

MARIJUANA in MEDICAL CARE

READY or RISKY

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MARIJUANA IN MEDICAL CARE HISTORY

- ◆ MARIJUANA (CANNABIS SATIVA) HAS LONG BEEN PART OF RELIGIOUS & SPIRITUAL RITES
- ◆ MARIJUANA IS (REMAINS) ILLEGAL IN MOST COUNTRIES
- ◆ MARIJUANA REMAINS CATEGORIZED AS SCHEDULE 1 ,THUS PREVENTING PHYSICIAN "PRESCRIBING"
- ◆ MARIJUANA NOW DECRIMINALIZED AND EVEN LEGAL IN GROWING NUMBER OF STATES
- ◆ MARIJUANA IS APPROVED FOR MEDICAL USE IN ALMOST HALF THE STATES AND CANADA

MARIJUANA IN MEDICAL CARE

PHARMACOLOGY

- ◆ MARIJUANA COMPRISES OVER 60 ACTIVE SUBSTANCES
 - ◆ CANNABINOIDS (INCLUDING THC₉ & CANNABIDIOL)
 - ◆ ENDOCANNABINOIDS (ENDOGENOUS)
- ◆ CANNABINOIDS ACT ON RECEPTORS (CB₁ & CB₂) THROUGHOUT BODY (HIGHEST CONCENTRATION IN BRAIN /SPINAL CORD/NOT STEM)
- ◆ CANNABINOIDS
 - ◆ DIRECTLY AND INHIBIT THE RELEASE OF MULTIPLE NEUROTRANSMITTERS (& ANTIINFLAMMATORY EFFECTS)
 - ◆ EUPHORIA & OTHER DESIRED THERAPEUTIC EFFECTS ARE MAINLY DUE TO THC₉ (VERSUS CANNABIDIOL)
 - ◆ MARIJUANA POTENCY IS RELATED TO THC-CANNABIDIOL RATIO
- ◆ NET EFFECT INFLUENCED BY PREPARATION, DOSE/POTENCY; PATIENT CHARACTERISTICS; TREATMENT REGIMEN



From: **Medical Marijuana for Treatment of Chronic Pain and Other Medical and Psychiatric Problems: A Clinical Review**

JAMA. 2015;313(24):2474-2483. doi:10.1001/jama.2015.6199

Table 2. Common Cannabis Preparations

Preparations	Description
Marijuana ^a	Dried plant product consisting of leaves, stems, and flowers; typically smoked or vaporized
Hashish	Concentrated resin cake that can be ingested or smoked
Tincture ^a	Cannabinoid liquid extracted from plant; consumed sublingually
Hashish oil	Oil obtained from cannabis plant by solvent extraction; usually smoked or inhaled; butane hash oil (sometimes referred to as “dabs”), for example
Infusion ^a	Plant material mixed with nonvolatile solvents such as butter or cooking oil and ingested

^a These preparations are available from state-approved medical marijuana dispensaries.

Routes of Administration

- s Oral (& Oral Musocal)
- Vaporized (smoking excluded in NY)
- Infusion
- Ingestion

MARIJUANA IN MEDICAL CARE

PHARMACOLOGY

- ◆ PHARMACEUTICAL CANNABINOIDS
 - ◆ DRONABINOL (MARINOL:FDA Approved)
 - ◆ NABILONE (CESAMET:FDA Approved)
 - ◆ NABIXIMOLS (SAVITEX:FDA Phase 3 trials in US,in use in other countries)
 - ◆ AVAILABLE IN PILL FORM
 - ◆ MEDICALLY USED FOR OVER 20 +YEARS
- ◆ "MEDICAL MARIJUANA"
 - ◆ DRIED MATERIAL OF CANNABIS PLANT
 - ◆ MAY BE IDENTICAL TO RECREATIONAL MARIJUANA
 - ◆ NY STATE REQUIRES LOW & HIGH POTENCY FORMS
 - ◆ MEDICAL PERSONS CAN "RECOMMEND OR CERTIFY " NOT PRESCRIBE
 - ◆ DISPENSERY NOT PHARMACY

MARIJUANA IN MEDICAL CARE

“SERIOUS MEDICAL CONDITIONS”

- ◆ CANCER
- ◆ HIV +/-AIDS
- ◆ MULTIPLE SCLEROSIS
- ◆ ALS & HUNTINGTON’S DISEASE
- ◆ PARKINSONS DISEASE
- ◆ SPASTICITY
- ◆ EPILEPSY
- ◆ NEUROPATHIES
- ◆ INFLAMMATORY BOWEL DISEASES

MARIJUANA IN MEDICAL CARE “SERIOUS MEDICAL CONDITIONS”

- ◆ ALZHEIMER’S DISEASE
- ◆ DYSTONIA
- ◆ MUSCULAR DYSTROPHY
- ◆ PTSD
- ◆ RHEUMATOID ARTHRITIS

“Or such conditions as are added by the commissioner”

MARIJUANA IN MEDICAL CARE

MEDICAL SYMPTOMS

- ◆ NAUSEA AND VOMITING
 - ◆ CHEMOTHERAPY
 - ◆ HIV
 - ◆ DRUG INDUCED
- ◆ CACHEXIA/WASTING SYNDROME
- ◆ PAIN
- ◆ MUSCLE SPASMS
- ◆ SEIZURES

“Or such conditions are added by commissioner”

MARIJUANA IN MEDICAL CARE READY

- ◆ CANNABIS IS “SAFE” (non lethal)
- ◆ MEDICAL SYMPTOMS MAY BE AMELIORATED BY DRUG
- ◆ ADVERSE REACTIONS (SHORT TERM)
 - ◆ COMMON
 - ◆ GENERALLY MILD COGNITIVE/ NEUROCOGNITIVE?MOTORIC
 - ◆ CARDIAC SYSTEM
 - ◆ IMPAIRED JUDGEMENT SIMILAR TO ALCOHOL USE
- ◆ ADVERSE EFFECTS (LONG TERM)
 - ◆ NEUROCOGNITIVE EFFECTS
 - ◆ HORMONAL EFFECTS
 - ◆ PULMONARY & CARDIAC RISKS
 - ◆ VULNERABLE POPULATIONS

MARIJUANA IN MEDICAL CARE

RISKY

- ◆ PHYSICIANS ROLE TO “CERTIFY” NOT PRESCRIBE
- ◆ STANDARD/QUALITY CONTROL NOT AS YET IN PLACE
 - ◆ Practitioners must consider the form & dosage (and limitations)
 - ◆ Ingestible forms cannot exceed 10 mg THC/dose
- ◆ MOST CONDITION (SYMPTOMS) MAY HAVE MORE DEFINITIVE/ALTERNATE TREATMENT AVAILABLE
- ◆ CHANGE IN DOCTOR-PATIENT RELATIONSHIP
- ◆ ADDICTION POTENTIAL

MARIJUANA IN MEDICAL CARE

PRACTICAL CONSIDERATIONS

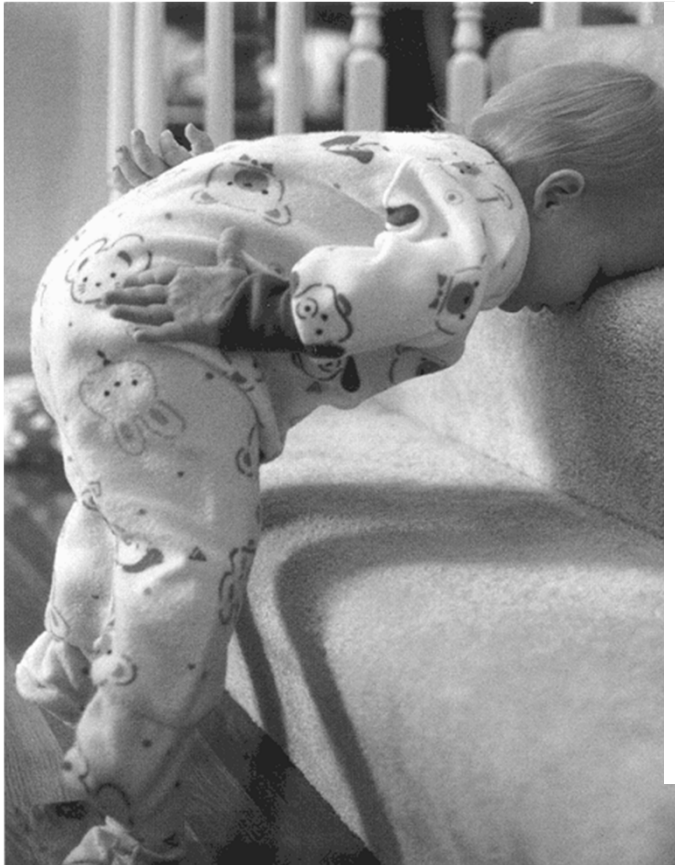
- ◆ COMPREHENSIVE ASSESSMENT OF PATIENT
- ◆ PATIENT SHOULD BE ASSESSED “UNDER CARE OF PRACTITIONER”
- ◆ CONDITION/SYMPTOMS SHOULD BE ONE FOR WHICH
 - ◆ CANNABINOIDS HAVE BEEN SHOWN TO BE EFFECTIVE
 - ◆ STANDARD TREATMENT IS NOT EFFECTIVE OR TOLERATED
 - ◆ UNSUCCESSFUL ATTEMPTS WITH PHARMACEUTICAL “MARIJUANA”
- ◆ SUBSTANCE USE/ABUSE HISTORY AND RISK ASSESSED(I STOP)
- ◆ FOLLOW-UP CARE PLAN IN PLACE

MARIJUANA IN MEDICAL CARE

READY or RISKY

- ◆ CANNABINOIDS ARE PHYSIOLOGICALLY AND PHARMACOLOGICALLY ACTIVE
- ◆ MEDICAL SYMPTOMS AND CONDITIONS MAY RESPOND
- ◆ QUALITY CONTROL & STANDARDS NEEDED
- ◆ RESEARCH NEEDED TO DETERMINE WHEN, WHOM & HOW
- ◆ BEST PRACTICES TO BE DEVELOPED

MARIJUANA IN MEDICAL CARE READY or RISKY



*If it isn't
one thing,
it's another.
Hang
in there.*

"Though this be madness, yet there is method in 't."

--From Hamlet (II, ii, 206)