Medical Cannabis (Marijuana)

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NY Spine & Wellness Center
A 78 yo male patient with long history of chronic knee pain who is 4 years s/p knee replacements inquires about medical cannabis. Doesn’t want the feel like he did in the 1960’s.
Endocannabinoid System (ECS)

ECS= internal homeostatic regulatory system that influences multiple physiological processes

- Pain
- Seizure threshold
- Appetite
- Digestion
- Mood
- Immunologic

http://herb.co/2016/07/07/benefits-of-medical-cannabis/
Cannabis: Group of Flowering Plants

*Cannabis sativa* has multiple unique compounds, which are called cannabinoids or phytocannabinoids, such as:

- delta-9-tetrahydrocannabinol (THC)
- tetrahydrocannabivarin (THCV)
- cannabidiol (CBD)
- cannibichromene (CBC)
- cannabigerol (CBG)

https://www.seedsupreme.com/blog/flowers-n-buds/
Therapeutically, the most active phytocannabinoids are
Terpenes (terpenoids)

- Aromatic compounds produced in the glandular part of the plant
- Responsible for fragrant odor of plants
- Contribute to the modulating of cannabis medicinal effect
- Also have their own anti-inflammatory, analgesic, sedative, and antibiotic effects
Entourage Effect

- All components of the cannabis plant have some therapeutic effect.
- However, the sum effect is greater than each individual's effect combined.
- CBD slows the breakdown of THC, allowing therapeutic effects to last longer.

1 + 1 + 1 = > 3

https://www.reddit.com/r/CBD/comments/6do7il/the_entourage_effect_is.probably.the.single.most/
The same patient inquires about the history of medical cannabis in NYS
Beginning March, 2016, the Health and Medicine Division of the National Academies of Sciences conducted a comprehensive review of literature examining the health effects of cannabis products.
Medical Conditions Amenable to Medical Cannabis

- Chronic pain
- Spinal cord injury with spasticity
- Cancer
- Epilepsy
- HIV/AIDS
- Inflammatory Bowel disease
- Neuropathy
- Parkinson's Disease
- Huntington’s Disease
- Multiple sclerosis
- Amyotrophic lateral sclerosis
- PTSD
Modulation of physiological functions by cannabis

- Anti-inflammatory properties
- Analgesic activity
- Antidepressant activity
- Cytotoxic activity in certain cancer development
  - Gastric CA, colon CA, prostate CA, breast CA, human epithelioid CA
- Anti-spasm medicine by inhibiting GABA uptake
- Antifungal activity
- Decrease psoriasis by inhibiting keratinocyte proliferation
- Anticonvulsant properties
- Promotes bone healing
45 yo female patient with failed back surgery syndrome. She has a strong family history of addiction and overdose. She wants to avoid opioids because of the toll they have taken on her family. You bring up the possibility of medical marijuana but she has significant reservations.
Marijuana addiction

Diagnosable disease in DSM-5

Significant change in brain chemistry of the teenage brain—During adolescence the brain is particularly sensitive to drug exposure, and marijuana use impacts how connections are formed within the brain. Other effects on the developing brain include interference with neurotransmitters and abnormal brain shape and structure volume.¹

Stronger Strains arriving on the streets all the time. The stronger the strain the increased likelihood of addiction

No reported cases of addiction if medical cannabis in NYS

There is minimal respiratory depressant effect from cannabis because of the essential lack of cannabinoid receptors in the medulla oblongata in the brain stem.
Side Effects

- Drowsiness
- Dry mouth
- Increased appetite
- Insomnia
- Red eyes
- Dizziness
- Increased heart rate
- May worsen pre-existing mental health problems
Medical Use of Marijuana Under the Compassionate Care Act Two-year Report states:

Approved Medical Marijuana Products Registered organizations are permitted to manufacture medical marijuana products in the following dosage forms:

- liquid or oil preparations for metered oromucosal or sublingual administration or administration per tube;
- metered liquid or oil preparations for vaporization;
- capsules for oral administration;
- any additional form and route of administration approved by the commissioner.
- Smoking and edible products are not permitted.
Consistency of Product

All testing of medical marijuana products must be performed by an independent laboratory certified by the New York State Environmental Laboratory Approval Program (ELAP). The NYSDOH's Wadsworth Center is currently the only laboratory certified by ELAP to test medical marijuana products in New York State. Independent laboratories in New York State may apply for ELAP certification to perform testing of medical marijuana products for registered organizations in New York State. (Medical Use of Marijuana Under the Compassionate Care Act Two-year Report)
How do patients qualify?

- Must be resident of NY or is being treated in NY.
- Must be being treated in NY for the condition for which you are seeking medical marijuana.
- Must be certified by a NY physician who has registered with DOH to recommend medical marijuana (means that the doctor has completed a 2-4 hour training course and filed paperwork with the DOH).
- Must be under that doctor’s care for the condition for which you are seeking medical marijuana.
- Your doctor must believe and be willing to certify that you will receive some therapeutic or palliative benefit from medical marijuana.
- Must have a “serious condition,” as defined by the law.
- Must obtain a registry identification card from the Department of Health (DOH) and carry their patient registry card at all times that they are in possession of medical marijuana.

(Compassionate Care NY)
Cannakorp Benefits of Vaporization vs Smoking

- **Health**
  - Less tar, toxins, and odor thereby reducing lung irritation

- **Experience:**
  - Effects are still within minutes and last 2-4 hours
  - More pleasant taste - no burning involved
  - 46% of available THC in vapor versus 25% in smoke

- **Cost:**
  - Less cannabis is required to achieve desired effects
  - Offsets the cost of the vaporizing device
  - May potentially reduce health care related costs of smoking

(CannaKorp, 2017)
Thank you!