CANADIAN SOCIETY OF RESPIRATORY THERAPISTS
SOCIÉTÉ CANADIENNE DES THÉRAPEUTES RESPIRATOIRES

RTSO
Respiratory Therapy Society of Ontario
Société de la Thérapie Respiratoire de l'Ontario

CSRT and RTSO Position Statement on Respiratory Health and Cannabis

Position

The use and availability of cannabis in Canada changes with the enactment of Bill-C45 that provides legal access to cannabis and regulates its production, distribution and sale.

Respiratory therapists have been advocates of lung health since the inception of the profession. As professional societies representing respiratory therapists in Canada, it is the position of the Canadian Society of Respiratory Therapists (CSRT) and the Respiratory Therapy Society of Ontario (RTSO) that the following recommendations be followed to protect the health of the populations served by our members.

Consistent with our organizations' mandates to advocate for respiratory therapists and the communities we serve, these recommendations focus on reducing the potential health risks associated with cannabis use, and on developing policy to protect the health of the public.

Usage and Practice Recommendations

- If cannabis is to be used, it should not be smoked.
- If cannabis is to be used, harm reduction methods should be employed.
- Adolescents and young adults under the age of 25 years old should not use cannabis in any form.
- Respiratory therapists should have access to the evidence informing cannabis use for medicinal purposes and of the harmful health effects of cannabis so that they are able to appropriately educate the populations they serve.
- Respiratory therapists should screen patients for cannabis use, as is recommended for tobacco use, and be aware of cessation resources so that they can support members of the public as required.

Rationale for Usage and Practice Recommendations

Most people who use cannabis in Canada opt to use the substance in its inhaled form (1). This includes smoking cannabis (where the dried cannabis is combusted and inhaled), vapourization (where the

cannabis is heated to a temperature less than the combustion point) and the use of water pipes, bongs or other devices. Of the various inhaled routes, smoking is the most common (1).

The inhalation of any foreign substance can have harmful cardiopulmonary effects. Evidence has shown that mild bronchodilation may occur with smoking a single joint (2). This information may be touted as a benefit to inhaled cannabis for obstructive diseases such as asthma. This bronchodilatory effect is often mild, and is not sustained with regular cannabis use (3). There is substantial evidence that long-term cannabis smoking is associated with increased symptoms of chronic bronchitis, such as cough, mucus production, wheeze, a decline in lung function and shortness of breath (2; 4). Sustained cannabis cessation has been noted to reduce these symptoms. (4; 5).

Smoking cannabis has been noted to reduce the function of pulmonary immune cells, which impairs pulmonary immunity, predisposing people who smoke cannabis to pulmonary infections (6).

In vitro and animal evidence indicate that some cannabinoids may inhibit the growth of lung cancer cells when injected directly into them, but these studies do not investigate the effects of smoked cannabis (7). Pathologic changes to cells in the airways have been noted in persons who smoke cannabis (8; 9) and it has been noted that cannabis smoke contains toxins and known carcinogens, including many of the same that exist in tobacco smoke (7; 10). Although there may not be sufficient evidence to confirm a causal relationship between cannabis smoking and the development of lung cancer, the primary finding of one longitudinal study concluded that cannabis smoking may increase such risk (11).

Several evidence-based harm reduction methods of cannabis use have been described (12). These include total abstinence; abstinence through to young adulthood; usage of products with lower concentrations of tetrahydrocannabinol (THC), the main psychoactive compound in cannabis; avoidance of synthetic cannabis products; use of alternate intake routes, such as vapourization or ingestion of edible products; avoidance of regular use; and refraining from driving or operating other machinery or mobility device for at least six hours after cannabis use (12).

It is important to note that alternative routes to smoking cannabis are not without risk. The inhalation of cannabis vapour (“vaping”) may present a less harmful intake route than smoking (because combustion of cannabis does not occur, thus reducing the exposure to some toxins and carcinogens). Studies have noted a reduction in respiratory impacts when cannabis smokers switched to vapourized usage (13) however, vapourization does not reduce the health risks to other body systems (14). As there have been no studies that investigate the long-term effects of vapourizer use (12), further research is required to determine if vapourization presents a safer alternative to smoking cannabis.

The ingestion of products containing cannabis is also not without risk. Ingestion delays the onset of the psychoactive effects of TCH, which may lead users to ingest larger doses than intended in an effort to elicit the desired response (12; 15). This may be associated with increased adverse effects (12).

The use of cannabis in adolescence has been associated with higher level of dependence in adulthood when compared to initial use in adulthood (16) and can impact brain development in children and adults under the age of 25 (17). Furthermore, the majority of adolescents who use cannabis also use tobacco, and this dual usage is associated with an elevated risk of adverse health outcomes (19).

Policy Recommendations

- Legalization of cannabis use in Canada must be accompanied by extensive evidence-based public education regarding the benefits and risks of cannabis use. Funding must be in place to sustain ongoing education.
- Many knowledge gaps exist where the safety, efficacy, and dosing of cannabis are concerned. Legalization of cannabis in Canada must be accompanied by high quality, independent research to close these knowledge gaps, and funding must be in place to sustain ongoing research.
- Organizations, including those employing respiratory therapists and other health care professionals, should work with health and safety committees and/or labour unions (where applicable) to develop policy-surrounding usage of cannabis in the period prior to work, or during work periods, to ensure the safety of patients in their care, and in alignment with relevant smoking regulations.

Rationale for Policy Recommendations

Although good quality evidence exists supporting the medicinal use of cannabinoids for the treatment of some medical conditions, the evidence supporting the use for cannabinoids for other medical reasons is of low quality (20). The medical benefits of cannabis may be over-stated by some members of the cannabis industry, or by pro-cannabis individuals. The majority of Canadian adults possess low levels of health literacy (21), which creates a situation where members of the public may not make informed decisions regarding the use of cannabis.

There exist significant knowledge gaps surrounding cannabis use, its efficacy, safety, and dosing. The concentrations of TCH in cannabis have increased significantly in recent decades (16; 22). This calls into question the applicability of some earlier research that studied the various impacts of cannabis at lower TCH concentrations (16). Furthermore, effective and safe dosing levels for cannabis have not been established (23; 24). Significant research is still required in order for medical practitioners and members of the public to make informed decisions regarding the use of cannabis.

It is reasonable to assume that some health care professionals may use cannabis both medicinally and recreationally. The psychoactive effects resulting from cannabis inhalation peak within 30 minutes, with acute effects typically lasting two-to-four hours, and possibly as long as 24 hours (24). The length of time of impairment, however, is not clear and means to quantify impairment do not currently exist (25).

About the CSRT

The CSRT is the national professional association representing respiratory therapists across Canada. The CSRT promotes the respiratory therapy profession at the national and international level, and is the credentialing agency for respiratory therapists who practice in non-regulated jurisdictions in Canada.

About the RTSO

The RTSO is a non-profit organization of professionals devoted to the promotion of Respiratory Therapy in the province of Ontario. The RTSO serves as the voice of the profession, to promote, advance and protect the interests of respiratory therapists in Ontario through research, professional advocacy, growth and development. We do this through strategic partnerships, professional collaboration and leadership.

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