



The Young Adult with Epilepsy: Looking Forward to the Future

Current and New Treatments for Epilepsy

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Response to Treatment

Two thirds of people with epilepsy are responsive to appropriate treatment

The other one-third have difficult to control epilepsy (risk higher in some sub-types)

- Refractory epilepsy

- Drug-resistant epilepsy

- Pharmacoresistant epilepsy

Reasons are poorly understood



Consequences of Uncontrolled Epilepsy

More side effects of medications used

Social limitations

Educational and vocational consequences

Driving restrictions

Increased risk of psychological problems

Injury and burns

SUDEP

Memory and other cognitive dysfunction



AEDs

Older AEDs

E.g., Phenytoin (Epanutin), Valproate (Epilim)

Newer AEDs

E.g., Lamotrigine (Lamictal), Levetiracetam (Keppra)

Newest AEDS

E.g., Rufinamide (Innovelon), Lacosamide (Vimpat)

AEDs in development

Retigabine

Talampanel



Why We Still Need Newer Drugs

Still huge burden of refractory epilepsy

Still significant side effects for many patients

Every individual is different

Each new drug “chips away” at the burden of refractory epilepsy

Cost effective in the long term



Side-Effects of Drugs

Dose-related

- E.g., blurred vision, poor balance

Unpredictable (“idiosyncratic”)

- E.g., skin rash, retinal damage

Mixed

- E.g., hand shake, change in salt level in blood

Other considerations, e.g., pregnancy health, bone health

Drug interactions

Again much inter-individual variation

Don't be obsessed with your drug level!



Surgery and VNS

Surgery should be considered early in those with difficult to control epilepsy arising from one part of brain, e.g., temporal lobe epilepsy

Vagal nerve stimulation may improve but not cure a significant proportion of those with very hard to control epilepsy

Labour-intensive

Resource issues / waiting lists

- Advocate
- Fund raise
- Get involved!



New And Upcoming Treatments

Interest in dietary treatments, e.g., LGI diet

New “biological” therapies, e.g. cell and gene therapy

Seizure prediction and local electrical stimulation to part of brain

Ongoing new drug development

Complimentary treatments

Caution: Be wary of what you read in the papers

– It is a long way from mouse to man!



Epilepsy Research in Ireland

Ongoing projects at a number of centres

Basic science

Genetics

ICT – epilepsy electronic patient record (EPR)

Brain imaging

Pregnancy Register

Support of this research is appreciated

“Epilepsy Research Ireland”



The Future

More therapies will be become available

Lots of good work being done, but still huge significant access
and resource problems

Need for more.....

National Centre for Complex Epilepsy

Help!!!!