

Executive Summary / Résumé

Medical cannabis encompasses all cannabis-based products which are used for medical treatment. Since 2012, Switzerland allows patients to get access to medical cannabis through a timely limited exceptional license. To date, general reimbursement by the compulsory health insurance for medical cannabis does not exist in Switzerland. Medical cannabis can be used to treat various symptoms and is predominantly used as add-on therapy or after other therapeutic options were unsuccessful. The aim of this scoping report was to investigate the evidence for the efficacy, effectiveness, safety, and cost-effectiveness of the use of medical cannabis for treating the following symptoms: chronic pain, spasticity, unintentional weight loss, and nausea and vomiting related to cancer treatment. The selection of these symptoms was guided by a preliminary literature search.

Systematic literature searches were performed in PubMed (MEDLINE), Embase, and other complementary databases to identify relevant published efficacy, effectiveness, safety, and cost-effectiveness evidence. The applied search filters were time period (1980-22 January 2020) and the language of publications (i.e. English, French, German, and Dutch). Furthermore, only randomised controlled trials (RCTs) and economic evaluations were included. Additional literature was searched for information on social, legal, ethical, and organisational aspects related to medical cannabis.

For the symptom chronic pain, nineteen RCTs were included. The RCTs studied the efficacy of medical cannabis use for chronic pain in patient populations with eleven divergent causes and different underlying mechanisms of chronic pain. In addition, there is much heterogeneity in the definitions and outcome measures of the reported outcomes. Most RCTs on chronic pain were included for the diagnosis multiple sclerosis (MS).

In total, fourteen RCTs were included for medical cannabis use for the symptom spasticity in patients with various diseases. The effect of medical cannabis on spasticity caused by MS is most often studied. The most frequently used outcomes are the Ashworth scale score, modified Ashworth scale score, and the spasticity 0-10 numerical rating scale.

Five RCTs were found on the efficacy of medical cannabis use for the symptom unintentional weight loss. Varying outcome measures were used across studies, which complicates comparison between studies and pooling of the data.

Twenty-two RCTs were included for the symptoms nausea and vomiting related to cancer treatment. The RCTs are however dated; nineteen of the RCTs were published before 1990. The methodological and reporting quality of older RCTs may be more often inadequate than in modern RCTs. Also, the treatment circumstances may have changed over time (including the comparator treatment), which limits the applicability of the study results to the current clinical practice. Again, a large variety of outcomes is used to measure the frequency or severity of nausea or vomiting. The heterogeneity of the outcomes has implications for synthesis of the reported data.

Two economic evaluations were identified for medical cannabis in chronic pain, and six for the symptom spasticity. The economic evaluations did not provide evidence on the cost-effectiveness of medical cannabis in Switzerland. No economic evaluations were identified for unintentional weight loss and nausea and vomiting related to cancer treatment.

Based on the findings in this scoping report, it was concluded that conducting a health technology assessment (HTA) for medical cannabis in Switzerland is feasible. For the symptoms chronic pain and spasticity, health economic models can be built inspired by the models developed by the National Institute for Health and Care Excellence (NICE). The models will be adapted to the Swiss context, using the input from the identified literature and by performing additional searches for Swiss costs and quality of life data. For the symptoms unintentional weight loss and nausea and vomiting related to cancer treatment it was concluded that, due to methodological limitations of the studies found in the systematic review, data of sufficient quality is too scarce to analyse individual study outcomes or to develop a sufficiently robust health economic model. The evidence base for these two symptoms will be described narratively in the HTA.