Research: Medical Cannabis

Background

• The hemp plant *Cannabis sativa* (cannabis) is commonly known as marijuana and can be used as a therapy to alleviate symptoms such as pain and fatigue caused by chronic disease. Cannabis has a history of medicinal use dating back thousands of years across many cultures.

• Medical cannabis refers to the use of plant material (either whole or in extract form) that contains various cannabinoid molecules such as tetrahydrocannabinol (THC) and cannabidiol (CBD). THC has psychoactive (mind altering), and pain relieving properties. CBD may also reduce pain and inflammation while having no known psychoactive side-effects.

• The family of cannabinoid molecules that may be used as treatments exist as either pharmaceutical preparations or herbal products derived from plant material:
  - The pharmaceutical preparations may be ingested as an oral preparation (pills) or as a spray applied to the inside of the mouth. The pharmaceutical preparations are based on the molecules THC and CBD. Pharmaceutical cannabinoids have undergone clinical trials to demonstrate safety and effectiveness, and have been approved for various conditions through the rigorous process associated with Canada’s Food and Drugs Act.
  - Herbal cannabis in contrast is not pharmaceutically manufactured and is comprised of the dried leaves and flowers of the plant *Cannabis sativa*. Herbal cannabis, may be ingested, inhaled or applied locally. Research and clinical trials are very limited in the area of herbal cannabis and, as a result, both positive and negative effects have not been clearly determined.

• According to the Canadian Consortium for the Investigation of Cannabinoids (ccic.net), there are currently no clinical studies taking place in Canada related to the effects of medical cannabis on arthritis.

Environment
In 2000, Canadian courts ruled that the Canadian Controlled Drugs and Substances Act was unconstitutional and in violation of the Canadian Charter of Rights and Freedoms because it forced an Ontario man "to choose between his health and imprisonment." In effect, the ruling forced the federal government to create a law and put regulations in place that allowed people to use herbal cannabis for legitimate medical needs.

Since 2001, Health Canada has granted access to herbal cannabis to Canadians who have the support of a health care professional. From 2001 to 2014, once approved under the Marihuana Medical Access Regulations (MMAR), individuals had three options for obtaining a legal supply of the product: 1) they could apply under the MMAR to access Health Canada’s supply of dried cannabis; 2) they could apply for a personal-use production licence; or 3) they could designate someone to cultivate on their behalf with a designated-person production licence.

In response to concerns from stakeholders that this system was open to abuse, and after extensive consultations, the Government of Canada introduced the new Marihuana for Medical Purposes Regulations that were published in the Canada Gazette, Part II on June 19, 2013. The new regulations aim to treat herbal cannabis, as much as possible, like any other medication by creating conditions for a new, commercial industry that is responsible for cannabis production and distribution.

As of April 1, 2014, the Marihuana Medical Access Regulations were repealed and the only way to access medical cannabis is through the process outlined in the new Marihuana for Medical Purposes Regulations (MMPR).

Patients are now required to have their health care professional (physician or nurse practitioner), complete a medical document outlining the daily use requirements and period of use. Patients then submit this document and a registration form to a licensed producer of their choice. Licensed producers have to demonstrate compliance with rigorous regulatory requirements, such as quality control standards, record-keeping and intensive security measures to protect against theft.

Although the use of herbal cannabis has been regulated since 2001, it is important to note that the Health Canada website states “Dried marijuana is not an approved drug or medicine in Canada. The Government of Canada does not endorse the use of marijuana, but the courts have required reasonable access to a legal source of marijuana when authorized by a physician.”

In response to a June 2013 Access to Information Act request, Health Canada reported that “severe arthritis” was the diagnosis for 65 per cent of Canadians authorized to possess herbal cannabis. These individuals have a clear need for options to help manage their pain, and are asking whether herbal cannabis might offer them some relief.
Issues Associated with Medical Cannabis

Naming
- Pharmaceutical cannabinoids each have a formal International Non-proprietary Name (INN) as issued by the World Health Organization. Three pharmaceutical cannabinoids have been approved for use by Health Canada:
  - Cesamet (nabilone), Meda Pharmaceuticals
  - Marinol (dronabinol), Solvay Pharma (not currently available in Canada)
  - Sativex (nabiximols), GW Pharmaceuticals.
- The naming of various types of herbal cannabis, which may vary in the amounts of THC and CBD, is not uniform or regulated and is entirely decided by the individual licensed producer or grower, creating confusion for patients. Licensed producers of herbal cannabis have the ability to market numerous strains and varieties of the product. Although not legally able to make health claims, licensed producers are able to indicate the THC and CBD percentages in their strains, but without any evidence to support one strain over another.
- Given that the licensed producers are not mandated to have a common naming structure, physicians and patients are faced with confusion.

Delivery Methods
- Pharmaceutical cannabinoids are available in capsule form or as a spray that is applied to the inside of the mouth. The pharmacokinetics, which is the understanding of how the product is absorbed, how long it remains in the bloodstream and how it is eliminated from the body, has been studied for all the pharmaceutical cannabinoid preparations.
- There are multiple delivery methods for herbal cannabis which may alter the effect of the product and present a variety of side effects. Herbal cannabis may be ingested in the form of baked goods or inhaled through the use of a vaporizer or by smoking. Faster onset of action is achieved via inhalation versus ingestion.
- Sophisticated vaporizers are available for purchase, with one of the greatest drawbacks being the cost for the equipment. There is one such device approved by Health Canada for the consumption of herbal cannabis.

Guiding Principles
- Patient safety is paramount and a patient-centred approach is crucial.
• Decisions about the use of medical cannabis must be in the hands of people living with arthritis and their physician.
• People living with arthritis and their physicians need to be armed with the right information to make informed choices about treatment options.
• The Society’s desire to speak out on the topic of medical cannabis is rooted directly in our vision of living well, while creating a future without arthritis. Specifically, The Society is seeking to erase the pain of arthritis in the areas of **cure**, **care** and **community**:
  o By pursuing a **cure**, we fund research that aims to eliminate arthritis outright and give new generations a pain-free future.
  o By prioritizing **care**, we educate and assist frontline health care professionals to help relieve the pain that 4.6 million Canadians with arthritis experience in their daily lives.
  o And by focusing on **community**, we better meet the needs of people living with arthritis by connecting them to one another and enabling their efforts to manage their own pain with greater success.
• In 2013-14 The Arthritis Society embarked on a campaign to hear from the over 4.6 million Canadians who live with arthritis. Through this dialogue, The Arthritis Society learned that **pain** is the overriding complaint and individuals are looking for better relief of their symptoms caused by arthritis. (To learn more about The Society’s “Erase the Pain” campaign, please visit [www.ThePain.ca](http://www.ThePain.ca))

**The Arthritis Society Position on Medical Cannabis**

• **The Arthritis Society is committed to funding medical cannabis research in the coming funding year to understand its impact on arthritis pain and disease management.** The Arthritis Society believes that more research into medical cannabis and its impact on managing arthritis is required so that:
  • Canadians living with arthritis can make informed choices about their treatment options, and
  • Physicians are equipped with evidence-based information to make informed treatment recommendations for their patients.

• **Safety and improved care for people living with arthritis are the Society’s top priorities. Given the current lack of information on medical cannabis, The Arthritis Society is compelled to act.**
  The Arthritis Society seeks to improve the body of information available upon which to base responsible, evidence-guided decisions. For example, some of the questions that need to be answered on medical cannabis include:
  o Is medical cannabis effective for managing pain and fatigue caused by arthritis?
  o If effective, what is the best delivery method?
What factors affect dosage, delivery mode and efficacy? Do they vary depending on the patient, disease type, or amount of pain being experienced?

What is the effect of medical cannabis on inflammation?

Does medical cannabis have any adverse interactions with other medications or conditions?

Is it possible to separate the cannabinoid molecules that contribute to pain relief from those that have undesirable side effects?

The arthritis community is going to be affected by the answers to these questions. People taking the therapy may be exposing themselves to possible harm; alternatively, people not allowed to access the drug may be denied a possibly beneficial therapy.

- **The Society will work to convene a national consensus conference of relevant stakeholders** with the goal of developing a shared position on action steps to advance research into medical cannabis.

- **We firmly believe that it is the responsibility of all stakeholders in the arthritis community** – government, licensed producers, health charities and other organizations – **to fund research into the safety and efficacy of medical cannabis.**

**The Arthritis Society’s Role**

- The Arthritis Society will advance its mission by educating individuals living with arthritis on the complex and unique characteristics of medical cannabis. People living with arthritis must be given timely, relevant and accurate information to make informed treatment decisions.

- The Arthritis Society is committed to ensuring that government decision makers have a clear understanding of the impact of medical cannabis on patients and that public policy is shaped to support individuals living with arthritis.

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