



Professor Martin Brodie

Eminent Ambassador for Epilepsy, Professor Martin Brodie was the keynote speaker at Epilepsy Queensland's Taking Charge Seminar, held during Epilepsy Awareness month. Martin Brodie is the Professor of Medicine and Clinical Pharmacology from the University of Glasgow Scotland. Below is a summary of his discussion concerning adherence to antiepileptic medication.

Adherence to medication in epilepsy

Professor Martin Brodie's presentation 'Adherence to medication in epilepsy' examined some of the reasons people don't take their medicine and the impact it can have on their epilepsy.

While 70-75% of people with epilepsy will get full seizure freedom on medication, 25-30% remain refractory despite treatment. Is it that we are refractory to treatment or are we not taking the medication properly? Prof Brodie addressed the issues of drug adherence in epilepsy, why we might not take the medication and the risks associated with skipping or missing doses.

Prof Brodie defined drug-resistant epilepsy as the "Failure of adequate trial of two tolerated, appropriately chosen and used antiepileptic drug schedules (whether as monotherapies or in combination) to achieve seizure freedom."¹ (Drug adherence is defined as "taking the exact amount of medication at the precise times of every day for an extended period of time"²).

Various methods of measuring drug adherence including direct questioning, patient calendars, counting pills, electronic bottle tops, and serum drug levels can be used. There is a Morisky Medication Adherence Scale used for some research³ however, Brodie's preferred method is to look the patient straight in the eye at the clinic and asking sweetly "How often do you forget to take your tablets?"

Prof Brodie stated that adherence decreases with the number of antiepileptic drugs and drug doses prescribed each day, and that even a

once daily dosage does not result in perfect adherence⁴.

In a study of 33,658 patients non-adherence was associated with:

- Increased risk of mortality
- More emergency department visits
- More hospital admissions
- More motor vehicle accidents
- Greater likelihood of fractures

This study was from a retrospective open cohort design using Medicaid claims data⁵.

There are also economic consequences of non-adherence, making epilepsy care much more expensive:

- Poorer work performance
- Higher disability payments
- More emergency department visits
- More hospital admissions
- More antiepileptic drugs at higher doses^{6,7}

Interestingly, non-adherence is sometimes overconsumption.

Why don't people with epilepsy take their treatment?⁸

- They don't think they have epilepsy
- They don't want to have epilepsy
- They don't like taking pills in principle
- They don't like the prescribed medication
- They don't understand the need for treatment
- The drug schedule is too complicated
- They are disorganized, unfocused, forgetful
- Etc!

Prof Brodie discussed ways that neurologists and the medical profession can help improve drug adherence. These strategies included:

- Discussing history, diagnosis,

investigations and prognosis in detail with patients and family, providing written material

- Give plenty of time for subsequent discussions and answer all questions slowly, honestly and carefully
- Allow everyone time to come to terms with the diagnosis, results of investigations, treatments and prognosis
- Choose best treatment with specific focus on matching the side effects profile to the patient's lifestyle and clinical history
- Ask specifically about individual side effects such as dizziness, sedation, aggression, depression etc.
- Ask the patient to bring all his/her medication to every clinic appointment.

Above all he said it's important to keep everything flexible and not be judgmental.

Causes of refractory non-adherence include:

- Misinformation on side effects
- Hidden alcohol or drug addiction
- Patient feels better off treatment
- Refusal to accept epilepsy diagnosis
- Inability to prioritise treatment cost

If the patient doesn't take his/her medication, it won't work! So Professor Brodie –

- Involves the family in the management plan
- Provides a dosette box for chronic offenders
- Checks plasma levels when possible.

Prof Brodie said his clinic discusses SUDEP (sudden unexpected death in epilepsy) with all his newly diagnosed patients.

If a person with epilepsy dies suddenly and no obvious cause can be

found after a post mortem examination, it is called SUDEP.

The actual cause of SUDEP is not known. There is some suggestion, however, that some people may be more at risk than others. These may include people who:

- Have uncontrolled seizures
- Have generalized seizures in their sleep
- Are not taking their prescribed antiepileptic medication
- Are having frequent or sudden changes to their antiepileptic medication.

The risk of SUDEP for an adult with epilepsy is low, at one in 3000 persons over a one year period. However, for people with poorly controlled seizures, the risk is one in 100 persons over a year.

There are measures you can take to try to reduce the risk of SUDEP. These include maximizing seizure control, sound drug adherence, and avoiding known seizure triggers, especially sleep deprivation. It is also important to eat well and have adequate rest and exercise.

Epilepsy Australia encourages discussion with your specialist, on the importance of seizure control and your personal risk of SUDEP. For further information on medication and tips for taking it correctly, information on SUDEP call 1300 852 853 or contact your local association.

References

1. Kwan P et al. *Epilepsia* 2010; 51: 1069-1077
2. Faught E. *Epilepsy and Behaviour* 2012; 25:297-302
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4. Cramer et al. *Epilepsy and Behaviour* 2002; 3: 338-42
5. Faught E et al. *Neurology* 2008; 71: 472-8
6. Zachry WM et al *Epilepsy & Behavior* 2009; 16:268-73
7. Ivanova JI et al *Pharmacoeconomics* 2010; 28:678-85.
8. Carpentier N et al *Epilepsia* 2013; 54:e20-23.

Disclaimer:

This presentation reflects the presenter's personal views and practice.

The presentation or discussion may include information relating to products not approved or inconsistent with their approved use in Australia.

Please refer to the approved product information before administering any medication.

Epilepsy Queensland is grateful for the support from UCB in Bringing Professor Brodie to Australia.

Brisbane Medical Professionals update their epilepsy knowledge

Epilepsy Queensland's Changing Face of Epilepsy seminar, held at the Cricketers Club, Woolloongabba on Saturday 29 March, specifically targeted improving the epilepsy knowledge of medical professionals.

Topics included Current diagnosis and management of epilepsy presented by Dr Kate Riney, Medication modulation and the management of side effects by Dr Dan McLaughlin, the Psychosocial side of epilepsy - depression and anxiety by Prof Harry McConnell, and Epilepsy and driving regulations presented by Prof Roy Beran.

The seminar was very well received by all who attended and Epilepsy Queensland thanks the presenters for their time and expertise, and the



Dr Kate Riney with Helen Whitehead, CEO Epilepsy Queensland

support of Dr Brian Benson and SciGen for assistance in the organisation and generously sponsoring the event.



Australian and New Zealand Dravet Syndrome Family Conference

23 August 2014

Professor Ingrid Scheffer and the Epilepsy Foundation invite you to attend the 2014 Dravet Syndrome Family Conference. Program includes presentations by neurological, medical, allied health and community service specialists.



Registrations are now open for the Conference.
Visit the link below to register.
<https://www.registernow.com.au/secure/Register.aspx?ID=12622>

Date	Time
Saturday 23 August 2014	Registration: 9:15am Session: 9:30am – 4:30pm
Sunday 24 August 2014	Family Day

Venue: Florey Institute Kenneth Myer Building, 30 Royal Parade, Parkville, Vic
 Childcare: Royal Children's Hospital Childcare Centre, Parkville, Vic
(Childcare available on application)

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