → Delayed ejaculation

(Addante, R.J. et al., 2012, Neuropsychologia)
OD DEATH IS POSSIBLE, SO WHO DIES?

Over 99% of the deaths that are classified as being “Opioid-Related” occur with those who use opioid meds for recreation or suicide.

Deaths from taking opioids as directed by your doc are virtually non-existent, occurring mostly via known drug interactions or some other contributing factor/disease state.
OPIOIDS...Risks vs Benefits

- Analgesia
- Functional Status
- No "Ceiling Effect"
- Short- and Long-Acting Forms

Sedation & Respiratory Depression
Constipation
Physical Dependence
Worsening Pain
Addiction
Overdose
Collateral Risk (child ingestion)

RISKS

CHRONIC
OPIOID
THERAPY

BENEFITS

Opioids in Chronic Pain Management
- Benefits and Risks
- Side effects: constipation, sleep disruption, altered mental status, itching, nausea, respiratory depression
- Addiction vs. Dependence
- Assessing whether medication improves quality of life and participation in life or diminishes them

Differences Between a Chronic Pain Patient and an Addicted Patient

<table>
<thead>
<tr>
<th>Pain Patient</th>
<th>Addicted Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Not out of control with medications</td>
<td>1. Out of control with medications</td>
</tr>
<tr>
<td>3. Will want to decrease medication if side effects are present</td>
<td>3. Medication continues or increases despite side effects</td>
</tr>
</tbody>
</table>


Treating Pain with Opioids: What Can We Expect to Achieve?

- Reduction in pain and suffering
  - Meaningful pain reduction (Analgesia; Pain)
  - Acceptable side effects (Adverse effects; Price)
- Improved functionality
  - Meaningful functional improvement (Activities; Performance)
  - No unacceptable aberrant behavior (Aberrant behavior; "Pee"

The 4 A’s (Passik); the 4 "P’s"
Risk Factors mean Careful Monitoring But Does Not Rule Out Use of Opioids

Table 3. Risk Factors for Opioid Misuse

- Family history of substance abuse
- Personal history of substance abuse
- Young age
- History of criminal activity and/or legal problems, including charges of driving under the influence (DUI)
- Regular contact with high-risk persons or environments
- Problems with previous employers, family members, and friends (eg, mental disorder)
- Risk-taking or thrill-seeking behavior
- Heavy tobacco use
- History of severe depression or anxiety
- Psychosocial stressors
- Previous drug and/or alcohol rehabilitation

Approach to the Patient with High Opioid Risk

- Be nonjudgmental in all interactions
- Take a risk vs benefit approach in explanations for further treatment options
- Show a commitment to continue to work with the patient for pain control whether opioids are used or a non opioid approach will be taken
- Make appropriate referrals and schedule careful follow-up
Why Abuse?

**EUPHORIA:** Feels VERY Good...Far Beyond Normal Pleasure

**ADDICTION:** Euphoria becomes Emotional Important

**AVOID W/D:** Nasty...Afraid to Quit...Physical Dependence NOT Addiction

**EMOTIONAL ISSUES:** Dysphoria...Depression...Dysthymia...Anxiety...Emotional Agony

**THESE PEOPLE CAN QUICKLY “FALL in LOVE” with OPIOID “Relief”**

**ENDORPHIN ISSUES:** Born this way or Damaged by High-Dose Opioids?...Depression

These people feel “Normal” when using so it “Makes Sense”

**UNDERTREATED PAIN:** Toxic Abnormal State and will do anything for “Relief”

Opiophobia...Physical Dependence NOT Addiction...Bias
Terminology

NARCOTIC:
Legal = “Opium / derivatives and their semi/fully synthetic derivatives as well as Cocaine, Coca leaves, Cannabis, Methamphetamine and Barbiturates”
Not a synonym for “Opioid”…Use demonstrates Bias-Stigma-Poor Understanding

Linked to...Contributed to...Associated with or Increased risk of

DOES NOT MEAN:
Died because of...Killed by or Cause of Death

Misleading but commonly used terms to describe “Opioid Deaths” and create headlines.
~ 90% of deaths where opioids were found ALSO involved Alcohol, Benzodiazepines and meds used for Depression/Bipolar or pain

Doesn’t even mean that opioids were found on Toxicology report
1-Non-Pharmacologic and Non-opioid therapies are preferred for chronic pain. Consider adding opioids only if benefits outweigh risks.

2-Establish realistic Tx goals for pain and function and how opioids will be D/C if they don’t work. Continue only if there is meaningful improvement that outweighs risks to patient safety.

3-Discuss known risks and realistic benefits of opioid therapy along with the responsibilities of patient and doctor.

4-Immediate release opioids should be used to start opioid therapy – not extended release products

5-Lowest effective dose should be prescribed when opioids are started. Additional caution should be used when doses > 50 MMQ and use above 90 Morphine Milligram Equivalents should be avoided.

6-For acute pain, Lowest effective opioid dose should be used. Prescribe no more than needed-3 days or less are usually sufficient

7-Benefits and harms should be evaluated within 1-4 weeks of starting opioid therapy for chronic pain, then every 3 months or less
If benefits do not outweigh harms then doctors should work with patient to < dosage and D/C opioids

8- Doctors should evaluate risk factors for opioid related harms. If risks are high, Naloxone should be offered

9-Use PDMP to determine if patient id being prescribed dangerous combinations of other opioids or controlled substances.

10-Give a UDS when starting opioids for chronic pain and at least annually thereafter to check for illicit or non-prescribed drugs.

11-If possible doctor should avoid prescribing opioids for those taking benzodiazepines.

12-For those with Opioid Use Disorder doctor should arrange/offer evidence based Tx, usually MAT in combo with behavioral therapies
Quality of Evidence = Low to Very Low ???

**Quality of Research = Quality of Evidence**

The “quality of evidence” is the confidence that you have that the direction and the magnitude of the estimated effect are correct.

<table>
<thead>
<tr>
<th>Quality of evidence</th>
<th>Suggested implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Further research is unlikely to change the confidence in an estimated effect; we are confident that we can expect very similar effect in a population for which the recommendation is intended</td>
</tr>
<tr>
<td>Moderate</td>
<td>Further research is likely to have an important impact on the confidence in an estimated effect and may change that estimate</td>
</tr>
<tr>
<td>Low</td>
<td>Further research is very likely to have an important impact on the confidence in an estimated effect and is likely to change that estimate</td>
</tr>
<tr>
<td>Very low</td>
<td>Any estimate of an effect is very uncertain</td>
</tr>
</tbody>
</table>
CDC REPORTS...2014

~14,000=Involved Opioid pain relievers or Opioids Contributed to death

“Deaths involving both illicit and Rx drugs are included in BOTH categories”
This means that BOTH categories have inflated numbers (>50% have both)

Blood levels varied with each individual and MOST (~80%) died from a lethal COMBINATION of drugs. Any trends calculated from this data should be considered “DEATHS CAUSED BY DRUG COMBINATIONS”

“When multiple drugs are found in autopsy toxicology reports, the most likely cause of death will be the accumulated damage of combination drug use-NO SPECIFIC DRUG CAN BE BLAMED FOR THIS”
“These results should be interpreted with caution for several reasons

“The accuracy of the findings depends on the accurate categorization of overdose as a cause of death on death records”

“Similarly, it is possible that growing awareness of overdose as a public health Px may increase the likelihood that deaths are categorized as overdoses”

“Additionally the available data from CDC do not allow for determination of the extent to which the overdose was due to specific substances”

“More broadly the observational nature of these analyses does not allow for the determination of what specifically caused the increased rates of overdose...”
The CDC Numbers Are: (1\textsuperscript{st} #=2014...2\textsuperscript{nd}=2013...3\textsuperscript{rd}=2008)

23,100...22,700...27,153 = Deaths from ALL Rx Meds

14,000...16,235...14,800 = “Deaths” from “Rx Opioids”

9000...9000...9000 = Involved Morphine-Hydrocodone-Oxycodone

3400...4500...5000 = Involved Methadone

750...700...800 = Involved “Other Rx Opioids”

21,000...14,000...8500 = Deaths-ALL Illicit Drugs

5000...5000...5100 = Involved Cocaine

10,500...8500...3000 = Involved Heroin

5600...500...400 = Involved “Other Illicit Drugs”

• Includes Suicides and “Double Counts”

Morphine is a metabolite of Codeine-Morphine and Heroin therefore there is often uncertainty about the drug involved when this is found

TOTAL “DEATHS”: 2008 = 24,000.........2013 = 30,000.........2014 = 35,000

• “Deaths from Rx opioids now exceed deaths from heroin and cocaine combined
To put things in perspective…

There were approximately 2.5 million deaths in the US in 2014

~14,000 “Opioid” Deaths = 0.5% of Deaths  ~20,000 NSAID Deaths

~9000 Morphine-Hydrocodone-Oxycodone deaths = 0.4% of Deaths

~3-5000 Actual “Rx Opioid Only” Recreational Deaths = 0.1% of Deaths*

~500,000 Tobacco and Alcohol Deaths = 20% of deaths

There were ~ 256 million Rx for Opioids = Death rate of 0.000019 per Rx

100,000 Rx med Deaths-Any Cause  40,000 “Known Suicides”

So which “epidemic” is causing the most harm and costing the most money and which creates Drama - Fear and Demons

*~80% of opioid deaths involve another “contributing” drug
WE MUST REMEMBER…

Over 99% of the deaths that are classified as being “Opioid-Related” occur with those who use opioid meds for recreation or suicide.

Deaths from taking opioids as directed by your doc are virtually non-existent, occurring mostly via drug interactions or some other contributing factor/disease state.

We cannot same the same for NSAIDS!
Rx Opioid ‘Epidemic’

- Tobacco: 400
- Diet/activity patterns: 300
- Alcohol: 100
- Microbial agents: 90
- Toxic agents: 60
- Firearms: 35
- Sexual behavior: 30
- Motor vehicles: 25
- Illicit use of drugs: 20

Number of deaths (thousands)
Opioid Prescribing Criteria

Use the same criteria and standard of care you use for any other medication:
1= What are the potential BENEFITS vs. RISKS
2= Determine BEST MED for the person in front of you then INDIVIDUALIZE Tx
3= MONITOR and ADJUST to maximize benefits and minimize risks

The most Important questions that should be asked are:
“Are you getting better or worse”…”Is this helping more than harming”…
“Do YOU want to continue with this therapy”

Monitor Stages of Recovery, Set clear boundaries, Give accurate info,
Monitor emotional state, UDS may be helpful, “Pain-Free” is a myth

It is vital to understand that most chronic pain sufferers would be happy if an aspirin controlled their pain and they would not HAVE to take opioids for relief!!

Treat all conditions concurrently

These folks are not looking for euphoria, just some relief
Addiction = Brain Disease - Loss of Control

Pleasure + Emotional Attachment
Under Subconscious-Limbic Control
Physical Dependence is not Addiction

Can Co-Exist or Exist Independent of Each Other

Infants - Never born addicted to anything but can be Physically Dep.

Buprenorphine - Methadone MAT Produce Physical Dependence

ADDICTION VS. DEPENDENCE

• It is possible to be dependent on a drug without being addicted. Although, if one is addicted they are most likely also dependent.

• For example; A terminal cancer patient being treated with morphine for pain will experience withdrawal if the drug is stopped, but they are not a compulsive user of the drug therefore they are not addicted.
Physical Dependence

Distinguishing Dependence, Tolerance, and Addiction

- Physical dependence: withdrawal syndrome arises if drug discontinued, dose substantially reduced, or antagonist administered.
- Tolerance: more drug needed to maintain therapeutic effect, or loss of effect over time.
- Pseudoaddiction: behavior suggestive of addiction, but due to non-optimal dose or dosing schedule.
- Addiction (psychological dependence): psychiatric disorder characterized by continued compulsive use of substance despite harm.
Pseudo-Addiction or Abuse

Group of behaviors that are caused by poorly controlled pain.
At first glance it looks like “Aberrant Drug-Seeking Behavior”. Source of many Pain Myths
In reality it occurs when the person will do almost anything for relief of pain…
Px disappear if pain is better controlled. Educate patient: ”Pain-Free is Impossible”
Such lists are better suited to evaluate pain control than to ID “Aberrant Behaviors”

DRUG HOARDING = Fear of running out…Saves meds for worst pain or to abuse?
UNAUTHORIZED DOSE INCREASES-EARLY REFILL = Tolerance…Disease Progression
MULTIPLE Dr’s = “Dr. Shopping?”…Poor Tx…Insurance Px
INTERNET-STREET PURCHASES = Inadequate pain control…ALWAYS a BAD CHOICE
ALCOHOL-’WEED USED for PAIN = Inadequate pain control…ALWAYS a BAD CHOICE
TRADES MEDS = Not good but doesn’t tell you much…Common in many families
DEMANDS = More/Different/Specific Brand Meds…Desperate for relief
PAST Hx of ABUSE = Very Poor Pain Indicator…Bias without Justification…Abusers have legit pain too
CLOCK-WATCHING = Effort to comply with Directions…Sign of breakthrough pain
MANIPULATION- LYING = Learn what will give them relief
NON-PAIN RELATED OPIOID USE = Sleep Issues…Futile attempt to treat depression
ENJOYS MEDS = Relief makes you feel better…Getting High or Decreases Suffering?
ALWAYS TIRED = Dosage too high…Takes energy to deal with pain…Poor Sleep/Rest
MOOD SWINGS = Pain makes you ill/Resentful…”Why grumpy old men are grumpy”
GETS SICK if DOSE is MISSED = This is PHYSICAL DEPENDENCE and is normal and expected
Doctor Issues

Fear of arrest – Board Discipline – Labeled as “Dope Doc”

“War on Drugs” has become a “War on Docs and Pain Patients”

Opiophobia = Fear that patient will become addicted

Severe Confusion between “Addiction” and “Physical Dependence”

Believes media headlines instead of reading the “Fine Print”

Failure to consider “Quality of Life Improvements” over High Dosage

Confusing “Guidelines” from different agencies
So What Do You Do?

Each person is different and will require **highly individualized** therapy (“Pain Study Criteria” will never match the person in front of you)

Openly address: Addiction, Expectations, Co-Occurring Issues, Goals, Diversion.

Possible Benefits/Risks evaluated equally. No “Scare Tactics”

Secure meds. Don’t share your medical conditions. Take meds on a set schedule.

Evaluate progress and make adjustments to reduce negative effects. Deal with “Aberrations” fairly. Make adjustments-Increase monitoring

**DO NOT TERMINATE** because the patient is not “perfect”.

**DOCUMENT EVERYTHING. BE PATIENT.**

DON’T make things worse by “Over-reacting” if things do not go well
“Happy” Endings Are Possible

Realistic Goals

- Shared goals of treatment
- Complete pain relief rarely achieved
- Common goals include:
  - pain reduction
  - improvement in selected areas of function
  - improved mood
  - improved work

Summary

- Opioids are efficacious
- Persistent moderate-to-severe pain, unresponsive to nonopioid analgesics and adjuvants, warrants a trial of opioids.
- Opioid treatment should include setting realistic goals, a collaborative physician-patient relationship, patient education, ongoing documentation and reassessments, and a clearly defined exit strategy.
Thank You !!!

That’s all Folks!