

**Multi-disciplinary Management Program of Paediatric
Refractory Epilepsy in NTWC - A Holistic Longitudinal
Care from Hospital to Community: A Clinical Audit of
Seizure, Cognitive and Psycho-behavioural Outcome**



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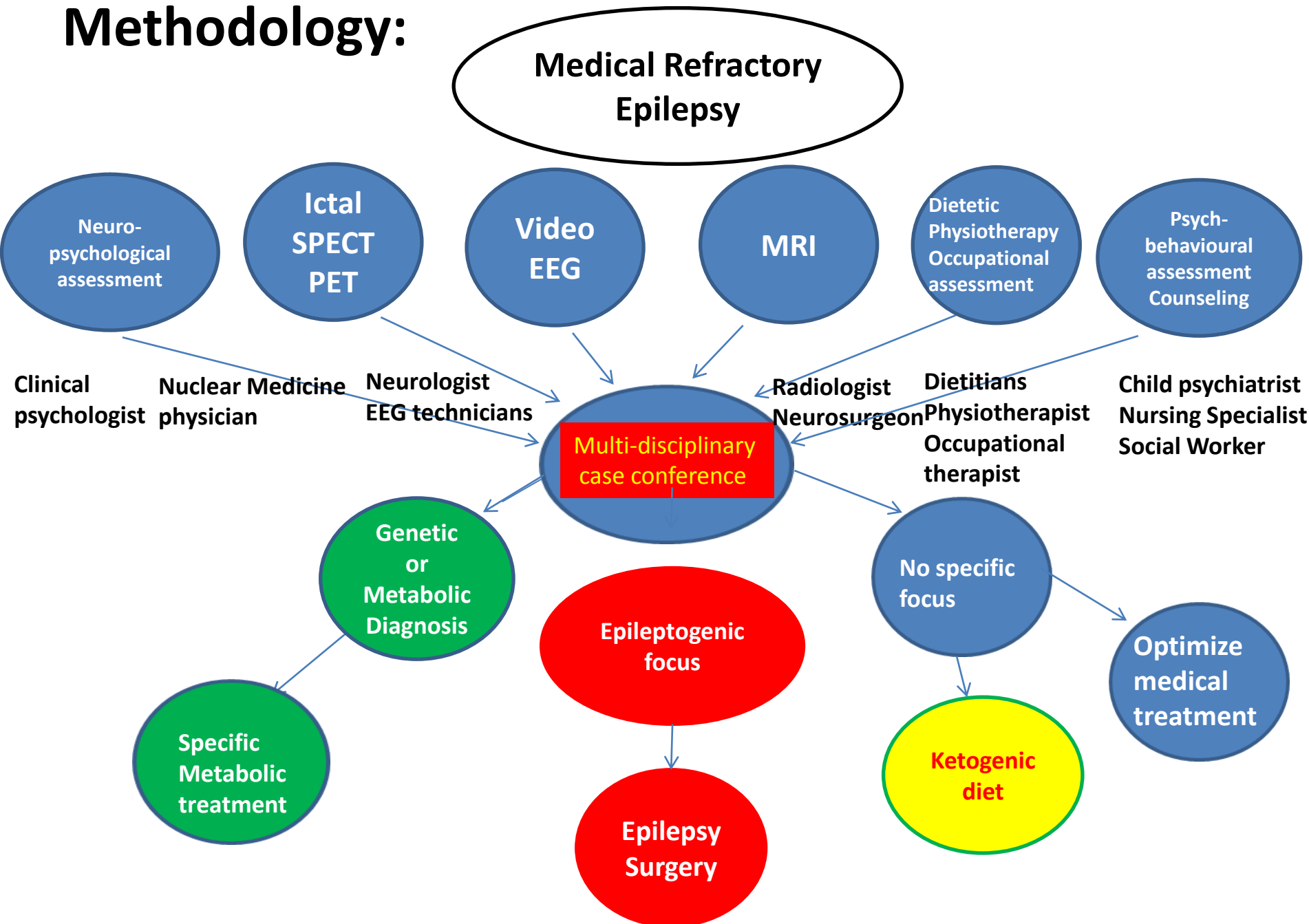


Multi-disciplinary Management of Paediatric Refractory Epilepsy

Introduction:

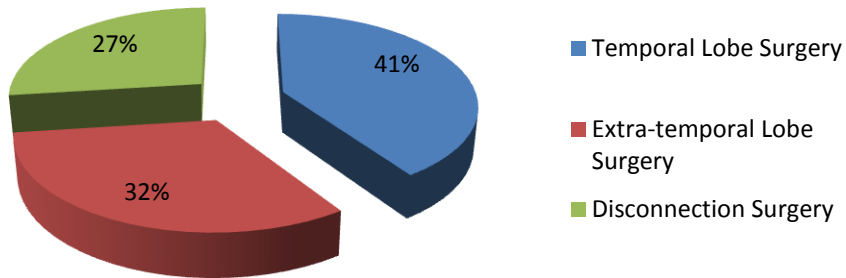
- **Paediatric Epilepsy is a heterogeneous disease with different underlying etiologies; around 13 % of them are medical refractory.**
- **Patients do not only suffer from seizure, but also have developmental, behavioural, psychological and cognitive problems.**
- **Epilepsy surgery and ketogenic diet have shown to be an effective treatment alternatives.**
- **Objectives:**
 - **To audit the seizure outcome of children and adolescence with medical refractory epilepsy after epilepsy surgery and ketogenic diet from 2005 to 2012**
 - **To audit the cognitive and psycho-behavioural outcome after epilepsy surgery**

Methodology:

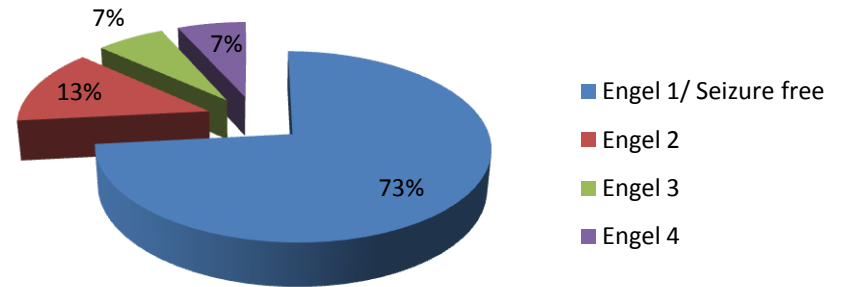


Seizure Outcome of Epilepsy Surgery and Ketogenic Diet from 2005-2012

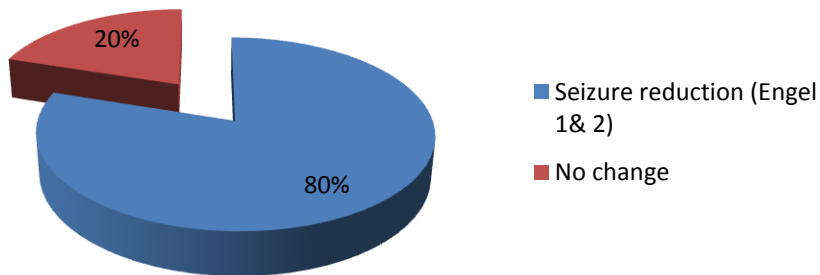
**Types of Epilepsy Surgery
N=37**



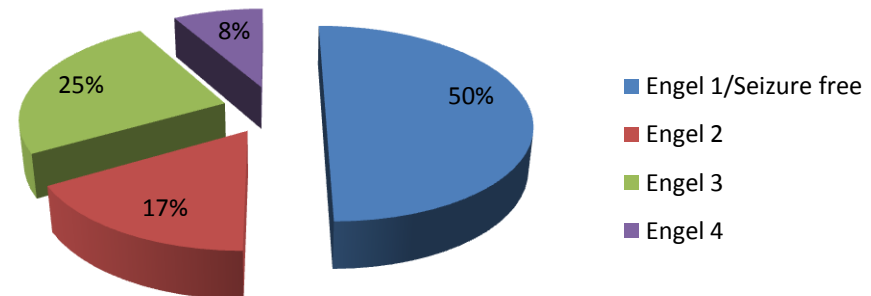
Seizure outcome of Temporal Lobe Surgery N= 15



Percentage of patient with Seizure Reduction on Ketogenic Diet N=10

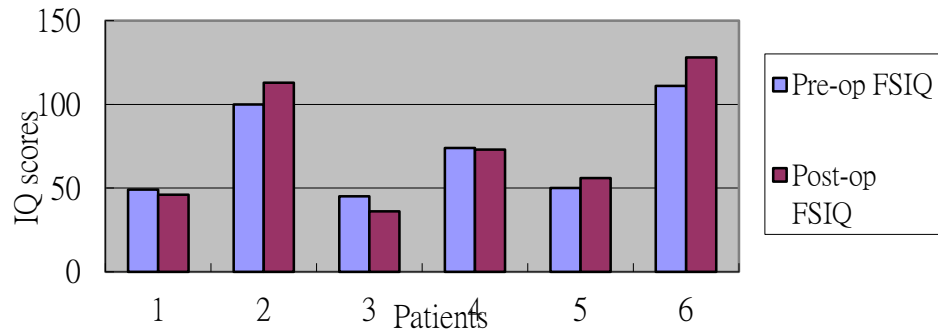


Seizure outcome of Extra-temporal Lobe Surgery N= 12

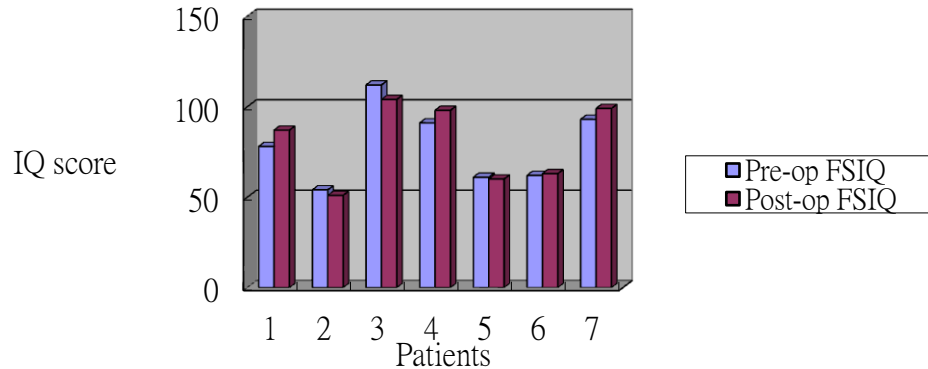


Cognitive and Psycho-behavioral Outcome after Epilepsy Surgery

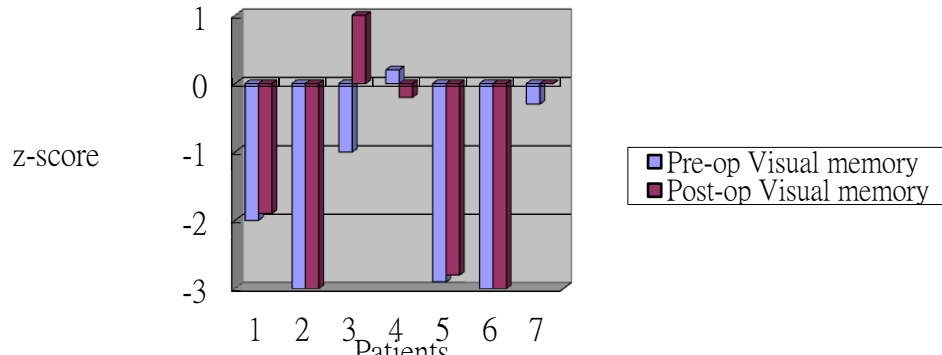
Left Temporal Lobe Surgery - Full Scale IQ



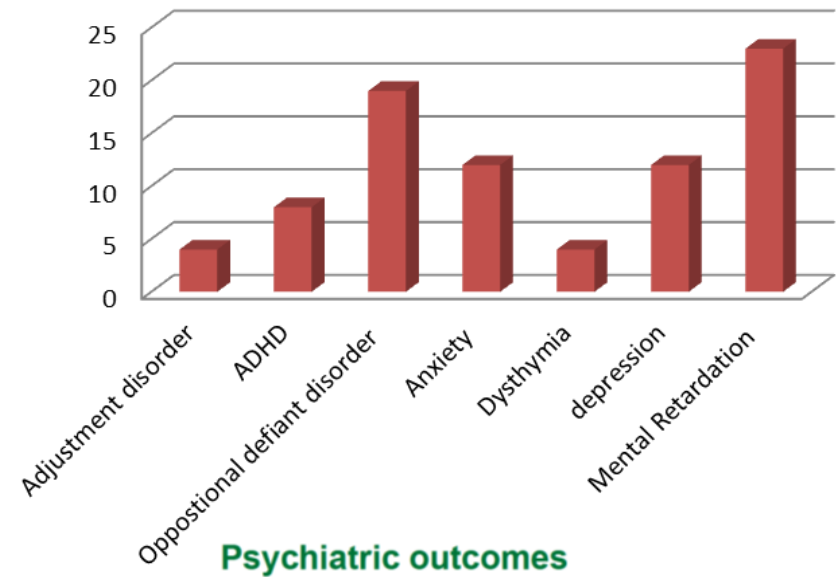
Right Temporal Lobe Surgery - Full Scale IQ



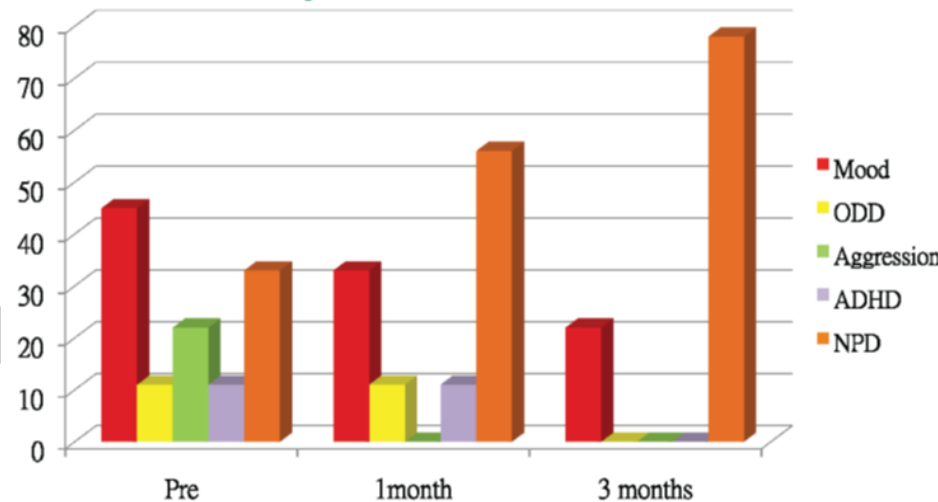
Right Temporal Lobe Surgery - Visual Memory



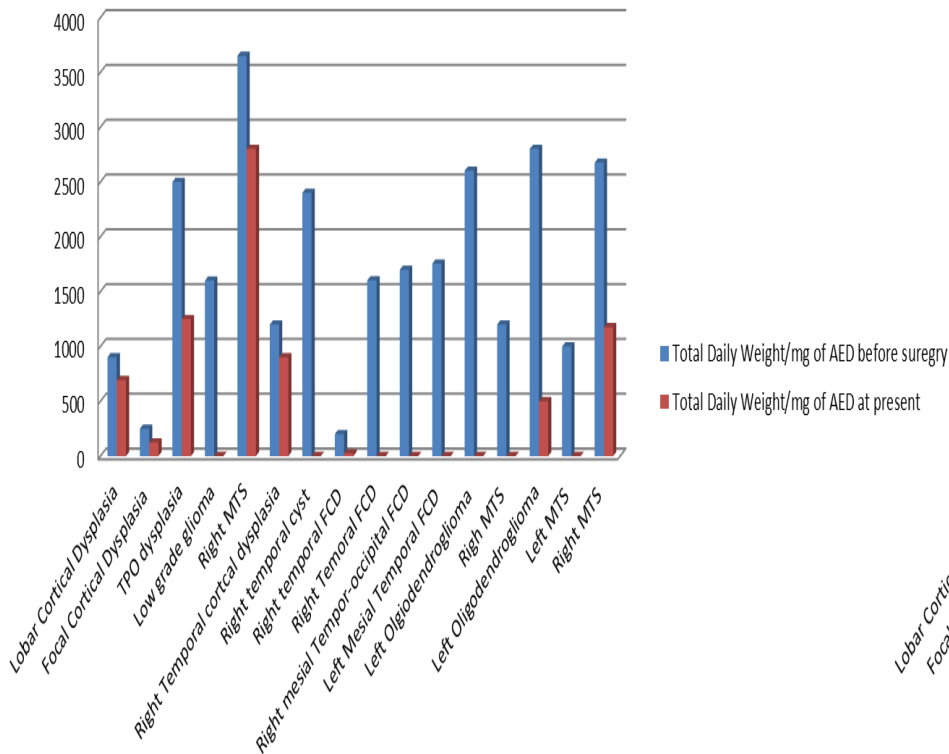
Percentage of Epilepsy patient with Psycho-behavioural Problems



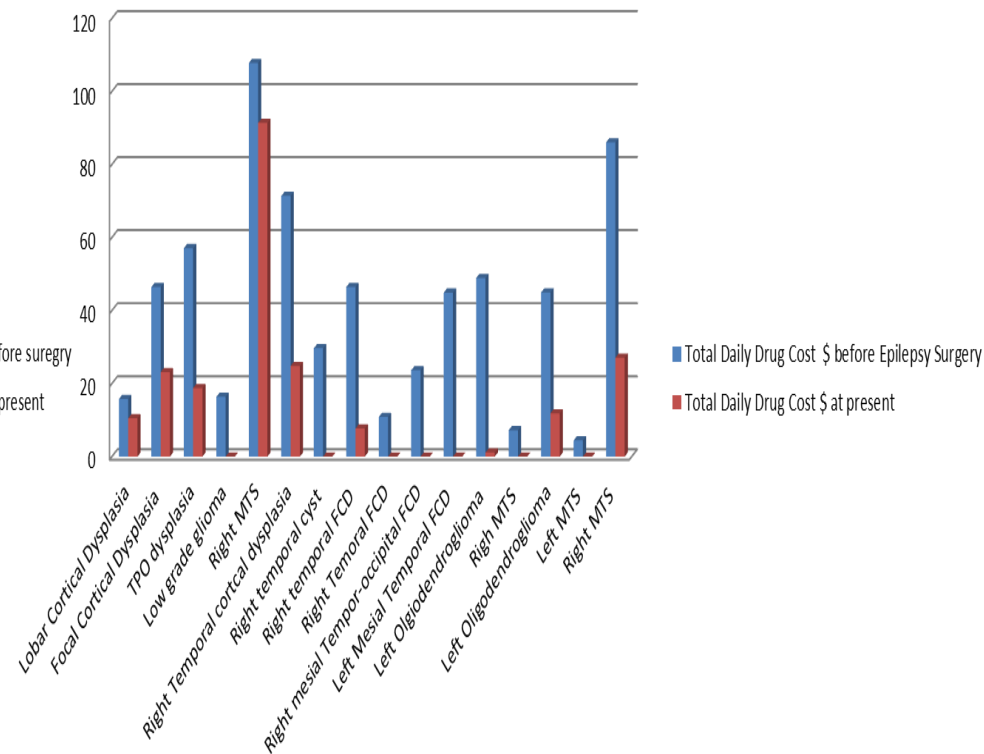
Psychiatric outcomes



Reduction of Total Daily Weight/mg of Anticonvulsants used before & after Epilepsy Surgery



Reduction of Total Daily Drug Cost of Anticonvulsants before and after Epilepsy Surgery



Conclusion:

- Epilepsy surgery and ketogenic diet are an effective treatment options in Paediatric Refractory Epilepsy
- Epilepsy surgery showed favorable cognitive and psycho-behavioural outcome

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