Medicinal cannabis in the treatment of epilepsy

1. Overview

Epilepsy Australia acknowledges the many challenges and health impacts that those living with uncontrolled seizures and their loved one's face. In accordance with the *Australian Charter of Healthcare Rights (second edition),* we also respect their rights to have information on, access to and the freedom to explore all appropriate treatment options available to them.

Australians living with epilepsy, their families and their carers should have information about the risks, benefits and peer-reviewed evidence of all treatment options. Information about treatment options will enable people to have open discussion with their healthcare provider, to make informed decisions about their care.

We hope that further trials on medicinal cannabis along with other potentially promising treatments for seizures will increase the evidence base for effective treatments for people living with epilepsy.

2. Summary

- Epilepsy Australia recognises the need for more effective and safe therapies to assist patients and their families facing severe, intractable seizures.
- The Therapeutic Goods Administration (TGA) has approved Epidyolex to treat seizures associated with Lennox Gastaut syndrome or Dravet syndrome in patients two years and older based on high-quality clinical trials (TGA 2021a). It has been made available on the Pharmaceutical Benefits Scheme (PBS) from 1 May, 2021, for Dravet syndrome (Medicinewise 2021).
- As yet, there is no high-quality evidence for use in other forms of epilepsy (TGA 2021b).
- Should evidence support that the benefits outweigh adverse events, best practice guidelines can be developed.
- Epilepsy Australia supports the need for further clinical trials to establish this evidence base.
- The unregulated manufacture, supply or possession of cannabis, in any form, is illegal in all states of Australia.
- Pharmaceutical cannabis products available for the treatment of pain and wasting associated with HIV and chemotherapy, and for the treatment of spasticity in multiple sclerosis, are not suitable for treating severe refractory epilepsy or catastrophic epilepsy syndromes.
- Epilepsy Australia urges all people living with epilepsy, their families and carers to consult with an epilepsy specialist and explore the many existing treatment options to make an informed decision. This consultation would consider the possible risks and benefits of the different treatment options, including any participation in clinical trials of medicinal cannabis.

3. Background

In 2016, Australian state and federal governments responded to the calls from patients, families, their carers and clinicians for more effective therapies in severe, intractable epilepsies by introducing legislation to facilitate the introduction of medicinal cannabis as a treatment for epilepsies as well as other conditions.

Medicinal cannabis may now be accessed via certain medical practitioners through the Special Access Scheme (SAS) or Authorised Prescriber Scheme (TGA 2021b). The unregulated manufacture of cannabis products, whether for medicinal or recreational purposes, remains illegal.

The active compounds found in the cannabis plant are referred to as cannabinoids. The cannabinoids that have attracted the most attention to date are cannabidiol (CBD), the major non-psychotropic compound and tetrahydrocannabinol (THC), which give cannabis its psychotropic effect.

Small clinical trials have found that CBD reduces epilepsy seizure activity in some people. There is also anecdotal evidence to suggest that it may reduce seizure activity for some people. CBD use does not produce a 'high' (Alcohol and Drug Foundation 2021).

Evidence for the use of medicinal cannabis for drug-resistant epilepsy in children and young people suggests that while it does not fully control the condition, it may improve the quality of life for people with some forms of epilepsy when used with current treatments (TGA 2021c). Similar high-quality data are not yet available in other forms of epilepsy.

In 2021, Epidyolex (a CBD) was approved to treat seizures associated with Lennox Gastaut syndrome and Dravet syndrome in patients two years and over (Medicinewise 2021). The TGA advises that, "At this time, the use of medicinal cannabis products should only be considered where conventional treatments have been tried and proven unsuccessful in managing the patient's symptoms." (TGA 2021c)

4. The current situation in Australia with medicinal cannabis and epilepsy

Australians have expressed their interest in using medicinal cannabis for various conditions, including epilepsy. In response, the Australian Government and some state/territory governments have legalised the cultivation and manufacture of medicinal cannabis (TGA 2021b).

Much has been put in place by the TGA to provide the basis for prescribing medicinal cannabis and there is a set of guidance documents available to guide patients and doctors (TGA 2021c). Patients will need a prescription from the treating doctor to obtain medicinal cannabis, prescribed under the Special Access Scheme (SAS) (TGA 2021d). If the prescribed medicine is more than 2% THC (the part of cannabis that creates a 'high'), it is considered very restricted and the doctor needs to apply for an additional Schedule 8 permit. This restriction is unlikely to impact on people with epilepsy, as medicinal cannabidiol contains 2% or less THC. It is a Schedule 4 drug and does not require anything more than the SAS permit.

The guidance documents released by the TGA include recommendations for individuals considering medicinal cannabis for epilepsy, multiple sclerosis, chronic pain, palliative care, nausea and vomiting related to chemotherapy or HIV/AIDs. The guidance document for people with epilepsy includes the following recommendations (among others):

- Epilepsy treatment with medicinal cannabis or cannabinoids is only recommended as

an adjunctive treatment, in addition to existing anti-seizure medication. There is insufficient evidence to provide recommendations for adults aged over 25 years.

- Patients and prescribing clinicians should be aware of likely adverse events related to CBD such as diarrhoea, drowsiness and appetite changes. Adverse events such as worsening seizures, convulsions, severe diarrhoea or behavioural difficulties may affect the aims of the epilepsy treatment and increase the likelihood of treatment withdrawal. The clinician should evaluate these events on a case-by-case basis. If treatment is likely to be long-term, it is important that any side-effects from medicinal cannabis are not greater than side-effects experienced using other anti-seizure medications with the patient's response to treatment regularly assessed.

- In the absence of strong evidence for dosing and specific preparations of medicinal cannabis in epilepsy treatment, it is recommended that CBD be used and re-evaluated after twelve weeks of therapy, to ascertain whether there has been any benefit from its introduction. Prescribing clinicians should also be aware of the potential drug interactions with CBD and anti-seizure medications.

5. The future of medicinal cannabis in epilepsy treatment in Australia

As the Australian medicinal cannabis industry develops, more trials will be conducted, which will be of particular importance in the case of children and young people with epilepsy; this will help to ensure the highest standards of care when using medicinal cannabis.

While trial results are encouraging, we need to exercise caution because of the lack of evidence around the efficacy and safety of using medicinal cannabis in children and the potential impact on the developing brain regarding memory, cognition and the potential for psychosis in later years. Marijuana bought illicitly has unknown and untested ingredients. Therefore, its use is strongly discouraged.

The Epilepsy Australia urges all people living with epilepsy, their families and carers to consult with an epilepsy specialist and explore the many existing treatment options. Specialist advice will enable people to make informed decisions that weigh the risks and benefits of the different treatment options, including any participation in clinical trials of medicinal cannabis.

6. The use of medicinal cannabis and driving motor vehicles

This section refers to CBD, THC and non-prescribed cannabis products. While prescribed medicinal cannabis products in epilepsy are limited to children at present, this situation will change and cannabis will likely be prescribed to people of driving age.

Many medicinal cannabis products contain THC. Prescribed THC is an illicit drug for the purposes of the Road Safety Act and any presence of THC in the blood is a driving offence. CBD does not necessarily show up in any standard roadside tests, however, THC does.

When being prescribed a medicinal cannabis product, it is important to use it following the prescribing doctor's directions and seek advice about driving a motor vehicle while using that specific product.

There are discussions among the states/territories to develop a nationally consistent approach to driving and medicinal cannabis. Still, at this point, each state/territory has some variations and drivers will need to inform themselves of these variations. If you have any questions regarding your epilepsy driving fitness, please consult your medical practitioner.

7. Further resources

Medicinal cannabis: Information for consumers https://www.tga.gov.au/medicinal-cannabis-information-consumers

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