Medical Use of Marijuana in Palliative Care

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Marijuana has been documented to provide relief to patients in palliative care. However, healthcare providers should use caution when discussing medical marijuana use with patients. This article features a case study that reveals the complexity of medical marijuana use. For oncology nurses to offer high-quality care, examining the pros and cons of medical marijuana use in the palliative care setting is important.

Marijuana History and Use

Cannabis, or marijuana, is an herb used by humans for centuries and is the most commonly used drug in the world (United Nations Office on Drugs and Crime [UNODC], 2011). Early prescribers for cannabis recommended eating the seeds for nutritional value and smoking the plant to relieve pain, vomiting, convulsions, and spasticity (Bostwick, 2012).

Studies have shown that delta-9 tetrahydrocannabinol (THC) is the principle psychoactive, or hallucinogenic, component in cannabis (UNODC, 2011). Smoking marijuana allows for maximum rapid absorption into the lungs, whereas oral ingestion provides erratic absorption (Green & de Vries, 2010). Once THC binds to cannabinoid receptors in the brain, side effects may include appetite stimulation, decreased anxiety, relief of nausea and vomiting, diminished spasticity, relief from pain (neurogenic in nature), and decreased intraocular pressure (Joffe & Yancy, 2004).

Cancer is a qualifying indication for medical marijuana use in states that have legalized it (Bowles, O’Bryant, Camidge, & Jimeno, 2012) (see Table 1). For oncology palliative care use, marijuana may control pain, increase appetite, and decrease nausea and vomiting. However, antiemetic guidelines do not support THC, synthetic or inhaled, as first-line therapy (Bowles et al., 2012).

Marijuana and the Legal System

Prior to 1937, marijuana in the United States was frequently prescribed for an array of ailments. However, when cannabis was outlawed in 1937, marijuana began to be portrayed negatively (Millhorn et al., 2009). Since then, society has not fully accepted marijuana for medicinal use.

The Drug Enforcement Agency (DEA) continues to maintain a conservative stance on cannabis use, calling for it to be classified as a schedule I drug. Rescheduling it to a schedule II drug would reflect the “known medicinal value of marijuana while acknowledging the importance of proper medical supervision and accepting that more research is necessary into the side effects and possible dangers of medical marijuana use” (Rendall, 2012, p. 338).

Federal policy states marijuana possession is a criminal offense (DEA, 2011). The American Medical Association notes it would support marijuana rescheduling if doing so would facilitate research and development of cannabinoid-based medicine (Hoffman & Weber, 2010). Physicians and APNs may recommend marijuana use, but if officially prescribed or dispensed, practitioners may be federally charged with aiding and abetting (Hoffman & Weber, 2010). Rescheduling marijuana would enable oncology APNs to prescribe the drug, allowing for regulation and appropriate dispensing techniques.

Legal use of marijuana is a state-level decision. Because federal law prohibits possession of marijuana, patients who possess marijuana are still subject to federal criminal charges (Hoffmann & Weber, 2010). In the United States, 18 states and the District of Columbia have legalized marijuana so far (National Conference of State Legislatures, 2013). In those states, patients are allowed to use and possess small quantities of marijuana for medical purposes (Hoffman & Weber, 2010). State laws, however, do not regulate marijuana’s quality or potency, and most do not address how to obtain the drug (Hoffman & Weber, 2010).
Millhorn et al. (2009) reported that public opinion regarding marijuana legalization was influenced by the current debate of how to use it medicinally. States with legalized marijuana use for medical purposes have a significantly higher rate of marijuana use, abuse, and dependence. Marijuana dependence has been doubted in the past; however, marijuana has a documented withdrawal syndrome that produces side effects similar to other drug withdrawal syndromes (Budney, Roffman, Stephens, & Walker, 2007). The National Institute on Drug Abuse (2011) also cites that long-term marijuana use leads to an addiction that interferes with family, school, work, and recreational activities. Often, symptoms of withdrawal include irritability, anger, depression, difficulty sleeping, craving, and decreased appetite (Budney et al., 2007). Many marijuana users cite these physiologic symptoms as the reason to continue using the drug (Budney et al., 2007). The symptoms begin 24–48 hours after the last inhalation, peak within 4–6 days, and may last up to 3 weeks (Budney et al., 2007).

Case Study

E.W., a 55-year-old woman residing in urban California, was diagnosed with ovarian cancer. At initial presentation to her primary care provider, she complained of diffuse, non-specific abdominal pain with intermittent constipation. Subsequent computed tomography scans showed a mass adjacent to the right ovary with metastatic mesenteric and hepatic lesions noted, as well as an extremely elevated cancer antigen (CA) 125 at 6,523. Normal range for the common ovarian cancer tumor marker, CA125, is laboratory site specific, but mostly noted to be below 25 units per ml (Alagoz et al., 1994). Therefore, E.W. was referred to a gynecologic oncology clinic for surgical and treatment options. After the initial surgical treatment, which consisted of a total abdominal hysterectomy with bilateral salpingo-oophorectomy, pathology revealed a high-grade ovarian clear cell carcinoma in an advanced state.

E.W. underwent eight cycles of taxane/carboplatin-based adjuvant chemotherapy with relatively no delays and only chemotherapy-induced nausea and vomiting (CINV) as a major side effect. At the end of the initial therapy, E.W. was found to have persistent disease, with referral to an ongoing phase I clinical trial at the suggestion of her oncology APN. Per the clinical trial, E.W. had an experimental treatment once a week. Throughout her diagnosis and treatment, E.W. relied on many alternative therapies, including acupuncture, Reiki, massage, and herbal therapy (turmeric and green tea preparations).

E.W. experienced high levels of anxiety related to her weekly infusions, as well as frequent CINV episodes. She took many combinations of antiemetic medications, including 5-HT3, neurokinin-1 antagonists, corticosteroids, dopamine receptor antagonists, and benzodiazepines. At best, E.W. experienced moderate relief from unrelenting nausea. When E.W. inquired about use of medical marijuana, the APN referred E.W. to her oncologist, explaining that it must be a physician who formally recommends a patient for medical marijuana. Once the recommendation was obtained, E.W. was issued a patient registry card and legally obtained her medical marijuana through a local reputable dispensary known to assist patients in palliative care.

Support for Legalizing Medical Marijuana

Kleber and DuPont (2012) listed indications with maximum benefit achieved by smoking marijuana as CINV, cachexia, spasticity, pain, and relief from rheumatoid arthritis.

A national Gallup® poll revealed that 50% of Americans support cannabis legalization (Newport, 2011). Millhorn et al. (2009) reported an overall increase in positive attitudes toward allowing marijuana legalization in North America. Attempts to restrict cannabis for medical use have been expensive, ineffective, and usually counterproductive; therefore, proponents for decriminalizing cannabis for medical use argue that fiscal resources would be conserved (Wodak, Reinarman, Cohen, & Drummond, 2002).

Opposition to Legalizing Medical Marijuana

No U.S. Food and Drug Administration (FDA)-approved medication is administered by smoking, which is the most effective route of administration (Kleber & DuPont, 2012). Smoking of any substance has been linked to lung cancer, which carries the highest mortality rate of any cancer type in the United States (Weiss, 2008).

Decriminalizing or legalizing marijuana could result in advertisement for its use, some of which may be directed to youth (Joffe & Yancy, 2004). Control measures to prevent youth advertising may be difficult to implement. Legalization could decrease adolescents’ perceptions of the risks of marijuana, causing a negative effect (Joffe & Yancy, 2004).

Another concern regarding legalization is dependence; 9% of users may become dependent (Kleber & DuPont, 2012). In efforts to sidestep potentially harmful effects of smoking marijuana, pharmaceutical companies have attempted to develop drugs that can be taken by other routes that target cannabinoid receptors in the brain. Only two options are currently available in the United States, dronabinol and nabiximole, synthetic THC that target the cannabinoid receptor in the brain (Bostwick, 2012). However, their use is strictly limited by the narrow gap between effective therapeutic dosage and adverse effects such as euphoria, cognitive clouding, and drowsiness (Bostwick, 2012).

### TABLE 1. Legalized Medical Marijuana Use by State

<table>
<thead>
<tr>
<th>State</th>
<th>Year Legalized</th>
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<tbody>
<tr>
<td>Alaska</td>
<td>1998</td>
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<td>Arizona</td>
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<tr>
<td>California</td>
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<td>Colorado</td>
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<td>Connecticut</td>
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<tr>
<td>Delaware</td>
<td>2011</td>
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<td>District of Columbia</td>
<td>2010</td>
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<tr>
<td>Hawaii</td>
<td>2000</td>
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<tr>
<td>Maine</td>
<td>1999</td>
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<tr>
<td>Massachusetts</td>
<td>2012</td>
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<td>Michigan</td>
<td>2008</td>
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<td>Montana</td>
<td>2004</td>
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<td>Nevada</td>
<td>2000</td>
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<td>New Jersey</td>
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<td>New Mexico</td>
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<td>Oregon</td>
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<td>Rhode Island</td>
<td>2006</td>
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<tr>
<td>Vermont</td>
<td>2004</td>
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<tr>
<td>Washington</td>
<td>1998</td>
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Note: Based on information from the National Conference of State Legislatures, 2013.
Implications for Practice

Oncology APNs must be aware of laws regarding marijuana use in regard to malpractice or liability issues (Kleber & DuPont, 2012). Therefore, APNs may clearly explain to patients that medical marijuana is not approved by the FDA, nor is it a standardized product; however, they may refer patients to proper marijuana dispensaries as appropriate after recommendation by an oncologist (Kleber & DuPont, 2012).

When managing patients who use medical marijuana, de Vries and Green (2012) listed five key points the APN must be aware of:

• Be well-informed about current research regarding all pharmaceuticals.
• Educate patients on the physical and psychological effects of medical marijuana, and how to interact with legally prescribed medications.
• Document medical marijuana use as reported by the patient as well as reported effects.
• Educate the patient on state and federal penalties regarding medical marijuana.
• Do not supply, fund, obtain, or in any other way prepare medical marijuana for patient consumption.

Conclusion

Although used safely throughout history, marijuana remains illegal under current federal law. Therapeutic effects of THC are sought by patients with cancer receiving palliative care. For patients with cancer to use marijuana, it must be decriminalized at the state level. Opponents cite smoking risks and potential abuse by teens as primary concerns. As evidenced in the case study presentation, oncology nurses must recognize liability risks as well as potential benefits of medical marijuana use in patients with cancer receiving palliative care.

References


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