

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/47335293>

# Cannabis use in palliative care – an examination of the evidence and the implications for nurses

Article *in* Journal of Clinical Nursing · September 2010

DOI: 10.1111/j.1365-2702.2010.03274.x · Source: PubMed

---

CITATIONS

7

---

READS

231

## 2 authors:



Anita J Green

National Health Service

26 PUBLICATIONS 108 CITATIONS

SEE PROFILE



Kay de Vries

University of Brighton

35 PUBLICATIONS 178 CITATIONS

SEE PROFILE

## Cannabis use in palliative care – an examination of the evidence and the implications for nurses

Anita J Green and Kay De-Vries

**Aim and objective.** Examine the pharmaceutical qualities of cannabis including a historical overview of cannabis use. Discuss the use of cannabis as a clinical intervention for people experiencing palliative care, including those with life-threatening chronic illness such as multiple sclerosis and motor neurone disease [amyotrophic lateral sclerosis] in the UK.

**Background.** The non-medicinal use of cannabis has been well documented in the media. There is a growing scientific literature on the benefits of cannabis in symptom management in cancer care. Service users, nurses and carers need to be aware of the implications for care and treatment if cannabis is being used medicinally.

**Design.** A comprehensive literature review.

**Method.** Literature searches were made of databases from 1996 using the term cannabis and the combination terms of cannabis and palliative care; symptom management; cancer; oncology; chronic illness; motor neurone disease/amyotrophic lateral sclerosis; and multiple sclerosis. Internet material provided for service users searching for information about the medicinal use of cannabis was also examined.

**Results.** The literature on the use of cannabis in health care repeatedly refers to changes for users that may be equated with improvement in quality of life as an outcome of its use. This has led to increased use of cannabis by these service users. However, the cannabis used is usually obtained illegally and can have consequences for those who choose to use it for its therapeutic value and for nurses who are providing care.

**Relevance to clinical practice.** Questions and dilemmas are raised concerning the role of the nurse when caring and supporting a person making therapeutic use of cannabis.

**Key words:** cancer, cannabis, motor neurone disease, multiple sclerosis, palliative care, quality of life

Accepted for publication: 17 February 2010

### Introduction

The non-medicinal use of cannabis has been well documented in the media, with several high profile court cases highlighting its usage amongst the older population and those with chronic illness, cancer and who are dying (John 2000, Smith 2009). This in turn has led to further media debates focussing on the pros and cons of the legalisation

of cannabis and its use (BBC 2001). Service users, the nursing profession, other health care professionals and carers need to be aware of the legal, pharmacological, physiological and psychological implications of using cannabis for medicinal purposes and must also be well informed and understand the implications for care and treatment if cannabis is being used medicinally on a regular basis.

**Authors:** *Anita J Green*, D.Nursing, MA, BA, RCNT, RGN, RMN, Dual Diagnosis Nurse Consultant and Visiting Fellow, University of Brighton, Sussex Partnership NHS Foundation Trust, Mill View Hospital, Hove, East Sussex; *Kay De-Vries*, PhD, MSc, PGCEA, BSc, RGN, Research Fellow/Senior Lecturer (Joint post), Division of Health and Social Care, Faculty of Health and Medical Sciences, University of Surrey, Princess Alice Hospice, Esher, Surrey, UK

**Correspondence:** Anita J Green, Dual Diagnosis Nurse Consultant and Visiting Fellow, University of Brighton, Sussex Partnership NHS Foundation Trust, Mill View Hospital, Nevill Avenue, Hove, East Sussex BN3 7HZ, UK. Telephone: 01273 621984.

**E-mail:** anita.green@sussexpartnership.nhs.uk

This study examines the pharmaceutical qualities and use of cannabis as a clinical intervention for people experiencing palliative care, including those with multiple sclerosis (MS) and motor neurone disease (MND) [amyotrophic lateral sclerosis (ALS)] in the UK context. The study draws on the literature which explores the history of cannabis and the debates which surround its use as an illicit drug. The study goes on to discuss the research which debates the therapeutic use of cannabis in palliative care. Research literature from oncology and cancer care is also drawn on in relation to symptom management and its relevance to palliation which includes international literature. It concludes with a discussion from the authors regarding the issues that may be encountered by service users who have chosen to use cannabis as an alternative or complementary medication.

Complexity of clinical nursing practice and the implications of using unlicensed (illegal) medications/drugs need to be considered in relation to Quality of Life (QOL) and symptom management not only for people who require palliative care but also those who experience chronic illness. This study raises questions that are not intended to be answered but intended to raise awareness for nurses in areas of practice, where people are dying or suffering as a result of chronic, potentially life-threatening illnesses. Palliative care prides itself on adopting a philosophy that emphasises the importance of not separating psychological and physical aspects of symptoms (Corner *et al.* 1996) and aims to improve the QOL for people who are dying [National Institute of Clinical Excellence (NICE) 2004]. Quality of life is a subjective state and in adopting this philosophy the palliative care field acknowledges the individuality and diversity of processes and means that dying people may use in achieving QOL as their life comes to a close.

## Method of review

Literature searches were made of databases CINHALL, Medline and DrugScope from 1996 using the term cannabis and combination terms of cannabis and palliative care; symptom management; cancer; oncology; chronic illness; MND/ALS; and MS. A hand search was also conducted of mainstream palliative care/medicine journals from two hospice libraries. Reference lists from journal articles identified in the database searches were also used to further identify articles not available on the Athens NHS database.

There was a dearth of studies that specifically focused on cannabis use in palliative care. However, examination of literature on symptom management in oncology and cancer care revealed studies that were relevant to dealing with symptoms for people whose disease was palliative.

## The pharmaceutical qualities of cannabis

Unprocessed cannabis is usually derived from the female plant of *cannabis sativa* and contains more than 60 cannabinoids and more than 400 chemical compounds. Cannabinoids are the psychoactive substances found in cannabis (Wilbourn & Prosser 2003). The main natural cannabinoids of therapeutic interest are delta-9-tetrahydrocannabinol (delta-9-THC, or THC), which is the most abundant and the primary psychoactive constituent, (Hirst *et al.* 1998), delta-8-THC, cannabidiol and Cannabidiol. The highest THC content can be found in the flowers, with less in the leaves, stems and seeds. In marijuana the THC content is prepared from the dried flowers and leaves and in hashish the THC content consists of dried cannabis resin and compressed flowers (Adams & Martin 1996).

Historically, hashish or hash has been the most common type of cannabis found illegally for sale in the UK in the form of a resin usually imported from primarily Morocco but also Afghanistan, Pakistan and the Lebanon. 'Grass', which is dried herbal cannabis, grown in the UK ('homegrown') is now the most prevalent type and dominates the UK market (Shapiro 2009). Herbal cannabis in the form of 'skunk' is a more potent form of dried cannabis. Varieties such as skunk, netherweed and sinsemilla may contain very high amounts of THC (Hall & Solowij 1998). Some of the homegrown herbal 'super skunk' varieties give a more intense sometimes hallucinogenic experience, (DrugScope 2009) which may not be the experience required by those with chronic illness and cancer.

Cannabis is usually smoked alone or with tobacco in the form of a 'joint'. The tobacco in a joint helps burning. Cannabis smokers tend to inhale more deeply than a cigarette smoker and hold in the smoke to maximise absorption into the lungs. Cannabis can also be consumed through a bong (a glass container filtering device or home-made pipe), eaten when included in food such as cakes and stews or drunk as a tea. Smoking tends to be preferred because of the rapid absorption after inhalation, which takes effect in minutes; maximum brain concentration is reached in 15 minutes. Smoking is often the preferred route of intake for medicinally used cannabis, usually because the rapid absorption of the drug allows self-titration (Grotenhermen 2003). Taken orally the therapeutic window is limited, because the way it is slowly absorbed by the gastrointestinal tract and metabolised by the liver. Blood concentrations reach approximately 25–30% of the same dose smoked and the effect could be delayed by up to two hours [British Medical Association (BMA) 1997]. THC is sequestered in fatty tissues and slowly released back into the blood stream and to the brain reaching

peak concentrations in four-five days. The half-life is eliminated at approximately seven days. Complete elimination of a single dose can take up to 30 days (Maykut 1985 cited Ashton 2002). Cannabis is unsuitable for intravenous use because it is insoluble in water (Ashton 2002).

Smoking cannabis has stimulant and sedative effects, the manifestations include increased pulse rate, lowering of blood pressure when standing, bloodshot eyes and increased appetite. Other experiences could also be perceptual alteration, time distortion, short-term memory and poor attention. If cannabis is eaten, these effects will take longer to occur and the duration may be prolonged. During intoxication co-ordination and short-term memory can also be affected and individuals may feel less inhibited. Those with a predisposition to anxiety, panic attacks and paranoia may find that their symptoms are exacerbated when taking cannabis, particularly, the skunk variety (DrugScope 2009).

The development of vaporisers and sublingual sprays, such as nabilone containing either THC or synthetic cannabinoids which act on the same receptors in the brain as illicit cannabis, provides a similar experience for those who have previously smoked cannabis. The use of these methods of administration helps to overcome the difficulties inherent in controlling the dose as an oral administration for pain relief (Mather 2000) so ensuring more effective titration. It is important that nurses understand the significance of the pharmaceutical qualities and effects of prescribed THC or synthetic cannabinoids when they are in the position of supervising the use of other prescribed medications or in the role of a prescriber.

## Cannabis and its history

Cannabis has long been known in folk custom and practice for its medicinal properties. More recently there has been considerable interest in the therapeutic potential of cannabis and its derivatives (Patient UK 2009). Research and anecdotal evidence has made health care professionals, service users and their carers more aware of the therapeutic value of cannabis for several conditions including asthma, glaucoma, mild to severe pain and muscle spasms, muscular spasticity, MS, MND/ALS and included as part of drug treatments in palliative care and AIDS (Bagshaw *et al.* 2002, Woolridge *et al.* 2005, Palliative drugs 2009). This literature is discussed in more detail later on in the article.

Cannabis was widely used as a herbal remedy, for religious ceremonies and for enjoyment in ancient times in the Middle East, India and China. It was brought to Western Europe at the beginning of the 19th century by soldiers in Napoleon's army who had been fighting in North Africa (DrugScope

2009) The advocacy of the therapeutic use of cannabis appeared in European and US medical articles from 1849 (Walton 1938 cited Mathre & Krawitz 2002). A British physician, William B O'Shaughnessy, published a review of animal and human clinical trials into cannabis use for rheumatism, cholera and tetanus (Mathre & Krawitz 2002, p. 3).

Cannabis continued to be available for medicinal purposes. However, non-medicinal use of cannabis was originally banned in the UK in 1928 after South African and Egyptian delegates at an opium conference persuaded UK delegates that cannabis caused insanity. Recreational use was negligible, particularly outside London and it was not until the 1960s that cannabis use amongst young people became more widespread. It has become the most popular illicit drug in the UK DrugScope (2009).

In 1998 the Select Committee on Science and Technology reported the findings of an inquiry into the therapeutic uses of cannabis entitled, 'Cannabis: The Scientific and Medical Evidence (November 1998). The Report recommended that while cannabis and its derivatives should remain controlled drugs, doctors should be permitted to prescribe an appropriate preparation of cannabis, as an unlicensed medicine, for a named patient. This recommendation was immediately rejected by the government. The Government was concerned that if cannabis was permitted to be prescribed, the general public would construe this as condoning recreational use of cannabis. The committee responded to this stating as follows:

We regret that the mind of the Government appears to be closed on this issue and hope that results of new research now under way may cause them to revisit our recommendations ... (Select Committee on Science and Technology, 2nd Report, 1999, p. 5)

A short inquiry was convened in March 2001 to revisit issues documented in the 1998 report; its focus was on the therapeutic use of cannabis and cannabis-based medicines.

At the time of this report the Medicines Control Agency (MCA) agreed that the toxicology profile of THC ensured that it was suitable for long-term trials and an oral synthetic preparation called 'Marinol' was already available to be prescribed by doctors (Select Committee on Science and Technology: 2nd Report, 1999). The MCA was unsure about the toxicology data on CBD which had shown some evidence of inhibiting spermatogenesis in animals. This further delayed the drug trials for a cannabis-based prescription medicine. The select committee disagreed with these conclusions for three reasons: that the MCA treated cannabis as a 'new' medicine even though it had a long history of being used for medicinal purposes; the evidence of inhibiting spermatogenesis involved extremely large doses well in excess of the

amounts being contemplated for therapeutic use; that the side effects may be viewed as insignificant by those suffering from chronic, incapacitating illnesses.

### Clinical use of cannabis in palliative care

Specialist palliative care has a history of innovative practices in managing symptoms using several medications to treat conditions for which the specific drug has not been licensed (palliativedrugs.com 2009), also referred to as 'off-label' (Berlach *et al.* 2006). The licensing process of drugs regulates the activities of pharmaceutical companies and not doctors prescribing practice; therefore, drugs prescribed outside the licence can be dispensed by pharmacists and administered by nurses (Palliative drugs 2009).

The place of cannabis in managing symptoms in palliative care may be categorised in the 'best practice' 'case study' category as, following a comprehensive review of the clinical trial literature up to 2000, Bagshaw *et al.* (2002), conclude that based on available information there is no 'medical' support for the use of cannabinoids in palliative care in most clinical settings. Clinical trial literature since 2000 has continued to make this conclusion. However, Bagshaw *et al.* (2002) provide a primarily medically focused review, with little account taken of whether the QOL is improved for people as an outcome of using cannabis in a palliative care context.

The general view of integrating cannabis derivative medications into mainstream medical use remains extremely cautious, where the call for more clinical trials that examine optimal administration routes and dosing regimes is the conclusion of most studies on this subject (Berlach *et al.* 2006, Howard *et al.* 2005, Amtmann *et al.* 2004, Glare *et al.* 2004, Bagshaw *et al.* 2002, Kumar *et al.* 2001). It is repeatedly pointed out that the development of cannabis and isolated synthetic cannabinoids for medical purposes is still in its infancy and has a long way to go. This concern is expressed more specifically in relation to use in oncology (de Jong *et al.* 2005) where cure of cancer remains the focus. The use of cannabis in oncology has focused on symptom management, specifically managing nausea and vomiting associated with chemotherapy (Tramer *et al.* 2001, Hays 2001, Musty & Rossi 2000, Machado Rocha *et al.* 2008, Cotter 2009) and radiotherapy (Dutch Ministry of Health 2003, de Jong *et al.* 2005). Cannabis derivatives have been approved for use as antiemetics for chemotherapy-induced nausea and AIDS-associated anorexia/cachexia (Bagshaw *et al.* 2002, Woolridge *et al.* 2005). Of interest is the use of cannabinoids for appetite stimulation (Guzmán 2003), particularly if administered in low to moderate doses (Berry &

Mechoulam 2002). However, more research is required in establishing the exact effect of cannabinoids on the central control of appetite. Studies from oncology and cancer care are highly relevant to symptom management in palliative.

Although cannabinoids have proven analgesic properties in research using animal models, systematic reviews on the efficacy of cannabis in pain control for humans suggest that there is as yet inconclusive evidence that cannabis has any major therapeutic role in pain management (Campbell *et al.* 2001, Kumar *et al.* 2001, Bagshaw *et al.* 2002). There are repeated calls for further clinical trial research on cannabis use in a range of conditions. For example, a survey of 86 patients with sickle cell disease report 36% of this group used cannabis, primarily for pain relief and to induce relaxation and relieve anxiety and depression (Howard *et al.* 2005). Studies which have addressed the analgesic use of cannabis have demonstrated significant pain relief and reduction in pain intensity (Berlach *et al.* 2006). However, the literature reveals that in some instances, unacceptable side effects have been shown to be a significant barrier in using cannabis to manage pain (Hall & Solowij 1998, Ashton 1999).

Despite the above issues that have been raised in clinical trials, examples of improvement in chronic non-cancer pain are regularly cited in the literature (Howard *et al.* 2005). Other improvements include the following: reduction in spasticity, bladder spasm and improved sleep for a woman with multiple sclerosis (MS); decreased to discontinued use of opioids in a case of HIV-related painful peripheral neuropathy; and of a person with a six-year history low back pain and left leg pain (Lynch & Clark 2003). Chatterjee *et al.* (2002) report a similar response in the case of thalamic pain and dystonia, and Krenn *et al.* (2003) report a successful case of cannabinoid rotation for treatment of chronic cystitis. Hays (2001) describes a case of a young man with myotonic myopathy who experienced dramatic relief of muscle weakness and mild relief of dysesthesia with the use of smoked cannabis. In this case it was found that synthetic cannabinoid (nabilone) was not effective and produced 'an unpleasant high feeling' and smoking was preferred.

As highlighted above, there is some disagreement on means of administering cannabis in a medical context and members of the public and medical fraternity. Musty and Rossi (2000), Lynch and Clark (2003) and Chatterjee *et al.* (2002) have argued that there is a case for cannabis to be administered in its 'natural' state, preferably smoked, to gain the most efficacy as a treatment. Kapur (2003) argues that there are issues regarding the subjective sensations of recreational cannabis use and an assumption that this automatically places it in a category for use as an analgesic. He uses the analogy of the use of alcohol as a medicine during the 19th century, the 'medical'

use of which was based on recreational use and suggests that 'the same omnipotent properties that are now being conferred on cannabis once were attributed to alcohol' (Kapur 2003:249). Despite these arguments there is a growing literature outlining cases of patients, families and their professional carers calling for legislation for access to cannabis sources. The counter argument to Kapur's ideas is that the scale and the sophistication of clinical trials that are possible now cannot realistically compare with the medicinal use of alcohol and cannabis two centuries apart.

The risk of cardiac fatalities in people with unknown preexisting cardiovascular disease has been highlighted (Bach and Morland (2001), but this claim is as yet unproven (de Jong *et al.* 2005). Despite the medical cautions outlined above and lack of evidence of efficacy on the use of cannabis for the palliative care population (Bagshaw *et al.* 2002), cannabis is classified in lists of 'conventional' medications used for this patient group. Preparations include nabilone, which is licensed for treatment of chemotherapy-induced nausea and vomiting and is used in palliative care settings in the UK for breathlessness and nausea (Watson *et al.* 2005, Frank *et al.* 2008), and dronabinol, a synthetic THC licensed for use in the USA (Woolridge *et al.* 2005). A recent randomised, crossover, double-blind study by Frank *et al.* (2008) comparing the analgesic effects and patient tolerability of nabilone and dihydrocodeine for chronic neuropathic pain suggested very slightly better pain relief effect from dihydrocodeine and no adverse reactions to either drug.

There is a history of discussion in the literature proposing medical use of cannabis for people with MS and a more recent literature on the use of cannabis for people with MND/ALS. Both MS and MND/ALS are terminal illnesses and are considered in the category of diseases that may be palliated.

## Cannabis and multiple sclerosis

Systematic reviews of clinical trials have concluded that there are no reported 'objective' improvement in symptoms associated with MS, such as ataxia, tremors and spasticity and also highlight issues of adverse side effects (Campbell *et al.* 2001, Kumar *et al.* 2001, Bagshaw *et al.* 2002). This is supported in a small study by Fox *et al.* (2004) on the effect of cannabis on tremor in patients with MS. No objective (measurable) relief was demonstrated but there was a non-significant trend for patients to report improvement in their tremor. What is of interest, in relation to QoL and palliative care principles, there was, as the researchers speculate, an alternative explanation for this. The mood-enhancing or cognitive effects of cannabis may have caused patients to feel less troubled by their tremors. The researchers postulate that

it was possible that the cannabis did not improve upper limb tremor magnitude or function (which they were measuring) but may have improved body tremor magnitude elsewhere in the body. That is, an internal feeling of tremulousness (internal tremor), or tremor occurrence rate (the duration for which the tremor is present per day) (Fox *et al.* 2004). They also suggest the possibility that a small improvement in tremor, below that which the study was powered to detect, may have been perceived by the patients. Despite research suggesting minimal benefits for people with MS in the use of cannabis several surveys suggest that significant numbers of this patient group make use of this to manage symptoms (Clark *et al.* 2004, Fox *et al.* 2004, Gorter *et al.* 2005). A randomised, placebo-controlled trial by Zajicek *et al.* (2003) suggests some clinical usefulness of cannabinoids based on objective improvement in mobility and patients' opinion of improvement in pain.

Under the existing legislation, patients who are using cannabis for medicinal purposes, if discovered in possession or found using cannabis, can face criminal prosecution. In January 2006 an organisation called THC4MS (Therapeutic Help From Cannabis for Multiple Sclerosis), a 'medi-weed co-operative' based in the UK were brought to the attention of the general public through the media after being prosecuted for supplying over 34,000 bars of free Cannabis chocolate to over 1800 MS sufferers. All three members of the organisation admitted to supplying cannabis. On the 26th January 2007 the three involved were charged and given nine months suspended sentences. The co-operative had been active for several years supplying Cannabis, avoiding prosecution, however, has now reverted to a pressure group.

TMC4MS has requested that people who use cannabis for MS send in details about how cannabis has helped them with their symptoms. A useful way of collecting anecdotal evidence, however, those who do not see any decreased symptoms would not necessarily contact the pressure group to say this.

The efficacy of cannabis for people with MS has led to pharmacological developments where, Sativex, a derivative of cannabis, has been approved for use on people with MS only, in the form of a buccal spray (GW Pharma 2006) and is used in palliative care settings for people with MS, specifically to alleviate symptoms of neuropathic pain. For people with MS to be prescribed Sativex by their GP, the GP has to apply to the Home Office with the person's full details – name, address, age gender, indication of clinical need and the dosage required. This process could be perceived as an encroachment on a person's confidentiality and does not 'fit' comfortably with the Patient/GP relationship based on trust and confidentiality.

## Cannabis and motor neurone disease

There is a growing interest in the use of cannabis in the management of MND/ALS; although, to date, no empirical studies of use and effectiveness of cannabis for symptom management for this patient group have been published. [Carter and Rosen \(2001\)](#) believe that cannabis properties, reported from studies on its use in other patient groups, particularly MS, are directly applicable to the management of MND/ALS. These include use as an analgesic, muscle relaxant, bronchodilator, saliva reducer, appetite stimulator, sleep inducer and promotion of a euphoric state that may counteract depression that often occurs for people with MND/ALS ([Carter & Rosen 2001](#), [Amtmann \*et al.\* 2004](#)). [Carter and Rosen \(2001\)](#) also point out that evidence is emerging that demonstrates cannabis to have strong antioxidative and neuroprotective effects which may prolong neural cell survival, a factor that is of interest in MND/ALS disease processes where excessive cellular oxidation occurs.

In an anonymous online survey of 131 people with MND/ALS, 13 had used cannabis in the last 12 months ([Amtmann \*et al.\* 2004](#) 12, 16). The survey results found that cannabis was moderately effective in reducing symptoms of appetite loss, depression, pain, spasticity, drooling and weakness and the longest relief reported was for depression. The pattern of symptom relief was consistent with those reported by people with other conditions, including MS ([Amtmann \*et al.\* 2004](#)). The factor that most predicted current use of cannabis was reported previous use (presumably recreational) ([Amtmann \*et al.\* 2004](#)). The limitations of the survey, particularly related to online survey methodology, are addressed by the authors; however, the findings indicate that there is a need for further research into the potential benefits of the clinical use of cannabis and particular note is made that pain is not sufficiently addressed for people with MND/ALS at the end of life and cannabis may prove to be a useful analgesic for this patient group ([Amtmann \*et al.\* 2004](#)).

## Quality of life, end-of-life care and cannabis

The literature on the use of cannabis in health care has repeatedly referred to changes for users that may be equated with improvement in QOL as an outcome of its use. For example, sleep improvement ([Wade \*et al.\* 2003](#), [Notcutt 2004](#)), appetite improvement (ALS) ([Amtmann \*et al.\* 2004](#)) reduction in depressive symptoms (ALS), ([Amtmann \*et al.\* 2004](#)) improvement in neurogenic bladder (MS) ([Consroe \*et al.\* 1997](#)). Even side effects have been shown to impact on QOL, for example the description by a patient of the benefits

of the euphoric state that cannabis induced side effects ([Carter & Rosen 2001](#), [Amtmann \*et al.\* 2004](#)) and as suggested in the MS study ([Fox \*et al.\* 2004](#)). There is growing support related to the synergy between opioids and cannabinoids and potential to produce opioid sparing effects as well as extend the duration of analgesia and reduce opioid tolerance and dependence and this has important implications for the role of cannabinoids in palliative care ([McCarberg 2007](#)).

In the field of palliative medicine the focus of care is on individual choice, patient autonomy, empowerment, comfort and QOL as defined by individual patients and their families and [Mathre & Krawitz \(2002\)](#) describes therapeutic cannabis as a patient advocacy issue for nurses. The 'case study' approach to reporting efficacy in use of cannabis supports the philosophy where drug use in palliative care is aimed primarily/exclusively at comfort measures and are in keeping with the innovative approach of 'therapeutic research' in palliative care practice ([Illhardt & ten Have 2002](#)). Many of the drugs used in palliative care belong to categories of high toxicity and have potentially lethal effects, whereas THC and other cannabinoids have remarkably low toxicity and no lethal doses in humans have yet been described ([Carter & Rosen 2001](#), [Bagshaw \*et al.\* 2002](#), [Carter & Ugalde 2004](#)).

## The position of the nurse in supporting cannabis use in practice

There is a steadily growing research evidence base that QOL is enhanced by the use of cannabis for people with chronic and life-threatening illnesses. This has led to increased use of cannabis by these groups. Much of this cannabis is obtained illegally. Based on the literature discussed in this article plus website material and documents (Department of Health 2008), it is possible that health care professionals, particularly nurses, may increasingly find themselves faced with a service user who is using or wants to use cannabis as a treatment modality, particularly in the groups described earlier – MS, MND/ALS and palliative care. They may have made their decision to use cannabis based on both scientific and unscientific data. Service users may then find themselves at risk of prosecution under the Misuse of Drugs Act.

Whatever the nurse's personal view is on someone who chooses to use cannabis, it is important to keep in mind the Code of Professional Conduct (2008). At this stage the question to be addressed is at two levels. The first is related to the caring position of the nurses in promoting QOL but also the position of collusion and the implications of moral and professional conflict. As a health care professional or nurse, should we be reminding the service user and their carers that

they are 'breaking the law' by using cannabis? Or should we acknowledge that their use of cannabis is a personal choice and should be given consideration when discussing the treatment and care being provided? A further dilemma that may need to be addressed by nurses in this position is that of harm reduction related to smoking cannabis by a patient who has a chronic life-threatening illness e.g. a non-smoker using tobacco mixed with cannabis in the form of a joint. Should the nurse be advising an alternative route of administration? Nurses must always act lawfully and ensure that they do not involve themselves in the supply, funding, obtaining and preparation of cannabis for illicit use; otherwise, they risk the loss of registration and could be found guilty of committing a criminal offence.

The police appear, mainly, to have chosen not necessarily to use the full force of the Misuse of Drugs Act (Department of Health 1971) when investigating cannabis use amongst younger people. It could be questioned as inappropriate to penalise a person who is using cannabis as a medicine to treat a chronic illness or to support palliative care when they have no criminal record or involvement in any criminal activity relating to illicit drugs apart from using it.

The BMA have advocated that medicinal forms of cannabis should be available to service users who benefit from its use (BMA 1997). Nurses should support the use of both quantitative research, (in the form of Randomised Controlled Trials) to clearly identify the medicinal qualities and qualitative research to provide data about the service users experience of using cannabis. This would ensure the delivery of care based on the best available evidence at the time (NMC 2008). It could be suggested that the yellow card system used by GPs could be adapted for use to obtain data about cannabis use.

Nurses need to be well informed about the medicinal effects of cannabis and should recognise the pharmacological issues and concerns when someone is prescribed other medication when they are a regular cannabis user. There will be situations when a service user is prescribed a large number of different medicines for physical and/or mental health problems and the nurse must be well informed of the complex pharmacological picture the service user presents. Cannabis use and any other illicit drugs must be assessed monitored and discussed with the service user and carer. The role of the independent nurse prescriber in chronic illness, oncology and palliative care requires that this understanding and knowledge of the pharmaceutical effects of cannabis is even more important. It is also important to document the details of cannabis use accurately and with the service user's permission, seek advice from pharmacists, medical and, if necessary, substance misuse colleagues to ensure the pharmacological picture is understood fully.

## Conclusion

There are many issues and concerns for the health care professional and nurse when caring and treating someone who has chosen to use cannabis for symptom management. Nurses, in particular, have a professional responsibility to respect and support service users in their decision to use cannabis for medicinal purposes. It is also important for nurses to ensure that when cannabis is taken in conjunction with care and prescribed treatment the service user is informed by up-to-date legal, pharmacological, physiological and psychological evidence.

## Relevance to clinical practice

Questions and dilemmas are raised concerning the role of the nurse when caring and supporting a person making therapeutic use of cannabis.

## Contributions

Study design: AG, KD; data collection and analysis: AG, KD and manuscript preparation: AG, KD.

## Conflict of interest

There is no conflict of interest.

## References

- Adams IB & Martin BR (1996) Cannabis: pharmacology and toxicology in animals and humans. *Addiction* **91**, 1585–1614.
- Amtmann D, Weydt P, Johnson KL, Jensen MP & Carter GT (2004) Survey of cannabis use in patients with amyotrophic lateral sclerosis. *American Journal of Hospice and Palliative Medicine* **21**, 95–104.
- Ashton CH (1999) Adverse effects of cannabis and cannabinoids. *British Journal of Anaesthesia* **83**, 637–649.
- Ashton H (2002) Cannabis or health? *Current Opinions in Psychiatry* **15**, 247–253.
- Bach L & Morland H (2001) Acute cardiovascular fatalities following cannabis use. *Forensic Science International* **124**, 200–203.
- Bagshaw SM, Hagen NA & Baker T (2002) Medical efficacy of cannabinoids and marijuana: a comprehensive review of the literature. *Journal of Palliative Care* **18**, 111–122.
- BBC (2001) <http://news.bbc.co.uk/1/hi/health/1423981.stm> (accessed 21 November 2008).
- Berlach DM, Shir Y & Ware MA (2006) Experience with synthetic cannabinoid Nabilone in chronic noncancer pain. *Pain Medicine* **7**, 25–29.
- Berry EM & Mechoulam R (2002) Tetrahydrocannabinol and endocannabinoids in feeding and appetite. *Pharmacological Therapy* **95**, 185–190.



- British Medical Association (1997) *Therapeutic Uses of Cannabis*. Academic Publishers, London.
- Campbell FA, Tramer MR, Carroll D, Reynolds DJ, Moore RA & McQuay HJ (2001) Are cannabinoids an effective and safe treatment option in the management of pain? A qualitative systematic review. *British Medical Journal* **323**, 13–16.
- Carter GT & Rosen BS (2001) Marijuana in the management of amyotrophic lateral sclerosis. *American Journal of Hospice and Palliative Care* **18**, 264–270.
- Carter GT & Ugalde V (2004) Medical marijuana: emerging applications for the management of neurological disorders. *Physical Medicine and Rehabilitation Clinics of North America* **15**, 943–954.
- Chatterjee A, Almahrezi A, Ware M & Fitzcharles M (2002) A dramatic response to inhaled cannabis in a woman with central thalamic pain and dystonia. *Journal of Pain and Symptom Management* **24**, 4–6.
- Clark AJ, Ware MA, Yazer E, Murray TJ & Lynch ME (2004) Patterns of cannabis use among patients with multiple sclerosis. *Neurology* **62**, 2098–2100.
- Consroe P, Musty R, Rein J, Tillery W & Pertwee R (1997) The perceived effects of smoked cannabis on patients with multiple sclerosis. *European Neurology* **38**, 44–48.
- Corner J, Plant H, A'Hern R & Bailey C (1996) Non-pharmacological intervention for breathlessness in patients with lung cancer. *Palliative Medicine* **10**, 299–305.
- Cotter J (2009) Efficacy of crude marijuana and synthetic delta-9-tetrahydrocannabinol as treatment for chemotherapy-induced nausea and vomiting: a systematic literature review. *Oncology Nursing Forum* **36**, 342–352.
- Department of Health (1971) *Misuse of Drugs Act*. HMSO, London.
- Department of Health (2008) *End of Life Care Strategy; Promoting High Quality Care for All Adults at the End of Life*. Department of Health, London.
- DrugScope (2009) <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/cannabis.htm> (accessed 28 July 2009).
- Dutch Ministry of Health (2003) *Information for Medical Doctors and Pharmacists*. Dutch Institute for Responsible Use of Medicine: Medicinal Cannabis, Office of Medicinal Cannabis, The Hague.
- Fox P, Bain PG, Glickman S, Carroll C & Zajicek J (2004) The effects of cannabis on tremor in patients with multiple sclerosis. *Neurology* **62**, 1105–1109.
- Frank B, Serpell MG, Hughes J, Mathews JNS & Kapur D (2008) Comparison of analgesic effects and patient tolerability of nabilone and dihydrocodeine for chronic neuropathic pain: randomised, crossover, double blind study. *BMJ* <http://www.bmj.com>.
- Glare P, Aggarwal G & Clark K (2004) Ongoing controversies in the pharmacological management of cancer pain. *Internal Medicine Journal* **34**, 45–49.
- Gorter RW, Butorac M, Cobian EP & van der Sluis W (2005) Medical use of cannabis in the Netherlands. *Neurology* **64**, 917–919.
- Grotenhermen F (2003) Pharmacokinetics and pharmacodynamics of cannabinoids. *Clinical Pharmacokinetics* **42**, 327–360.
- Guzmán M (2003) Cannabinoids: potential anticancer agents. *Nature Reviews* **3**, 745–755.
- GW Pharma (2006) *GW Files Sativex® for Approval in Selected European Countries for MS Spasticity*. Available at: <http://www.gwpharm.com/sativex-ms-approval-europe.aspx> (accessed 28 July 2009).
- Hall W & Solowij N (1998) Adverse effects of cannabis. *Lancet* **352**, 1611–1616.
- Hays H (2001) Marijuana for the management of proximal myotonic myopathy. *Journal of Pain and Symptom Management* **21**, 267–269.
- Hirst RA, Lambert DG & Notcutt WG (1998) Pharmacology and potential therapeutic use of cannabis. *British Journal Anaesthesia* **81**, 77–84.
- Howard J, Kofi A, Holdcroft A, Korn S & Davies SC (2005) Cannabis use in sickle cell disease: a questionnaire study. *British Journal of Haematology* **131**, 123–128.
- Illhardt F & ten Have H (2002) Research ethics in palliative care. In *The Ethics of Palliative Care* (ten Have H & Clark D eds). Open University Press, Buckingham, pp. 198–211.
- John G (2000) *The Independent* [] 2000 Monday 3rd April, 2000. <http://www.independent.co.uk/life-style/health-and-families/health-news/straw-supports-the-case-for-medical-use-of-cannabis-719057.html> (accessed 22 August 2009).
- de Jong FA, Engels FK, Mathijssen RHJ, van Zuylen L & Verweij J (2005) Medical cannabis in oncology practice: still a bridge too far? *Journal of Clinical Oncology* **23**, 2886–2891.
- Kapur D (2003) Shall we be using cannabis for pain control? *Progress in Palliative Care* **11**, 248–250 Editorial.
- Krenn H, Daha LK & Oczenski W (2003) A case of cannabinoid rotation in a young woman with chronic cystitis. *Journal of Pain and Symptom Management* **25**, 3.
- Kumar RN, Chambers WA & Pertwee RG (2001) Pharmacological actions and therapeutic uses of cannabis and cannabinoids. *Anaesthesia* **56**, 1059–1068.
- Lynch ME & Clark AJ (2003) Cannabis reduces opioid dose in treatment of chronic non-cancer pain. *Journal of Pain and Symptom Management* **25**, 496–498.
- Machado Rocha FC, Stéfano SC, De Cássia HR, Rosa Oliveira LMQ & Da Silveira DX (2008) Therapeutic use of *Cannabis sativa* on chemotherapy-induced nausea and vomiting among cancer patients: systematic review and meta-analysis. *European Journal of Cancer Care* **17**, 431–443.
- Mather L (2000) Delivery systems for medicinal cannabis. Appendix D in the Report of the Working Party on the Use of Cannabis for Medicinal Purposes. Volume II: Main Report. NSW Government, Sydney. [http://www.druginfo.nsw.gov.au/druginfo/reports/medical\\_cannabis.html](http://www.druginfo.nsw.gov.au/druginfo/reports/medical_cannabis.html).
- Mathre ML & Krawitz M (2002) Cannabis series – the whole story. Part 4: the medicinal use of Cannabis pre-prohibition. *The Drug and Alcohol Professional* **2**, 3–7.
- McCarberg BH (2007) Cannabinoids: their role in pain and palliation. *Journal of Pain & Palliative Care Pharmacotherapy* **21**, 3–19.
- Musty R & Rossi R (2000) Effects of smoked cannabis and oral Tetrahydrocannabinol on nausea and emesis after cancer chemotherapy: a review of state clinical trials. *Journal of Cannabis Therapeutics* **1**, 29–42.
- National Institute of Clinical Excellence (NICE) (2004) *Improving Supportive and Palliative Care for Adults with Cancer*. National Institute of Clinical Excellence, London.
- Notcutt W (2004) Cannabis and pain control. *European Journal of Palliative Care* **11**, 6–230.

- Nursing and Midwifery Council (2008) *The Code. Standards of Conduct, Performance and Ethics for Nurses and Midwives*. NMC, London.
- Palliative drugs (2009) <http://www.palliativedrugs.com> (accessed 22 August 2009).
- Patient UK (2009) <http://www.patient.co.uk/showdoc/40025213/> (accessed 22 August 2009).
- Science and Technology Select Committee (House of Lords) (1998) *Cannabis: the scientific and medical evidence*. House of Commons Library Research Paper, London.
- Science and Technology Select Committee (House of Lords) (2000) *2nd Report on the Therapeutic Uses of Cannabis*. House of Commons Library Research Paper, London.
- Shapiro H (2009) *Telephone Conversation*. 24th November 2009. Director of Communications and information, DrugScope, London.
- Smith D (2009) The Telegraph <http://www.telegraph.co.uk/comment/personal-view/5942142/Abandon-the-war-on-drugs-but-start-a-war-on-addiction.html> (accessed 22 August 2009).
- Tramer MR, Carroll D & Campbell FA (2001) Cannabinoids for control of chemotherapy induced nausea and vomiting: quantitative systematic review. *British Medical Journal* **323**, 16–21.
- Wade DT, Robson P, House H, Makela P & Aram J (2003) A preliminary controlled study to determine whether wholeplant cannabis extracts can improve intractable neurogenic symptoms. *Clinical Rehabilitation* **17**, 18–26.
- Walton RP (1938) Cannabis indica in pharmaceuticals. *Journal of the Medical Society of New Jersey* **34**, Cited: Mathre ML and Krawitz M 2002 Cannabis series – the whole story. Part 4: the medicinal use of Cannabis pre-prohibition. *The Drug and Alcohol Professional* **2**, 3–7.
- Watson M, Lucas C, Hoy A & Back I (2005) *Oxford Handbook of Palliative Care*. Oxford University Press, Oxford.
- Wilbourn M & Prosser S (2003) *The Pathology and Pharmacology of Mental Illness*. Nelson Thornes, Cheltenham.
- Woolridge E, Barton S, Samuel J, Osorio J, Dougherty A & Holdcroft A (2005) Cannabis use in HIV for pain and other medical symptoms. *Journal of Pain and Symptom Management* **29**, 358–367.
- Zajicek J, Fox P, Sanders H, Wright D, Vickery J, Nunn A & Thompson A (2003) Cannabinoids for treatment of spasticity and other symptoms related to multiple sclerosis (CAM study): multi-centre randomised placebo-controlled trial. *Lancet* **362**, 1517–1525.