Medical cannabinoids

- Cannabinoids are a group of active compounds found in marijuana.
- Tetrahydrocannabinol (THC) and Cannabidiol (CBD) are the most well-known cannabinoids.
- Selective cannabinoids used clinically:
  - Dronabinol/Nabilone: synthetic form of THC.
  - Nabiximols contains a standardized extract of THC, the non-psychoactive CBD.
State laws on marijuana

Marijuana Legalization Status
- Medical marijuana broadly legalized
- Marijuana legalized for recreational use
- No broad laws legalizing marijuana

Current as of September 14, 2017
Conclusion: The available evidence to support or discourage the use of cannabinoids for neuropathic pain remains weak.
Drugs involved in U.S. overdose deaths, 2000 to 2016

- Methadone: 3,280
- Meth.: 7,660
- Cocaine: 10,600
- Prescription opioids: 14,400
- Heroin: 15,400
- Fentanyl and fentanyl analogues: 20,100
Some states have more painkiller prescriptions per person than others.

Safe opioid use
<table>
<thead>
<tr>
<th>Side Effect</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nausea and vomiting</td>
<td>Antiemetics, metoclopramide, anticholinergics, opioid rotation</td>
</tr>
<tr>
<td>Pruritus</td>
<td>Antihistamines, opioid antagonists, propofol or 5-HT₃ antagonists, nonpharmacological treatments</td>
</tr>
<tr>
<td>Sedation</td>
<td>Discontinuation of other sedating medications; opioid rotation, psychostimulants, donepezil</td>
</tr>
<tr>
<td>Myoclonus</td>
<td>Opioid rotation, benzodiazepines, skeletal muscle relaxants</td>
</tr>
<tr>
<td>Delirium</td>
<td>Opioid rotation, haloperidol, benzodiazepines, anticholinesterase</td>
</tr>
<tr>
<td><strong>Respiratory depression</strong></td>
<td>Naloxone (emergency situations only)</td>
</tr>
<tr>
<td>Constipation</td>
<td>Prophylactic treatment with a stool softener and bowel stimulant, nonabsorbable laxative (lactulose, polyethylene glycol), metoclopramide, opioid antagonists</td>
</tr>
<tr>
<td>Long-term side effects</td>
<td>Abnormal pain sensitivity: reduce opioid dose? Hypogonadism: testosterone or estrogen replacement</td>
</tr>
</tbody>
</table>
Pain psychology

- Depression, anxiety and stress are common comorbidities in patients with chronic pain and can negatively affect the outcome of treatment.

- Established evidence shows that cognitive behavioral therapy and self-regulation are safe and effective in chronic pain management.

- However, there are barriers to accessing pain psychology services, including inadequate insurance coverage, lack of qualified local pain psychologists and patient reluctance.
Online Cognitive Behavioral Therapy with Open Access

Managing Chronic Pain
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Pain and Stress
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Changing the Channel
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Pacing
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- Google: *UCSF Pain*
- Click on “Pain Medicine- UCSF Department of Anesthesiad”
- Click on “For Patients” on the left side column
- Under “For Patients” click on “Conditions/Treatments”
- Scroll down until you see ‘Pain Psychology – Patient Education Videos’
Thank You!