Submission No 21

INQUIRY INTO USE OF CANNABIS FOR MEDICAL PURPOSES

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AMA is a medico-political organisation that represents over eight thousand doctors in training, career medical officers, staff specialists, visiting medical officers and specialists and general practitioners in private practice.

In regard to the Terms of Reference AMA (NSW) provides and adopts the current AMA (Federal) position statement on the medical uses of cannabis, which is outlined in the attached document

Parliament of New South Wales
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Inquiry into

Medical use of cannabis

Submission by

Australian Medical Association (NSW) Limited

Contents

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In regard to the Terms of Reference AMA (NSW) provides and adopts the current AMA (Federal) position statement on the medical uses of cannabis set out below:

1. Introduction

Cannabis is a drug that comes from the plant cannabis sativa[12] The active chemical, delta-9 tetrahydrocannabinol, (THC) is found in the resin that covers the flowering tops and upper leaves in the female plant[13]. It is the THC that gives the user the alteration in mood and the feeling of a 'high'. Cannabis comes in three main forms: marijuana, cannabis resin (hashish) and cannabis oil[2,3] with the least potent form being marijuana.

Cannabis can be smoked through a 'joint'- a hand rolled cigarette containing matter from the leaf, heads or resin of the plant or through a waterpipe or 'bong', where water is used to cool the smoke before it is inhaled.

Cannabis is referred to as a 'depressant' drug in that it affects the central nervous system, slowing down the messages between the brain and the body[2].

2. Cannabis Use in Australia

In 2004, cannabis was the most commonly used illicit drug in Australia. One third (33.6%, 5.5 million) of Australians aged 14 years and over had used it in their lifetime and one in twenty (4.6%, 0.8 million) had used it in the last week.

Of the recent users of cannabis (0.8 million), one in six (16.4%, 131, 200) used it every day and a further one in five (22.8%, 182,400) used it at least once per week. For most people who use cannabis, their use is relatively light. The majority of young people have used it once or twice[4]. However, the younger people start using cannabis and the greater the frequency with which they use it, the greater the risk of harm.

3. General Health Effects of Cannabis

The effects of cannabis, as with all drugs, vary from one person to another based on the person's weight and health, degree of tolerance to the drug, what amount of the drug is taken, and its interaction with other drugs[2]. Other influencing factors include the frequency of use, age of onset of use, past drug experiences, the circumstances in which the drug is taken, and the method used to absorb the drug.

3.1 Short term effects of small doses

- Acute transient psychotic symptoms
- Exacerbation of pre-existing psychotic symptoms

The most common short term effects of a small dose of cannabis are:

- Impaired balance and coordination;
- A 'high'- with a tendency to talk and laugh more than usual;
- Difficulties with memory retention and retrieval;
- An increase in heart rate;
- Decreased inhibitions such as being more likely to engage in risk behaviour eg unsafe sexual practice and dangerous driving; and
- If smoked, the effects on the lungs are similar to tobacco smoke. This can make asthma and other respiratory problems worse.

These effects usually lead to feelings of slowing down and drowsiness.

A small number of people who use cannabis are very sensitive to its effects. The effects can take the form of agitation, anxiety and panic, a sense of loss of control of thoughts, feelings and sensations, or experiences of suspiciousness and paranoia.

3.2 Short term effects of large doses

The most common short term effects of a large dose are:

- hallucinations;
- vomiting;
- feelings of panic or intense anxiety;
- blacking out;

- changes in perception of time, sound, colour, distance, touch and other sensations;
- restlessness, and
- confusion.

3.3 Long term effects

If cannabis is taken on a regular basis over a long period of time then the following health problems may be experienced:

- tolerance- more of the drug is needed to produce the same effect;
- increased risk of damage to lungs and lung functioning;
- a decrease in motivation;
- a decrease in concentration;
- difficulties with memory and ability to learn new tasks;
- decreased sex drive;
- lowered sperm count in men;
- irregular menstrual cycles in women; and
- hyperemesis syndrome.

Consumption of large quantities of cannabis on almost every day of the week is likely to lead to the neglect of some other important priorities such as relationships, parenting, careers and community responsibilities[5]. However, there is currently a lack of robust evidence for an amotivational syndrome (characterized by a loss of motivation, energy and initiative) associated with the use of cannabis[6].

3.4 How long do the effects of cannabis use last?

- Intoxicating effects occur within seconds to minutes and can last for three hours;
- For larger doses the effects last longer;
- Effects on thinking and coordination can last up to 24 hours;
- Short term memory loss can last for a number of weeks; and
- Complete elimination of a single dose in a chronic user can take up to 30 days.

3.5 Pregnant Women

Women who are pregnant and continue to smoke cannabis during pregnancy, as with cigarette smoking, may have lower birth weight babies[1]. Cannabis is the most commonly used illicit drug amongst women of child bearing age[6]. Cannabis use does not appear to increase the risk of miscarriage, birth abnormalities or lower IQ. There is some evidence to suggest that children who have been exposed to cannabis in utero may have more difficulties with problem solving and maintaining attention, which may compromise academic achievement[6].

3.6 Accidental ingestion by young children

Young children can go into a coma after accidental ingestion of cannabis. Confirmation of cannabis ingestion can be obtained by positive urine screening for cannabinoids.

Medical practitioners need to consider cannabis ingestion in a toddler or child with reduced consciousness levels and with or without abnormal neurological findings.

3.7 Driving under the influence of cannabis

Cannabis increases the risk of having an accident due to slow reaction time, blurred vision, poor judgement and drowsiness. These effects can last several hours and vary according to the quantity and quality of THC content and are increased by alcohol.

3.8 Dependence and Tolerance

Dependence on cannabis involves compulsive use but not usually physiological dependence. The *National Mental Health and Wellbeing Survey* found that 2.2% or 300,000 of the adult Australian population had either abused or were dependent on cannabis. This translated to approximately one in three of those who had used cannabis in the last 12 months[6]. Dependence can negatively affect personal relationships, education, employment and many other aspects of a person's life. Data from Australia and other countries indicates increasing demand for professional help related to cannabis. In terms of tolerance, animal and human studies demonstrate that tolerance to many of the psychological and behavioural responses to cannabis occurs with repeated exposure to the drug. The withdrawal from cannabis appears

similar to that associated with tobacco but is less severe than withdrawal from alcohol or opiates[6]

3.9 Treatment Options

Although the number of people seeking assistance for treatment of cannabis increases and research indicates that cannabis can be addictive there has been little research on the effectiveness of treatment options for cannabis misuse[6].

4 Cannabis as a Gateway Drug

The gateway hypothesis is that the use of cannabis may act as a 'gateway' to the use of other illicit drugs such as cocaine and heroin[6]. It is a controversial hypothesis with proponents arguing that the use of so-called harder drugs is almost always preceded by cannabis use[7]. The alternative theory to gateway is known as the 'common cause' theory whereby the use of cannabis and other illicit drugs is due to a range of common causes such as socio-economic circumstances and personal factors[6].
While current research suggests support for the gateway theory, more research is required before this can be confirmed definitively. There is some conjecture that, as most cannabis users have used cigarettes prior to cannabis, cigarettes act as a gateway to cannabis use[6].

5 Comparative Strength of Cannabis Compared with that used since 1970s

There has been much speculation that the cannabis being smoked by today's young people is stronger than that smoked by their parents. There is no Australian evidence to this effect. However, young people are more likely to smoke cannabis through a 'bong' or 'joint' and there is evidence of a tendency to smoke the heads of the cannabis plant as opposed to the leaves, compared with older users. These two factors combine to increase young people's exposure to higher levels of THC[6].

6 Comparative Health Impact

Based on current use patterns, alcohol and tobacco are much more damaging than cannabis to public health in developed countries. The most recent data on causes of disease burden in Australia comes from a 1996 study that calculated disease burden according to *Disability Adjusted Life Years (DALYs) Lost*[8]. DALYs incorporate years lost to premature mortality and years lost to disability. The study found that for males,

alcohol dependence/abuse ranked number 13 on the list of causes compared with 70 for cannabis dependence/abuse. This translated to 31 million years of healthy life lost or 2.4% of the total burden of disease for alcohol dependence/abuse, compared with 3 million years of disability and 0.2% of the total burden of disease for cannabis[8]. For women, alcohol dependence/abuse ranked 17 on the list at 13 million years of healthy life lost or 1.2% of the total burden of disease. Cannabis dependence/abuse did not rank on the top 75 leading causes of disease burden for women[8].

In 1998-99 the social costs of drug use (including direct costs such as health, crime and loss of production etc, as well as intangible costs such as pain and suffering) were calculated as part of the *National Drug Strategy*[9]. As a percentage of the total social cost from all illicit drugs in 1998-99 (those for cannabis were not calculated separately) was less than that for alcohol (17.6% compared with 22%). The costs from tobacco use represented 61.2% of the total[9].

Another aspect of the health impact is that drug use, including illicit drug use, is closely associated with social and economic disadvantage[10].

7 Cannabis and Mental Health

Any use of cannabis by people who have had previous psychotic symptoms/illness is detrimental. When people are 'stoned' they can forget to take their medications. Cannabis can also worsen delusions, mood swings, hallucinations and especially feelings of paranoia. Cannabis can both trigger further episodes of psychosis and other psychiatric illnesses, and complicate treatment.

Cannabis use is associated with poor outcomes in existing schizophrenia and may precipitate psychosis in those with a predisposition[11]. It appears that using larger amounts of cannabis, at an earlier age and having a genetic predisposition increases the risk of developing schizophrenia[4].

There has been a meta-analysis of several landmark prospective cohort studies examining the causal link between cannabis use and psychosis[11]. These have used a variety of cohorts from Sweden, the Netherlands and New Zealand that have individually demonstrated a causal link. However, there are limitations in drawing a

united conclusion from these studies due to methodological differences and limitations such as the:

- Heterogeneous measure of psychosis/schizophrenia used;
- Measures of cannabis use were based on self-reporting rather than clinical data;
- Variable information on other concurrent drug use that may have a confounding effect on results; and
- Studies not being able to rule out the possibility that cannabis use was a result of emerging schizophrenia rather than a cause of it (based on the fact that schizophrenia is usually preceded by a psychological and behavioural changes in the years before diagnosis[7]).

The meta-analysis of prospective studies of cannabis was used to determine that the pooled odds ratio was 2:1 and that cannabis was a component cause in the development and prognosis of psychosis[11].

Other researchers[7][12][13]have reviewed these studies and concur that there is a causal relationship between cannabis use and psychotic conditions. This association does not prove that cannabis causes schizophrenia but that it is a component cause forming part of a causal constellation[7]. Likewise, it is not a sufficient cause, that is not all people who use cannabis in adolescence go on to develop psychosis[7].

7.1 Cannabis and Depression

Less research has been undertaken on links between cannabis and depression than those between cannabis and psychosis. Cross-sectional studies have mostly indicated that the relationship between cannabis use and depression is at least partly explained by family and personality factors, other drug use and marital status. Longitudinal study design research has consistently concluded that depression does not predict cannabis use but that cannabis use imparts a moderate risk for later depression, particularly amongst adolescent girls[6].

The research on cannabis use and suicide has produced mixed results although there is some evidence to support that heavy cannabis use can pose a small additional risk of suicide[6].

7.2 Cannabis and Anxiety

As with depression, there has been little research examining the links between cannabis use and anxiety. That available indicates cannabis use and anxiety disorders occur at a greater rate than one would expect from chance. However, these results seem to be largely moderated by other factors such as child and family issues, other drug use and peer associations[6].

8 Medical Uses of Cannabis

In December 2005, the Royal College of Physicians of London released a report of a working party entitled *Cannabis and cannabis-based medicines: Potential Benefits and risks to health*. It contends that the only two recognised medical indications for the main psychoactive ingredient of cannabis, THC are:

- The treatment of nausea and vomiting associated with chemotherapy; and
- Counteracting the loss of appetite and cachexia associated with AIDS[14]

Other possible medical indications for cannabis are:

- As a pain reliever;
- Treating neurological disorders such as multiple sclerosis, spinal cord injury, and some movement disorders, particularly where there is muscle spasticity or tremor[6]; and
- Reduction of intra-ocular pressure in glaucoma.

9 Cannabis and Legislation

The possession, use and supply of cannabis is illegal in all states and territories. Each state and territory has its own civil or criminal penalties for cannabis offences. All jurisdictions have some capacity for minor and early cannabis offenders to be diverted from the legal system into educative and/or treatment programs. This means first time offenders are unlikely to receive a criminal record with the concomitant deleterious health and social impacts[6].

9.1 Criminalisation and Health

It is often cited that criminal penalties will acted as a deterrent to use. There is no evidence to support this. In "A Public Health Perspective on Cannabis and Other Illegal Drugs[15]", the Canadian Medical Association highlights the profound impact on health status associated with having a criminal record. The presence of a criminal record can severely limit employment prospects leading to poor health.
Evidence indicates that strict drug laws in general encourage people to take more potent drugs and to consume them in unsafe ways. Prohibition also makes users less likely to seek treatment when they get into difficulty[16]. "Prohibition is the cause of a significant proportion of the health costs associated with illicit drug use and it hinders the achievement of the objective of harm minimisation"(page 8)[16]. Research indicates that the introduction of liberal drug laws may result in a slight increase in temporary drug use but that it is unlikely to increase, and may even decrease, drug related health costs[16].

9.2 Harm Reduction

In this context, harm reduction can be defined as policies and initiatives which primarily aim to reduce the adverse health, social and economic consequences of mood altering substances to individual drug users, their families and their communities[5].

In addition, harm reduction initiatives are consistent with:

- Supply and demand reduction (where these are assessed in terms of their ability to reduce harm);
- Support for abstinence (cessation in the case of cigarette smokers) and the lowering of use of drugs by individuals or particular groups; and
- An increase in use of drugs but decrease in harms they cause, to individuals, families and communities.

Harm reduction encourages the examination of drug use in a multifactorial context, where the relationship between the person and the drug, as well as the environment and the circumstances in which the person is using the drug are viewed. This approach examines factors involved in the drug use such as the availability of the

drug in the community and the broader social issues and inequalities that may give rise to drug use.

The term ‘harm minimisation’ is sometimes used as an alternative to ‘harm reduction’ but in recent years the term has become increasingly muddied and diluted in its use as it has been used to support conflicting goals.

10 Treatment Options

While the numbers of people seeking assistance for treatment of cannabis increases and research indicates that cannabis can be addictive there has been little research on the effectiveness of treatment options for cannabis misuse[6]. The research on pharmacological interventions for cannabis withdrawal and craving is in its infancy and there has been no randomised control trials in this area[6].

Treatment options for cannabis dependence are much fewer than for alcohol or opiate dependence. They generally include some form of psychological treatment such as Cognitive Behaviour Therapy or Motivational Interviewing.

Australian and overseas studies provide some support for effectiveness for brief intervention programs using these techniques. Several small studies with specific population groups show some effectiveness for vouchers for retail products as an incentive for cannabinoid free urine samples. Much of the literature focuses on interventions with young people[6].

It is important that doctors are aware of the harms that can occur from cannabis and to engage in continuing education as the evidence regarding cannabis continues to develop. Doctors, particularly general practitioners, are strategically placed to educate people regarding the use of cannabis and to assist those with problems associated with cannabis.

11 The AMA Position:

11.1 The Australian Medical Association does not condone the use of cannabis for non-medical purposes – it is a harmful drug.

11.2 The Australian Medical Association believes that cannabis use, as will all licit and illicit drug use, needs to be viewed in terms of social determinants and the social gradient, whereby people living further down the gradient are at greater risk of drug harms.

11.3 The Australian Medical Association considers cannabis use to be both a health and social issue.

11.4 The Australian Medical Association considers cannabis as a drug that causes a range of health and social harms at the individual and community level.

11.5 The Australian Medical Association supports a harm reduction approach to cannabis use.

12 Harm from Cannabis

12.1 The Australian Medical Association believes that the harms associated with cannabis use should be viewed along with the continuum of harms caused by both licit and illicit drugs. The mental health and other harms to the individual cannabis user can be debilitating. The absolute risk of harm to users is small but there is a dose-response relationship with the more cannabis consumed the greater the risk of experiencing harm.

12.2 The Australian Medical Association believes the response to cannabis use should be one whereby cannabis users are diverted into education or treatment programs. Law enforcement should target the suppliers of cannabis.

12.3 The Australian Medical Association supports the development and use of evidence based harm reduction programs. Such programs need to be thoroughly and prospectively evaluated.

12.4 The Australian Medical Association supports a public education campaign to demonstrate that ‘soft’ or ‘recreational’ drugs, as any drug, can have serious and harmful effects. This is particularly relevant for cannabis.

12.5 The Australian Medical Association supports the widespread availability of appropriate evidence based information and education on cannabis, particularly to young people.

12.6 The Australian Medical Association recognises that children can have significant neurological effects as a result of accidental ingestion of cannabis. Children should be protected from any exposure to cannabis. All doctors should consider cannabis ingestion in a toddler or child with reduced consciousness levels and with or without abnormal neurological findings.

13. Cannabis and Mental Health

13.1 The Australian Medical Association believes the current evidence supports cannabis being a component cause in the development of psychosis. The precise strength of this causal relationship is currently unknown. The AMA recognises the role for further prospective population based cohort studies, particularly of young people, to examine the strength of this relationship. Cannabis use can aggravate mental illness in those who have a predisposition or have a pre-existing mental illness.

13.2 The Australian Medical Association supports research, from both a genetic and socioeconomic perspective, to identify those young people most at risk of cannabis induced psychosis and the efforts that can be made to reduce that risk.

13.3 The Australian Medical Association calls for suitable treatment and support services for those who are affected by mental health consequences of cannabis use, and their families.

14 Responses to Cannabis Use

14.1 The Australian Medical Association believes that doctors have an important role in educating people about cannabis and supporting those with problems associated with cannabis. The AMA calls for better links with primary care and specialist mental health and drug and alcohol services. There is a need to reduce barriers and improve services for those seeking treatment for problems associated with cannabis.

14.2 The Australian Medical Association believes that responses to cannabis need to cover protection, identification, diagnosis, treatment and rehabilitation.

14.3 Prevention

14.3.1 The Australian Medical Association believes that as younger people and those who use cannabis frequently are most at risk of harm, early intervention programs and initiatives to avoid, delay and reduce the frequency of cannabis use are essential.

14.3.2 The Australian Medical Association believes that school based life skills programs that are evidence based can assist in preventing or reducing substance use problems. No child should be denied access to such programs.

14.3.3 The Australian Medical Association calls on government to undertake specific initiatives to reduce the social inequalities that increase the risk of harm from drug use to persons and communities who live further down the social gradient.

14.3.4 The Australian Medical Association calls on government funding for harm reduction to be increased to be at least equal to that currently allocated to use reduction (law enforcement).

14.4 Identification

14.4.1 The Australian Medical Association encourages medical practitioners to be aware of dual diagnosis (psychiatric and alcohol and drug disorder) issues and multiple drug use problems when taking patient histories, especially of young people.

14.5 Diagnosis

14.5.1 The Australian Medical Association encourages medical practitioners to be aware of the diagnostic criteria for cannabis related disorders when assessing and diagnosing patients identified as having a cannabis use problem.

14.6 Treatment

14.6.1 The Australian Medical Association calls on Government to fund research into the best treatment methods, including the development of possible suitable pharmacotherapies, for those who are dependent on cannabis or those who wish to reduce or cease their use.

14.6.2 The Australian Medical Association calls for psychological and pharmaceutical evidence based treatments to be available for those who wish to decrease or cease their use of cannabis.

14.7 Rehabilitation

14.7.1 The Australian Medical Association believes that those with cannabis related disorders require appropriate rehabilitative services as they manage their disorder.

15 Medical Uses of Cannabis

15.1 The Australian Medical Association considers cannabis may be of medical benefit in:

- HIV-related wasting and cancer-related wasting; and
- Nausea and vomiting in people with cancer, undergoing chemotherapy, which does not respond to conventional treatments.

15.2 The Australian Medical Association believes that more research needs to be undertaken to determine the medical benefit of cannabis in:

- Neurological disorders including (but not limited to) multiple sclerosis and motor neuron disease; and
- Pain unrelieved by conventional treatments.

15.3 The Australian Medical Association supports research to examine whether cannabinoids provide any greater benefit than the newer antimetics.

15.4 The Australian Medical Association considers that smoking or ingesting a crude plant product is a harmful way to deliver cannabinoids. The AMA supports more research into other ways of delivering cannabinoids as well as their safety and efficacy in proven medical treatments.

15.5 The Australian Medical Association believes any promotion of the medical use of cannabinoids will require extensive education of the public and the profession on the harmful effects of non-medical use of cannabis.

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