

OREGON HEALTH DIVISION

ASSESSMENT WORKSHEET FOR EVALUATING PETITIONS TO EXPAND THE LIST OF "DEBILITATING MEDICAL CONDITIONS" UNDER THE OREGON MEDICAL MARIJUANA ACT

CONDITION ANXIETY
REVIEWED 3/25/2000

DATE

I. Consideration of Available Evidence

Description of Evidence Considered:

1. [Marijuana and Medicine: Assessing the Science Base](#) by Institute of Medicine (1999 National Academy of Sciences)
2. "Substance Use Among the Mentally Ill" by Warner, et al [American Journal of Orthopsychiatry](#) 64(1): 30-39 (January 1994)
3. [Marihuana the Forbidden Medicine](#) by Grinspoon & Bakalar (1997 Yale University Press) and additional case reports from patient interviews
4. "Acute Administration Of The CB1 Cannabinoid Receptor Antagonist SR141716A Induces Anxiety-Like Responses In The Rat" by Navaro, et al [Neuro Report](#) 8: 491-496 (1997)
5. "Action Of Cannabidiol On The Anxiety And Other Effects Produced By Delta-9 THC In Normal Subjects" by Zuardi, et al [Psychopharmacology](#) 76: 245-250 (1982)
6. "Inhalation Marijuana as an Antiemetic for Cancer Chemotherapy" by Vinciguerra et al [New York State Journal Medicine](#) 88: 525-527 (October 1988)

Clinical Effectiveness (and comparison with established alternatives):

The Conclusion and Recommendation on page 108 in the hardback edition of [Marijuana and Medicine: Assessing the Science Base](#) by Institute of Medicine (1999 National Academy of Sciences) and reproduced between the quotation marks below:

"Conclusion: The psychological effects of cannabinoids, such as anxiety reduction, sedation, and euphoria, can influence their potential therapeutic value. Those effects are potentially undesirable in some patients and situations and beneficial in others. In addition, psychological effects can complicate the interpretation of other aspects of the drug's effect.

Recommendation: Psychological effects of cannabinoids, such as anxiety reduction and sedation, which can influence medical benefits, should be evaluated in clinical trials".

Health Benefits and Risks:

As the Institute of Medicine (IOM) report states, "anxiety reduction, sedation, and euphoria, . . . are potentially undesirable in some patients and situations and beneficial in others." Reference 2 shows that even though cannabis made paranoia and hallucination symptoms worse in patients with schizophrenia, that cannabis improved anxiety and depressive symptoms. This improvement with cannabis was in contrast to worsening of anxiety and depression observed with alcohol and other drugs. Interesting case reports are presented in Reference 3. Reference 4 indicates a role for cannabinoid receptors in anxiety modulation. Reference 5 reports that THC

is more likely to cause anxiety than THC plus cannabidiol. Cannabidiol is found in cannabis but not the commercial THC/dronabinol/Marinol. Reference 6 documents an 88% sedation rate, which similar to other sedative/hypnotics can be a risk while driving or a benefit if sleep is desirable.

Factors Affecting Safety, Effectiveness, and Related Considerations for All Patients and for Specific Patient Types:

1. Cannabis can improve anxiety but can also worsen anxiety especially in inexperienced users.
2. Cannabis is very sedating to the majority of adults, which can be good or bad depending on the setting. Although Cannabis works on different receptors than benzodiazepines, the sedation is similar to other sedative/hypnotic drugs.
3. Cannabis presents a risk for worsening paranoia and hallucinations in patients with schizophrenia.
4. Cannabis is often smoked because prohibition has made high quality cannabis more expensive than gold. Smoking cannabis is not an optimal delivery system. Oral administration or vaporization techniques, which use more cannabis, will be more likely if the patient has access to inexpensive cannabis (such as homegrown now or prescription access in the future).

Net Health and Overall Impact of Medical Marijuana Use for This Condition:

Relieving symptoms of anxiety in patients with anxiety disorders improves net health and overall impact including quality of life. Cannabis can produce this improvement in select individuals.

Other Considerations:

Fortunately there are treatments for anxiety disorders such as modern antidepressants and benzodiazepines and other agents that are not lethal in overdose. These are certainly preferred over Cannabis. However, many patients do not have access to health care, especially mental health care, and cannot afford expensive prescription medication. Some patients do respond favorably to cannabis for anxiety. The intention of the Oregon Medical Marijuana Act (OMMA) is to exempt qualified patients from select elements of Oregon criminal law when his/her doctor agrees that marijuana might help or mitigate a condition or symptom. Since being in violation of Oregon law causes anxiety in normal individuals, it would seem that extending this OMMA exemption to those with a severe anxiety disorder might improve access to their medicine and decrease anxiety over illegality. It is also important to consider that we are discussing patients with anxiety disorder, which can cause severe debilitation including agoraphobia and progression to depression and the most severe complication of the illness - death. This is different than "stress about taxes" in normal people in a submitted editorial page where an editor mocked patients with serious mental illness.

II. Performance On Assessment Criteria

(1) **Quality and Sufficiency of Available Evidence:** *There is sufficient available evidence of sufficient quality to permit reaching a sound determination relating to the use of medical marijuana for the treatment of this condition.* Yes [] Possibly [**X**] No [] NAD []

Comments:

The reduction of anxiety is reported in many books, published papers, and case reports but for the most sound determination, one would prefer controlled trials.

(2) [A] **Clinical Effectiveness:** *The use of medical marijuana for this condition is clinically effective.* Yes [] Possibly [X] No [] NAD []

Comments:

Cannabis can reduce anxiety and is effective for select individuals. However it can also worsen anxiety in others, particularly THC without cannabidiol.

[B] **Relative Clinical Effectiveness:** *The use of medical marijuana for this condition is clinically effective relative to established alternative treatments for this condition.*

Yes [] Possibly [x] No [] NAD []

Comments:

For nearly everyone who can access health care providers and afford prescription medication, there will be superior alternatives to cannabis. For some patients, cannabis will be the best option to control anxiety.

(3) **Health Benefit/Risk Ratio:** *The health benefits of medical marijuana use for this condition outweigh the health risks.* Yes [] Possibly [X] No [] NAD []

Comments:

As the Institute of Medicine report states, "anxiety reduction, sedation, and euphoria, . . . are potentially undesirable in some patients and situations and beneficial in others."

Using cannabis for anxiety might be especially helpful in those who might otherwise go untreated and less helpful in those who have access to other more expensive options. For those who have access to a full-range of options including private counseling and medication management by psychiatrists, cannabis will likely play a very small role. But for those who must either grow their own medicine or do without, cannabis may be very helpful.

(4) **Net Health Impact:** *The use of medical marijuana for this condition improves net health outcomes (functional status and/or ability to perform activities of daily living) for those individuals with this condition who use medical marijuana.*

Yes [] Possibly [X] No [] NAD []

Comments:

If cannabis relieves the anxiety it will improve the net health outcome. Most importantly, it should be an option to consider in select patients in special settings, particularly if the patient does not have access to optimal psychiatric care and medication choice.

(5) **Net Overall Impact:** *The use of medical marijuana for this condition improves net overall outcomes (quality of life and/or perceived satisfaction with condition improvement) for those individuals with this condition who use medical marijuana.*

Yes [] Possibly [**X**] No [] NAD []

Comments:

Relieving anxiety will improve net overall outcome. Ideally treatment of anxiety should not involve any pharmacotherapy. If drug therapy is needed then newer antidepressants and anti-anxiety agents that don't kill with overdose are preferred. Although cannabis meets this latter requirement, it is very sedating and is often smoked making it less desirable than standard agents. As in most clinical settings the risks and benefits particular to each patient must be considered in order to achieve the best outcome.

(6) **Safety, Effectiveness, or Related Issues:** *There are no such compelling or overriding issues that alter any of the determinations regarding the use of medical marijuana for the treatment of this condition that would have been reached absent these issues.*

Yes [**X**] Possibly [] No [] NAD []

Comments: *(If yes, what are these issues and how do they alter these determinations?)*

When a patient discusses with his/her doctor conditions such as mental illness, unconventional treatments, or undesirable therapies whether it is herbal treatment or chronic opioids, there is often a great deal of anxiety in patients that interferes with communication between doctors and patients. Often patients simply won't tell their doctor if they are doing anything "unconventional". This communication gap worsens patient care. If the Oregon Health Division decriminalizes use of cannabis for anxiety when the patient's doctor feels it might help, this can only improve patient anxiety for patients who use cannabis as an anxiolytic and would facilitate discussion between patients and doctors to optimize treatment.

Note: *NAD = Not Able to Determine*

III. Overall Findings and Recommendations

Summary of Findings

1. The psychological effects of cannabinoids, such as anxiety reduction, sedation, and euphoria, can influence their potential therapeutic value. Those effects are potentially undesirable in some patients and situations and beneficial in others.
2. Cannabis is very sedating to the majority of adults, which can be good or bad depending on the setting. Although Cannabis works on different receptors than benzodiazepines, the sedation is clinically similar to other sedative/hypnotic drugs and carries the same risk.
3. Cannabis presents a risk for worsening paranoia and hallucinations in patients with schizophrenia although symptoms of anxiety and depression often improve. The results with cannabis are markedly different than the results with alcohol or other drugs.
4. Cannabis is often smoked because prohibition has made high quality cannabis more expensive than gold. Smoking cannabis is not an optimal delivery system but it is the most efficient. Oral administration and vaporization techniques, which use more cannabis, will be used if patients have access to inexpensive cannabis.

5. Using cannabis for anxiety might be especially helpful in those who would otherwise go untreated and less helpful in those who have access to other more expensive options. For those who have access to a full-range of options including private counseling and medication management by private psychiatrists, cannabis will likely play a very small role. But for those who must either grow their own medicine or do without, cannabis may be very helpful.
6. As in most clinical settings the risks and benefits particular to each patient must be considered in order to achieve the best outcome for each individual patient.
7. If the Oregon Health Division decriminalizes use of cannabis for anxiety when the patient's doctor feels it might help, this can only relieve anxiety for patients who use cannabis as an anxiolytic and would facilitate discussion between patients and doctors to optimize treatment.
8. It must be emphasized that there is a huge difference between severe anxiety disorders that can lead to agoraphobia and depression - of which a complication is death - versus the mocking attitude of newspaper editors when discussing "stress", which is an ill-defined and incomplete diagnosis at best.

Recommendation Regarding Adding this Condition to the List of "Debilitating Medical Conditions" for Purposes of the Oregon Medical Marijuana Act

- Add disease to list of disease conditions pursuant to ORS 475.302(2)(a)
- Add symptom to list of symptom conditions pursuant to ORS 475.302(2)(b)
- Do NOT add disease or symptom to list of debilitating medical conditions

COMMENTS Re: this Recommendation:

If it were possible to add "severe anxiety" as a symptom with "severe" meaning that other treatment options have failed or have been toxic, then this would be my preference. Another synonym for "severe" in this setting might be "refractory". "Severe anxiety with unfavorable response to conventional treatment" would summarize my recommendation.

RATIONALE Re: this Recommendation:

Listing as a symptom is a softer recommendation than adding anxiety as a disease. There are no controlled clinical trials but there is no doubt that CB1 receptors can modulate anxiety in mammals and that THC is perceived differently in humans than THC + cannabidiol. Thus cannabis is a different agent than THC/dronabinol/Marinol, especially in anxiety disorders. Cannabidiol, available naturally in whole cannabis, has been synthesized or extracted and used in some research including seizure disorder but is not available by prescription. Cannabis under the care of a doctor should be an option for select patients in special circumstances.

Strength of this Recommendation:

My strength of this recommendation is strong with the above caveats.

Other Comments, Observations, Etc

Submitted By:

Signature

Print Name