MEDICAL MARIJUANA IN POST-ACUTE AND LONG-TERM CARE

Presented By:
Benjamin M. Kaplan, MD, MPH, FACP
Cari Levy, MD, PhD

Objectives

- Understand the historical journey of medical marijuana and its legal turmoil.
- Review the pharmacology associated with marijuana/cannabis exposure
- Become familiar with the clinical significance of medical marijuana based on available evidence
- Describe the risks and benefits of acute and chronic marijuana exposure for the PA/LTC continuum
- Outline some of the "tough" situations that may arise in the PA/LTC setting

Question:

Which of the following Seven Dwarfs most likely has tried Medical Marijuana?

A. Doc
B. Happy
C. Sleepy
D. Dopey
E. All of the above

Case Study

Mr. Milton is an 84 y/o male with prostate cancer and bone pain. Pain is uncontrolled, he is agitated throughout the day because he can't sleep at night. At home, his daughter was treating him with medical marijuana. How will you manage Mr. Milton's treatment plan?

Case Study

Things for you to think about:

-Does Mr. Milton qualify for Medical Marijuana
-How will you modify/create a treatment plan for Mr. Milton?
-What are the legal issues with providing care for Mr. Milton

History

- **2,737 BCE**: First recorded use of medical cannabis in China by Emperor Shen Neng
- **1840**: Cannabis medicine is available in the US
- **1842–1892**: Marijuana and Hashish extracts were the first, second, or third most prescribed drugs in the US
- **1936**: *Refer Madness* was created as a government tactic to misinform and scare citizens from cannabis
- **1964**: THC identified

Law: The Controlled Substances Act of 1970 (CSA)

Marijuana is labeled as a Schedule 1 drug with the following reasoning:

- High potential for abuse
- No accepted medical use
- Lack of acceptable safety for use under medical supervision

Drug Scheduling Guide
United States

Schedule I	Most potential for abuse and dependence No medicinal qualities	Heroin, LSD, Marijuana Ecstasy, Peyote
Schedule II	High potential for abuse and dependence Some medicinal qualities	Vicodin, Cocaine, Meth, OxyContin, Adderall
Schedule III	Moderate potential for abuse/dependence Acceptable medicinal qualities Doctor's prescription required	Tylenol with Codeine, Ketamine, Steroids, Testosterone
Schedule IV	Low potential for abuse and dependence Acceptable medicinal qualities Prescription required - fewer refill regulations	Xanax, Darvon, Valium, Ativan, Ambien, Tramadol
Schedule V	Lowest potential for abuse/dependence Acceptable medicinal qualities Prescription required - fewest refill regulations	Robitussin AC, Lomotil, Motofen, Lyrica

Source: United States Drug Enforcement Agency

Law

- **1971**: Evidence that cannabis helps glaucoma arises; University of Mississippi gains federal approval to grow marijuana for use in DEA-approved medical research
- **1976**: FDA creates Investigational New Drug (IND) for Compassionate Use research program
- **1996**: California passes first medical cannabis bill
- **2014**: Rohrabacher-Farr (Blumenauer) Amendment – prohibits the use of federal funds in preventing states "from implementing their own State laws that authorize the use, distribution, possession or cultivation of medical marijuana" this does not change legal status

2018

- 29 states plus District of Columbia have some form of medical cannabis program; 9 allow "adult recreational use
- Session's memo rescinds all previous guidance, says its okay to prosecute to the fullest extent of the law

Office of the Attorney General
Washington, D. C. 20530

January 4, 2018

MEMORANDUM FOR ALL UNITED STATES ATTORNEYS

FROM: Jefferson B. Sessions
Attorney General

SUBJECT: Marijuana Enforcement

In the Controlled Substances Act, Congress has generally prohibited the cultivation, distribution, and possession of marijuana. 21 U.S.C. § 801 *et seq.* It has established significant penalties for these crimes. 21 U.S.C. § 841 *et seq.* These activities also may serve as the basis for the prosecution of other crimes, such as those prohibited by the money laundering statutes, the unlicensed money transmitter statute, and the Bank Secrecy Act. 18 U.S.C. §§ 1956-57, 1960; 31 U.S.C. § 5318. These statutes reflect Congress's determination that marijuana is a dangerous drug and that marijuana activity is a serious crime.

In deciding which marijuana activities to prosecute under these laws with the Department's finite resources, prosecutors should follow the well-established principles that govern all federal prosecutions. Attorney General Benjamin Civiletti originally set forth these principles in 1980, and they have been refined over time, as reflected in chapter 9-27.000 of the U.S. Attorneys' Manual. These principles require federal prosecutors deciding which cases to prosecute to weigh all relevant considerations, including federal law enforcement priorities set by the Attorney General, the seriousness of the crime, the deterrent effect of criminal prosecution, and the cumulative impact of particular crimes on the community.

Given the Department's well-established general principles, previous nationwide guidance specific to marijuana enforcement is unnecessary and is rescinded, effective immediately.[1] This memorandum is intended solely as a guide to the exercise of investigative and prosecutorial discretion in accordance with all applicable laws, regulations, and appropriations. It is not intended to, does not, and may not be relied upon to create any rights, substantive or procedural, enforceable at law by any party in any matter civil or criminal.

[1] Previous guidance includes: David W. Ogden, Deputy Att'y Gen., Memorandum for Selected United States Attorneys: Investigations and Prosecutions in States Authorizing the Medical Use of Marijuana (Oct. 19, 2009); James M. Cole, Deputy Att'y Gen., Memorandum for United States Attorneys: Guidance Regarding the Ogden Memo in Jurisdictions Seeking to Authorize Marijuana for Medical Use (June 29, 2011); James M. Cole, Deputy Att'y Gen., Memorandum for All United States Attorneys: Guidance Regarding Marijuana Enforcement (Aug. 29, 2013); James M. Cole, Deputy Att'y Gen., Memorandum for All United States Attorneys: Guidance Regarding Marijuana Related Financial Crimes (Feb. 14, 2014); and Monty Wilkinson, Director of the Executive Office for U.S. Att'ys, Policy Statement Regarding Marijuana Issues in Indian Country (Oct. 28, 2014).

Florida

- Prior to 2014, any form was prohibited
- 2014-2016
  - SB 1030- Compassionate Medical Cannabis Acts of 2014
  - HB 307 (Medical cannabis)
- November 8, 2016
  - Amendment 2 SB 8-A: defined terms of medical marijuana (eligibility, qualifying conditions, production and dispensing)

Colorado

- Decriminalized since 1975
- November 7, 2000
  - Amendment 20: approved for patients with written medical consent (no more than 2 ounces, 6 plants–3 flowering)
- November , 2012
  - Amendment 64: Recreational use for adults aged 21+

Describing Cannabis – Typology

- One single Polymorphic species (30-40 years old)

-Type I: high THC – most common in the world

-Type II: mixed THC/CBD – most common for medicinal purposes

-Type III: CBD predominant – European hemp

CBD – Pharmacology

- Inhibits uptake of anandmide and weakly inhibits its hydrolysis (Bisogno 2001) endogenous cannabanoids: this process is similar to SSRIs with serotonin
- Used for:
  - Anticonvulsant (Cunha; Jones 2010)
  - Alerting vs. Sedating (Nicholson 2004)
  - Anti-anxiety (Crippa 2010)
  - Cytotoxic in Breast cancer while being cytopreservative for normal cells (Ligresti 2006)
  - Antagonist of TNF-α (Inflammatory Bowel Syndromes, Rheumatoid Arthritis)
  - CVA reduction
  - Nausea
  - Improved cognition in hepatic encephalopathy (Magen 2009)
  - Stimulates bone fracture healing (Kogan 2015)

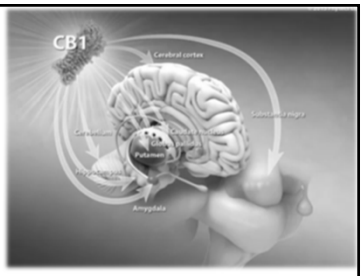
CBD – Misconceptions

Myth: A tiny amount is enough
Truth: More is better

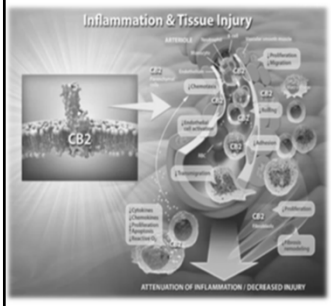
Myth: It is a sedative
Truth: Studies show participants feel more alert

Myth: It turns into THC in the body (Merrick 2016)
Truth: Actually upregulates anandaminde/ Endocannaboid system

CB1 receptors in the Brain



- Highly expressed in nociceptive areas (pain centers)
- Cerebellum (muscular activity)
- Limbic system (emotion)
- Basal Ganglia (movement)
- Reward Pathways (addictive centers i.e. drugs/sex/food)
- Substantia nigra (reward and movement)
- Periaqueductal gray matter (center to suppress pain)



CB2 receptors in the Brain

- Mainly peripheral
- No “high”
- Treatment of fibrosis related conditions (hepatic fibrosis)
- Immunomodulatory receptor
  - Pain
  - inflammation
  - physiological defense

Question:

As of today, where can a patient with a certified condition, who is registered with the State of Florida Medical Marijuana Registry buy medical marijuana legally?

A. Wal-Mart
B. CVS
C. State-licensed Medical Marijuana Dispensary
D. Amazon
E. All of the above

Medical Uses

1) Legal THC/CBD (approved in 24 countries)
   - Sativex (Nabiximols)
     - First cannabis-based medicine to be licensed in the UK
     - Licensed for use in MS related spasticity
     - Oromucosal spray formulated from THC and CBD
     - Works on CB1 and CB2 receptors
     - Improved symptoms in 48% of clinical trial participants (Collin 2010)
   - Nabilone (Cesamet)
     - Synthetic cannabinoid
     - Antiemetic
     - Analgesic for neuropathic pain
     - In U.S. used for chemo-induced nausea/vomiting
     - Numerous trials and case studies demonstrate modest effectiveness for fibromyalgia and MS

Medical Uses

1) Legal Oral THC
   - Dronabinol
     - Approved in 1985
     - Slow onset (60-120 min)
     - 95% of THC metabolized by liver on first pass to 11-OH- THC (more psychoactive
     - Very expensive
     - Lacks synergistic components

Medical Uses

1) Legal CBD (Approved June 2018)
    - Epidiolex
        - FDA authorized, physician-sponsored expanded access program (EAP) initiated in early 2014
            - Children and young adults with multiple etiologies, all with treatment-resistant epilepsy
            - ~20 physician sites
            - Over 1100 patients approved
        - Reductions in both convulsive and total seizures (Warren 2017)

Dosing

- Need and tolerance depends on prior patient experience with cannabinoids and underlying endocannabinoid tone
    - Receptors number and density
    - Concentration of anandamide

Start low and go slow

- 2.5mg of THC is a threshold dose for most patients
- 5mg of THC is usually efficacious and tolerated
- 10mg of THC produces a strong effect in all except those with tolerance, may be too much for some
- >15-20mg/day before tolerance risks psychoactive and other adverse events

CMAJ. 2008 Jun 17; 178(13): 1669–1678.
doi: 10.1503/cmaj.071178
PMCID: PMC2413308
PMID: 18559804

Adverse effects of medical cannabinoids: a systematic review

Tongtong Wang, MSc, Jean-Paul Collet, PhD MD, Stan Shapiro, PhD, and Mark A. Ware, MBBS MSc
Author information ► Copyright and License information ► Disclaimer

Table 4: Frequency of nonserious adverse events reported in observational studies of medical cannabinoid preparations

System organ class*	No. (%) of nonserious adverse events *n = 3553*
Nervous system disorders	1412 (39.8)
Psychiatric disorders	1265 (35.6)
Gastrointestinal disorders	558 (15.7)
Vascular disorders	141 (4.0)
Cardiac disorders	107 (3.0)
General disorders and administration-site conditions	42 (1.2)
Investigations	13 (0.4)
Injury, poisoning and procedural complications	7 (0.2)
Eye disorders	6 (0.2)
Respiratory, thoracic and mediastinal disorders	2 (0.1)

*Classified according to *Medical Dictionary for Regulatory Activities*.[31]

Risks/Benefits in PA/LTC

CNS Effects

- Anxiety
- Decreased muscle tone
- Heightened sensory perception
- Decreased short-term memory
- Sedation
- Decreased body temperature
- Increased appetite
- Increase heart rate
- Orthostatic hypotension
- Secondary trauma (s/p fall)

Accidental cannabis poisoning in the elderly.

Author information

Abstract

There are two main varieties of Cannabis sativa plant, namely, hemp which is cultivated for fiber and seeds and contains low amounts of psychoactive cannabinoids and the other which is cultivated for the drug cannabis or marijuana. Increasing popularity of hemp food products and alleged beneficial effects of cannabinoids in the drug variety of cannabis might lead to confusion in the lay population and unintentional ingestion of marijuana, as described in this case report. During a workshop on the use of hemp for medicinal purposes, there was a degustation of various hemp food products including also cookies that were brought by one of the attendees. Approximately 1 h after ingestion of cookies, people experienced nausea and vomiting, dizziness, sleepiness and difficulty walking. Twelve people were referred to emergency department, where two were admitted to intensive care because of central nervous system depression. They were all managed with supportive measures and were discharged home without health-related consequences.

KEYWORDS: Cannabinoids; Cannabis; Hemp; Poisoning; THC

Question:

In the state of Florida, which of the following conditions qualify for medical marijuana use?

A. Anxiety

B. Multiple Sclerosis

C. Severe Nausea

D. Chronic Pain

E. All of the above

Florida's Qualifying Conditions

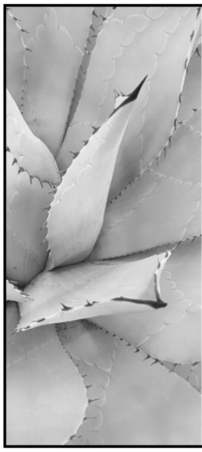
Conditions that Qualify:

- ALS
- Cancer
- Crohn's Disease
- Epilepsy
- Glaucoma
- HIV/AIDS
- Multiple Sclerosis (MS)
- Parkinson's Disease
- Post Traumatic Stress Disorder (PTSD)
- Any Terminal Condition
- Chronic Nonmalignant Pain

Conditions that Could Qualify:

Although the following conditions are not written into Florida's Amendment 2, it indicates that other diagnosable debilitating conditions of like, kind or class may be eligible for a medical marijuana certification card. These include:

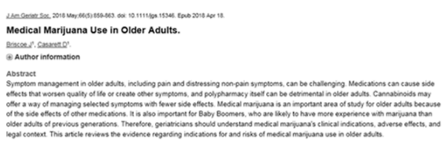
- Anxiety
- Cerebral Palsy
- Chemotherapy Side Effects
- Depression
- Dystonia
- Essential Tremor (kinetic)
- Inflammatory Bowel Disease
- Irritable Bowel Syndrome
- Muscle Spasms
- Muscular Dystrophy
- Osteoarthritis
- Radiation Therapy Side Effects
- Rheumatoid Arthritis
- Seizures
- Severe Nausea
- Spasticity
- Tardive Dyskinesia
- Tourette's
- Ulcerative Colitis (UC)



Implications for Seniors and NHs

- Pain Control
- Reduced Polypharmacy
- Insomnia
- Anxiety
- Nausea and Vomiting
- Anorexia
- PTSD

Implications for Seniors and NHs



J Am Geriatr Soc. 2018 May;66(5):859-863. doi: 10.1111/jgs.15346. Epub 2018 Apr 18.

Medical Marijuana Use in Older Adults.

Briscoe J, Casarett D.

Author information

Abstract
Symptom management in older adults, including pain and distressing non-pain symptoms, can be challenging. Medications can cause side effects that worsen quality of life or create other symptoms, and polypharmacy itself can be detrimental in older adults. Cannabinoids may offer a way of managing selected symptoms with fewer side effects. Medical marijuana is an important area of study for older adults because of the side effects of other medications. It is also important for Baby Boomers, who are likely to have more experience with marijuana than older adults of previous generations. Therefore, geriatricians should understand medical marijuana's clinical indications, adverse effects, and legal context. This article reviews the evidence regarding indications for and risks of medical marijuana use in older adults.

KEYWORDS: Marijuana; mental health; pain; palliative care

Implications for Seniors and NHs

Agitation in Alzheimer Disease as a Qualifying Condition for Medical Marijuana in the United States.

Author information

Abstract
OBJECTIVE: To determine the extent to which states and localities include dementia as a qualifying condition for medical marijuana and how common this indication is.

METHODS: The authors reviewed authorizing legislation and medical marijuana program websites and annual reports for the states and localities where medical marijuana is legal.

RESULTS: Of the 24 states and localities where medical marijuana is legal, dementia is a qualifying condition in 10 (41.7%), primarily for agitation of Alzheimer disease. In the five states where information was available regarding qualifying conditions for certification, dementia was the indication for <0.5% of medical marijuana certifications.

CONCLUSION: Dementia is somewhat commonly listed as a potential qualifying condition for medical marijuana. Currently, few applicants for medical marijuana list dementia as the reason for seeking certification. However, given increasingly open attitudes toward recreational and medical marijuana use, providers should be aware that dementia is a potential indication for licensing, despite lack of evidence for its efficacy.

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KEYWORDS: agitation; dementia; healthcare policy; medical marijuana; neuropsychiatric symptoms

J Alzheimers Dis. 2016;51(1):15-9. doi: 10.3233/JAD-150915.

Safety and Efficacy of Medical Cannabis Oil for Behavioral and Psychological Symptoms of Dementia: An-Open Label, Add-On, Pilot Study.

Shelef A, Barak Y, Berger U, Paleacu D, Tadger S, Plopsky I, Baruch Y.

Author information

Abstract
BACKGROUND: Tetrahydrocannabinol (THC) is a potential treatment for Alzheimer's disease (AD).

OBJECTIVE: To measure efficacy and safety of medical cannabis oil (MCO) containing THC as an add-on to pharmacotherapy, in relieving behavioral and psychological symptoms of dementia (BPSD).

METHODS: Eleven AD patients were recruited to an open label, 4 weeks, prospective trial.

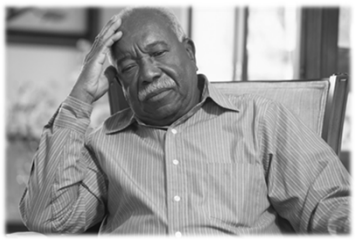
RESULTS: Ten patients completed the trial. Significant reduction in CGI severity score (6.5 to 5.7; $p < 0.01$) and NPI score were recorded (44.4 to 12.8; $p < 0.01$). NPI domains of significant decrease were: Delusions, agitation/aggression, irritability, apathy, sleep and caregiver distress.

CONCLUSION: Adding MCO to AD patients' pharmacotherapy is safe and a promising treatment option.

KEYWORDS: Alzheimer's disease; behavioral and psychological symptoms of dementia; cannabis; tetrahydrocannabinol

PMID: 26757043 DOI: 10.3233/JAD-150915

Case Study: Mr. Milton



Challenges to Consider within your Facility:

What does your state law permit?

Are your physicians qualified to prescribe/recommend?

Can nurses store on medical carts?

Can nurses administer and/or supervise?

How is usage documented?

Are there areas to “smoke” ?

What about transport between facilities? State lines?

Challenges to Consider within your Facility:

Does your facility have a policy and procedure when marijuana is brought to the facility by a primary caregiver?

Does your facility store, access, dispense the medical marijuana? Who from your staff oversees this?

Is use of edibles limited to the resident’s room? (Rights of roommate?)

Does the facility have access?

What do we do with Mr. Milton?

Challenges to Consider within your Facility:

The LTC Providers' Conundrum: Resident Rights vs. Federal Law

1) 42 CFR 483.75(b) SNFs must comply with "Federal, State, and local laws and professional standards"
2) 42 CFR 483.10 Resident rights, including right of accommodation of needs, freedom of choice, and self-administration of medications

How do we reconcile the disconnect?

Challenges to Consider within your Facility:

The federal government considers marijuana a Schedule I controlled substance – possession is a crime

- All nursing facilities that participate in Medicare and Medicaid agree to comply with **ALL** federal, state and local laws


AJN Reports

Cannabis Use in Long-Term Care: An Emerging Issue for Nurses

Conflicting laws at the state and federal levels put nurses in the middle.

Hebrew Home

Legal Marijuana and Opioids

Legal marijuana is saving lives in Colorado, study finds

By Christopher Ingraham
October 26, 2017

In Colorado, opioid deaths fell following marijuana legalization

Marijuana legalization in Colorado led to a "reversal" of opiate overdose deaths in that state, according to new research published in the American Journal of Public Health.

"After Colorado's legalization of recreational cannabis sale and use, opioid-related deaths decreased more than 6% in the following 2 years," write authors Melvin D. Livingston, Tracey E. Barnett, Chris Delcher and Alexander C. Wagenaar.

In the two years following legalization of recreational use, Colorado has seen a 6% decrease in opioid related deaths

Decrease in opioid prescriptions filled when a state instituted any medical marijuana law

May 2018

Association Between US State Medical Cannabis Laws and Opioid Prescribing in the Medicare Part D Population

Ashley C. Bradford, BA[1], W. David Bradford, PhD[1], Amanda Abraham, PhD[1], et al

> Author Affiliations | Article Information

JAMA Intern Med. 2018;178(5):667-672. doi:10.1001/jamainternmed.2018.0266

Legal Marijuana and Opioids

Medical Marijuana Laws Reduce Prescription Medication Use in Medicare Part D

- July 2016 issue of *Health Affairs*
- Researchers examined Part D claims data from CMS for 17 states in 2013 where medical marijuana was legal
- Use of opioids fell precipitously
- Part D saved $165 million
- Presumably less opioid-dependency and overdose
- CMS saves $$$, patients not dependent on opiods = win-win

  - Source: Bradford A., Bradford W., *Medical Marijuana Laws Reduce Prescription Medication Use in Medicare Part D*, Health Aff, 5;7:1230-1236 (July 2016)

Recommendations

- Consult State Health Department
- Consult competent legal counsel
- Review professional organization guidelines
- Develop and implement policies and procedures and REVISE PRN
- Adopt guidelines and REVISE PRN
- Compliance and Ethics programs/committees

Recommendations

- Enroll in list serves
  - Marijuanadoctors.com
  - Leafly.com
  - Mpp.org (marijuana policy project)
  - Norml.org (organization working to reform marijuana policy)
  - Icrs.co (international cannabinoid research society)
  - Medical Marijuana Use Registry (Florida Dept. of Health)