Symptom Benefits of Cannabis
Medical Cannabis Use in Cancer

- Average age 59 years
- 54% female
- 26% previous recreational users
- Symptoms - sleep (78%), pain (78%), weakness (73%), nausea (65%), anorexia (49%)
- Discontinuation -19% by 6 months
- Most - subjective improvement (96%)

NAUSEA
Nausea-Chemotherapy

• 30 RCT
• NNT nausea - 6
• NNT vomiting - 3
• Nabilone > prochlorperazine, domperidone, alizapride
• THC = metoclopramide, haloperidol, chlorpromazine
• THC did not add to ondansetron as prophylaxis
• Mechanism - 5HT3 receptor antagonist

Tramer, (2001). *BMJ* 323;16-21
Nausea-Chemotherapy

- Rotation to smoked cannabis from THC
- Response 25% Dose
- Nabilone 1-2mg twice daily
- Dronabinol 5mg q2-4h

Management of CINV

- Olanzapine, NK1 inhibitors, 5HT3 receptor antagonists, corticosteroids
- Little mentioned or rescue
- Paradoxical hyperemesis may mimic CINV
- Pain trials in cancer had emesis as S/E of cannabis

Advanced Cancer

- Case report GI metastases
- Isolated case series
- No RCT

ANOREXIA
Anorexia

- Reduced food intake, early satiety, diurnal intake variations, hypogeusia & dysgeusia

- D-RCT: 3 arms - megestrol acetate, THC, combination

  75% megestrol v 49% THC

  - Cannabis did not add to megestrol

Anorexia

- Cannabis-In-Cachexia Group
- RCT: 3-arm, placebo, THC, THC/CBD
- Results- No improvement in appetite, nausea, wt, QOL

Dysgeusia

- D-RCT: 2-arm placebo v dronabinol 2.5mg bid
- Dronabinol improved taste, pre-meal appetite, increased calories from protein

Brisbois (2011) Ann Oncol
Survey Medical Cannabis: Appetite in Cancer

- Prospective survey in 8 adult outpatient and/or cancer services
- 204 patients
- Results
  - 13% use cannabis
  - 71% preferred tablets or capsules
  - 42% would use spray
  - 41% would used vaporized
  - 6% believed cannabis will cure cancer

ANXIETY
Anxiety

- Meta-analysis - 5 RCT, 38 patients and 44 healthy individuals
  - Nabilone 1mg bid reduced anxiety
  - Cannabidiol reduced anxiety from THC
  - Cannabidiol 600mg (relative to placebo) reduced social anxiety disorders

Bergamaschi. (2011). *Neuropsychopharmacology*
Zuardi (1982). *Psychopharmacology (Berl)*
Depression

- Meta-analysis

- 5 RCT in patients without cancer found cannabis “no better than placebo”

Whiting, (2015) JAMA
Psychotic Symptoms
Psychotic Symptoms

• RCT: cannabidiol 200-800mg/d v amisulpride

• Brief Psychotic Rating Scale

• Results - equal efficacy

  - fewer side effects with cannabidiol
  - smaller weight gain
  - less prolactin elevation
  - fewer e/p side effects

  Rohleder, (2016), Front Pharmacol
Sleep and Insomnia
Sleep and Insomnia

• Cannabis reduces sleep latency; increases slow wave sleep
• Habituation & tolerance develop
• Cannabis withdrawal: vivid dreams, insomnia
• Often leads to relapse in cannabis use disorder

Babson, (2017), Curr Psychiatry Rep
Sleep and Insomnia

• Meta-analysis 19 studies with sleep one outcome + 2 with sleep as the primary outcome

• Results: Sleep improved in most trials

• In pain trials improved sleep may be the indirect analgesic effect

Whiting, (2015), JAMA
Insomnia and Sleep

• Cannabidiol improves REM behavior disorders

• Nabilone improves PTSD-related nightmares

• Nabiximols improves sleep in chronic pain

Insomnia and Sleep

- Association between multiple medical conditions, psychiatric illness, narcolepsy, obstructive sleep apnea

- Individuals on THC more likely to have narcolepsy

- Cannabidiol counteracts THC somnolence and may counter daytime somnolence

Murillo-Rodriguez (2014) *Curr Neuropharmacol*
Insomnia and Sleep

- THC blocks serotonin induced obstructive sleep apnea in animals.
- Dronabinol 2.5 - 5mg reduces apnea in adults with obstructive sleep apnea.

Prasad, (2013) Front Psychiatry
Sleep, Pain, Cannabis Use

- Sleep problems in patients with pain commonly associated with cannabis use
- 59% in chronic pain meet criteria for a sleep disorder
- 86% attribute sleep disorder to pain
- 80% in pain who use cannabis use it for sleep disturbances
- 65% who abstain will develop sleep-related cannabis withdrawal symptoms

SEIZURES
Seizures

- High quality randomized trials of cannabidiol
- Reduces seizures
- Direct effect or indirect by increasing clobazam metabolite n-desmethylclobazam
- Will cannabidiol become an antiseizure medication for acquired seizure disorders?

SUMMARY

- Widespread “Medical” Use
- CINV
- Anorexia
- Dysgeusia
- Anxiety
- Depression
- Psychosis
- Sleep
- Seizures