

# CLINICIANS: DRUG RESISTANT EPILEPSY

FACT SHEET



# DRUG RESISTANT EPILEPSY

One in three people with epilepsy continue to have seizures despite treatment. This is called medication or drug-resistant epilepsy.

## What is drug resistant epilepsy?



Drug-resistant epilepsy (DRE) is failure to achieve sustained seizure freedom after trying two appropriately prescribed anti-seizure medications (ASM) and used for an amount of time as determined by the specialist (Kwan et al 2010).

Most people who gain seizure control generally do so with the first or second ASM. The probability of achieving seizure freedom diminishes substantially with each subsequent ASM regimen tried (Chen et al 2018).

Despite the availability of many new antiseizure medications, outcomes in newly diagnosed epilepsy have not improved

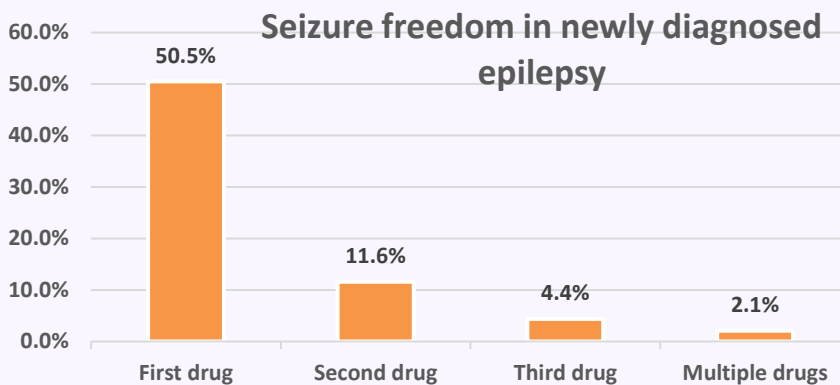


Table 1. Chen, Z., Brodie, M. J., Liew, D., & Kwan, P. (2018). Treatment outcomes in patients with newly diagnosed epilepsy treated with established and new antiepileptic drugs: a 30-year longitudinal cohort study. *JAMA neurology*, 75(3), 279-286.

## Consequences of DRE

DRE can be a heavy burden and very much affect quality of life. For instance:


Well recognised issues	Impaired ability to
Depression and anxiety	Work, keep a full-time job
Increased morbidity and mortality	Drive, travel
Adverse medication effects	Remain independent
Cognitive decline	Remain in education
Seizure related injuries	Develop and maintain social relations
Increased healthcare utilisation	

# WHEN SEIZURES DON'T RESPOND TO MEDICATION

Early identification of DRE is important. It is valuable to refer the person to a comprehensive epilepsy centre or epilepsy specialist, or the [Australian Epilepsy Project](#).

After DRE is ascertained, the treatment algorithm for people with epilepsy (PWE) is generally

1. Resective or palliative [epilepsy surgery](#),
2. Neuromodulation ([Vagus Nerve Stimulation](#), Deep Brain Stimulation), and
3. [Dietary therapies](#) - there are [specific syndromes](#) that the ketogenic diet, or its variants, can be of benefit (D'Andrea Meira et al 2019).



DRE poses many challenges and despite the introduction of many new ASMs over the last 30 years, the number of people with DRE has not reduced.

Poor seizure control has been associated with, increased risk of injury and death, difficulties with education and gaining employment, dependence, social isolation, psychiatric comorbidities and consequently poor quality of life.

## Epilepsy Clinics

It is recommended that Australians with DRE should be referred to a comprehensive epilepsy centre to gain a clearer diagnosis, review of their epilepsy and targeted management as soon as possible to improve their seizure control.

These centres are best equipped to evaluate people who have DRE and offer a better chance at finding the most appropriate treatment.

For more information:

[Drug Resistant Epilepsy](#)  
[Epilepsy Treatment](#)

All states have a comprehensive epilepsy centre apart from Tasmania.

To find the closest comprehensive epilepsy centre in your state [search here](#) or contact us on:

Phone: 1300 37 45 37

Email: [epilepsy@epilepsy.org.au](mailto:epilepsy@epilepsy.org.au)

[Book a telehealth appointment with an epilepsy nurse](#)



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Disclaimer: This information is given to provide general information about epilepsy and is accurate at the time of writing