

Nurses caring for patients with life-limiting or terminal illnesses who use illegal cannabis face a number of legal and professional dilemmas

# Therapeutic use of cannabis

## In this article...

- › The pharmacology of cannabis
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- › How nurses can deal with legal and professional dilemmas

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Therapeutic cannabis use raises a number of dilemmas for nurses. This article examines the legal, political and ethical challenges raised by the use of cannabis by people with life-limiting or terminal illnesses in their own homes. (Throughout this paper, the term cannabis refers to illegal cannabis unless specified.)

A literature review of databases from 1996 was conducted and internet material was also examined. Evidence on the therapeutic use of cannabis suggests it may produce improvements in quality of life, which has led to increased use among people with life-limiting illnesses. The cannabis used is usually obtained illegally, which can have consequences for both those who use it and nurses who provide treatment in the community.

The potential for using cannabis therapeutically has been well documented in the media and in medical and other health and social care journals (Green and de-Vries, 2010; Peat, 2010; Megget, 2009). The increase in public debate and research into its physiological effects and

pharmacological qualities is reflected in the rise in publications over the last decade.

The legal status and use of cannabis entered the political arena in recent years. This is not only because of its potential use in healthcare but also because it is the most frequently used recreational illegal drug in the UK and worldwide and, more recently, because of its links with mental health problems.

Much media coverage has been linked to the change in status of cannabis under the Misuse of Drugs Act 1971, which changed it from a class C to a class B drug in January 2009. At the time of this change, debate focused on the adverse psychotropic effects of cannabis that could affect those with a predisposition to psychosis more seriously – specifically the increased risk in younger users of early onset psychosis, particularly when using stronger varieties such as skunk (Wilson, 2011).

Nurses and other health professionals need to be aware of the most recent research on the use of cannabis as a recreational and therapeutic drug, as they will find that a number of people they care for have chosen to use it.

This article focuses on the use of cannabis in life-limiting and terminal illnesses and draws on the literature that debates its use in this context. It also examines the wider literature on cannabis to provide an overview of issues relating to the law and nursing practice. The article provides a forum for further discussion by exploring the implications for nurses when caring for patients using cannabis.

## 5 key points

**1** Nurses have a responsibility to be well informed about research on all medications

**2** taken by patients, including licensed, pharmacologically prepared and illegal cannabis

**3** Patients should be given information about the physical and psychological effects of illegal cannabis and how it may interact with prescribed medication

**4** Nurses should ensure they document patients' cannabis use, its effects and side-effects

**5** They should ensure patients are aware of the Misuse of Drugs Act 1971 and of the penalties for using cannabis

**6** Nurses should not get involved in supplying, funding, obtaining or preparing cannabis for patients even if the latter are unable to do this



Be aware of the most recent research on cannabis



## “The move to a graduate-level workforce will raise practice standards”

Ursula Gallagher > 24

### Pharmacology of natural and synthetic cannabinoids

*Cannabis sativa* is a plant that has a total of 66 cannabinoids, which form the basis for cannabis. Cannabis is derived from delta-9-tetrahydrocannabinol (THC), the compound associated with the psychoactive properties of cannabis and is a mild analgesic. Cannabidiol (CBD) is the major component of medicinal cannabis and has been identified as providing relief from nausea and pain and also increases appetite.

Cannabis comes in the form of hashish or hash, which is a resin; historically, it is the most common form of cannabis and is imported from, for example, Morocco as well as Afghanistan, Pakistan and Lebanon. Grass – dried flower heads, leaves or buds, also known as herbal cannabis – is grown in the UK (inaccurately termed “home grown” when it is usually grown on an industrial scale) and is the most prevalent type available. Skunk, a strong version of cannabis originally grown by selective breeding of cannabis plants, can provide a more intense experience, which is sometimes hallucinogenic. Intensively cultivated skunk can produce a THC concentration of about 15-20% compared with “traditional” cannabis which gives around 3% or less (Mind, 2011). Those who use cannabis as part of symptom management and pain relief in life-limiting and terminal illnesses may not want this particular effect associated with skunk and stronger varieties of cannabis. Box 1 outlines the effects of cannabis.

Cannabis is usually smoked. Adverse reactions to it are similar to those from medicinally formulated cannabis or cannabinoids and can be dose related. The sometimes greater effects of illegal cannabis may be associated with stronger strains such as skunk.

Cannabis is available in a number of countries as a synthetic product. Dronabinol (Marinol) is licensed in the US in the form of drops and capsules and Canada (an analogue of dronabinol called nabilone, trade name Cesamet) in the form of capsules. These are licensed for use in nausea and vomiting associated with cancer chemotherapy and in the US for AIDS-related weight loss. Nabilone, a synthetic form of THC, which has greater potency and a longer half-life than other forms of THC, is licensed in the UK for nausea and vomiting caused by chemotherapy, and is available in capsules.

Cannabis is also available as a natural derivative. Sativex, the brand name for a form of cannabis extract containing THC

### BOX 1. EFFECTS OF CANNABIS

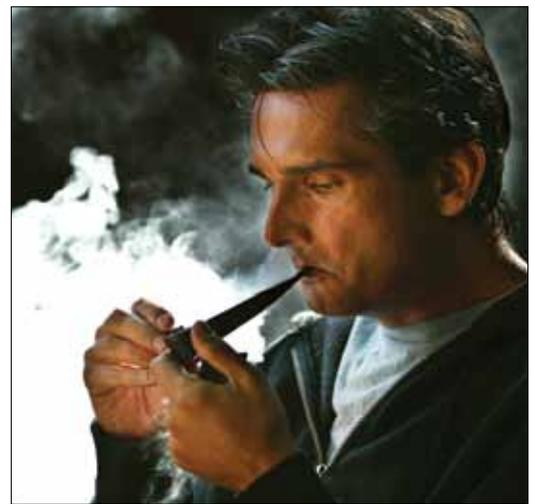
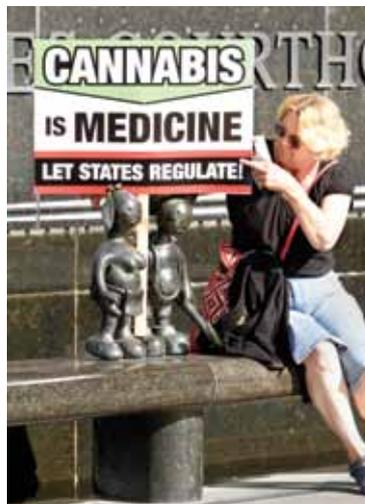
- Tachycardia
- Postural hypotension
- Bloodshot eyes
- Increased appetite
- Perceptual alteration (for example hallucinations)
- Time distortion
- Impairment of short-term memory when using the drug and with regular use
- Poor attention
- Some people may feel uninhibited
- Those who have mental health issues associated with anxiety, panic attacks and paranoia may find their symptoms are exacerbated (DrugScope, 2011)
- People with a history of or predisposition to psychosis, particularly young people, may experience a psychotic episode when using cannabis so therapeutic cannabis is not recommended for them (Kraft and Kress, 2009)

and CBD, is licensed in Canada for pain in cancer and multiple sclerosis (MS). It has recently become available on prescription in the UK as an oromucosal spray to treat spasticity in MS (British Medical Association and Royal Pharmaceutical Society of Great Britain, 2011). The Pennine Acute Hospitals Trust (2011) is evaluating the use of Sativex at two of its hospitals for relieving chronic pain in people with advanced cancer who have not achieved adequate pain relief from opioids. These forms of medicinal cannabis act on the same cannabinoid receptors in the brain as illicit cannabis, providing a similar experience to smoking the drug.

### Life-limiting and terminal illnesses

The general view of integrating cannabis-derivative medications into mainstream medical use remains extremely cautious, with most studies concluding with a call for more clinical trials to examine optimal administration routes and dosing regimens (Amar, 2006; Berlach et al, 2006; Howard et al, 2005; Amtmann et al, 2004).

The use of cannabis in oncology has



Clockwise from above: More than 200 medical marijuana patients and supporters protested against the US Attorney’s office crackdown on medicinal marijuana dispensaries in Sacramento in California in November last year; Julian Roy is one of more than 800 Canadians permitted by Health Canada to possess dried marijuana for medicinal purposes – he uses the drug to relieve chronic pain caused by severe arthritis; Di and Andrew Coldwell, after she addressed the Labour Party Conference in Bournemouth, saying that cannabis should be made legal for medicinal purposes. Mr Coldwell has multiple sclerosis, glaucoma and arthritis of the spine.



Reflexstock, PA

focused on symptom management, specifically on managing nausea and vomiting associated with chemotherapy (Delmás, 2010; Cotter, 2009; Rocha et al, 2008). Examples of improvement in chronic non-cancer pain have also been noted (Howard et al, 2005).

There is some disagreement on the most appropriate means of administering cannabis in a medical context among both medical experts and the public. Some argue there is a case for administering it in its “natural” state, preferably smoked, to gain the most efficacy as a treatment (Lynch and Clark, 2003; Chatterjee et al, 2002). Smoking is often the preferred route by those who use it medicinally, as the rapid absorption that occurs through smoking allows self-titration (Grotenhermen, 2003).

Cotter’s (2009) systematic review suggested that:

- » Cannabis and synthetic oral THC are more effective than placebo in treating chemotherapy-induced nausea and vomiting from drugs of high emetic potential;
- » Smoked cannabis and oral THC are equally efficacious in controlling symptoms of nausea and vomiting;
- » When compared with traditional oral antiemetics, smoked cannabis and oral THC were found to be equally effective.

Systematic reviews have concluded there are no reported “objective” improvements in symptoms associated with MS, such as ataxia, tremors and spasticity (Thaera et al, 2009; Campbell et al, 2001). However, improvements in “subjective” assessments of spasticity and other related symptoms have been noted consistently (Thaera et al, 2009; Fox et al, 2004). This raises questions about sensitivity and validity of objective outcome measurements (Thaera et al, 2009). Despite research suggesting that cannabis use has minimal benefits for people with MS, a number of surveys suggest that significant numbers with the condition use it to manage symptoms (Rog, 2010; Thaera et al, 2009; Collin et al, 2007).

More recently, there are indications that cannabinoids may slow the progression of neurodegeneration and there is growing interest in the possible neuroprotective properties of cannabinoids for a range of neurodegenerative diseases including:

- » Parkinson’s disease;
- » Alzheimer’s disease;
- » MS;
- » Huntington’s disease;
- » Motor neurone disease (Romero and Martinez-Orgado, 2009; Pryce and



Different forms of illegal cannabis

Baker, 2007; Lastres-Becker and Fernandez-Ruiz, 2006; Croxford, 2003).

The neuroprotective capacity of cannabinoids is yet to be definitively shown; follow-up of patients with MS suggests that THC may have a neuroprotective effect, and clinical trials are ongoing (Zajicek et al, 2005). There is growing clinical trial data that supports neuroprotective effects in preclinical models of CNS disease; however, as the majority of studies on the neuroprotective properties of cannabinoids have used animal models, there is no empirical evidence on their use in humans (Hill et al, 2012).



The literature on the use of cannabis in healthcare has repeatedly referred to changes that may be equated with improvement in quality of life as an outcome (Amtmann et al, 2004; Wade et al, 2003). Side-effects, for example benefits from the euphoric state that cannabis can induce, have been shown to affect quality of life (Amtmann et al, 2004; Fox et al, 2004).

There is also growing evidence supporting the synergy between opioids and cannabinoids and the latter’s potential to produce opioid-sparing effects as well as extend the duration of analgesia and reduce opioid tolerance and dependence. This has important implications for the role of cannabinoids in palliative care (McCarberg, 2007).

#### The future of therapeutic cannabis

Media and internet reports indicate that people with neurodegenerative diseases

and life-limiting conditions are increasingly using cannabinoids, as some in this group perceive they receive therapeutic benefit from the illegal consumption of cannabis.

These people are seen by nurses (and/or allied health professionals) at some stage during their illness, particularly in the community. This means the use of therapeutic cannabis becomes a patient advocacy issue for nurses (Mathre and Krawitz, 2002). While many drugs used in palliative care belong in categories of high toxicity, THC and other cannabinoids have remarkably low toxicity and no lethal doses in humans have been described (Carter and Ugalde, 2004).

Literature on drug dependency and the relief of chronic pain focuses on the use of opioids and no searches identified a link between: palliative care; symptom management; cannabis; and dependency in the search terms. Risk of dependency on cannabis for people using it to manage symptoms in life-limiting illness and palliative care is less of a consideration than the benefits to quality of life and symptom management (Green and de-Vries, 2010; Peat, 2010). Furthermore, the potential for misuse of the synthetic cannabinoid nabilone in chronic pain is low, and cases of misuse are rare (Ware and St Arnaud-Trempe, 2010).

Hall and Degenhardt (2003) suggested that perhaps the best prospects for the therapeutic use of cannabinoids lie in finding ways to deliver THC that do not involve smoking and in developing synthetic cannabinoids that produce therapeutic effects with the minimum psychoactive effects.

They also proposed that, while awaiting these developments, patients with specified medical conditions could be given exemptions from criminal prosecution to

grow cannabis for their own use at their own risk so they could obtain it without resorting to the black market (Hall and Degenhardt, 2003). This would not require doctors to prescribe or governments to provide cannabis.

### Legal issues for nurses

Decisions about reporting cannabis use should be made in consultation with the multiprofessional team and should be informed by local service policies and protocols. Nurses are in positions of trust and should respect people's right to confidentiality, which is a fundamental aspect of professional practice.

For patients using cannabis in their own home, nurses' professional duty is to protect patient confidentiality. Patients have the right to expect that any information about their use of cannabis in relation to treatment they are receiving will not be disclosed to another person without their consent, and only shared for the purpose for which it was given. For example, a nurse needing advice on the possible interactions where a patient is using cannabis and a prescribed medication may need to seek a pharmacist's advice. Patients should be informed that sharing this information is in their interest and will enhance care.

In the case of those who use cannabis to manage a life-limiting illness, their carers and other professionals involved in providing care should be aware of the Misuse of Drugs Act 1971 and related laws. Agencies and services involved in providing treatment must have clear policies and procedures, which include legal considerations, when it is known that some patients use cannabis regularly. This provides clear information for nurses and other health professionals and encourages a consistent approach when patients use cannabis.

Nurses may need to disclose information if they believe someone may be at risk of harm. Disclosure without consent may occur when there is a serious crime and to prevent serious harm or abuse to others, for example, when drug dealing is taking place in a patient's home that puts them at risk of abuse.

Each case should be judged individually and considered with local policy, procedures and the law. This highlights the importance of keeping clear records of decision-making and advice sought and given, which may include taking advice from the police. Nurses should seek advice from the Nursing and Midwifery Council and professional colleagues in these situations (NMC, 2008).

### Conclusion

Despite evidence that the therapeutic use of cannabis may improve quality of life for certain patient groups, its use remains a criminal activity under the Misuse of Drugs Act 1971.

This has potential consequences for patients, carers and health professionals. When faced with patients who use or want to use cannabis for symptom management and to improve quality of life, nurses may be in a position of moral and professional conflict. However, they have a professional responsibility to keep informed about up-to-date research on the therapeutic use of cannabis while also making moral, ethical and clinical judgements that are in the best interests of their patients. These judgements must also be in keeping with the specific healthcare needs of the patient group. **NT**

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