

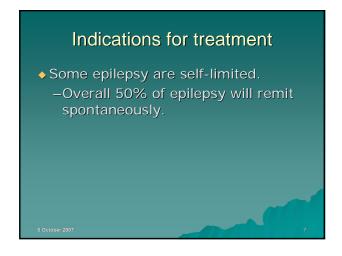
When and how to start AEDs

Epilepsy management Indications for treatment Treatment of single seizure Principles of epilepsy management Choice of antiepileptic drugs Maintenance therapy Monitoring strategies

Indications for treatment

Indications for treatment Two or more un-provoked seizures = epilepsy Hallmark = recurrence Recurrence may need prevention. However, not all patients with epilepsy need Rx!

Indications for treatment Not all paroxysmal events are seizures Not all seizures are manifestations of epilepsy! Provoked seizures Some seizures are self-limited. Occurring in acute medical or neurological illness

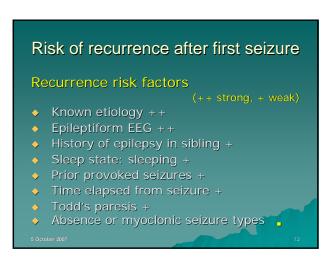


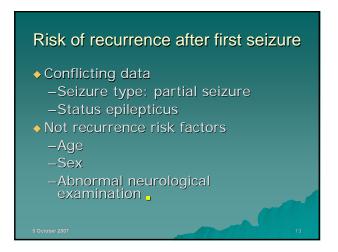
Indications for treatment Nature and severity of consequences of seizures vary widely on • seizure type • timing and frequency of attack • age and condition of patients • response of patient, family, society • type of employment • driving license • consequence of treatment

Indications for treatment Based on assessing how seizures interfere with ability to function quality of life health and well-being No single guideline applicable to all Individually interactive decision-making among patient, family and doctor source of the service of the s

Treatment of single seizure

Treatment of single seizure • Diagnosis problem - True seizure? - Un-provoked seizure? - Really first seizure? • Probability of recurrence - High or low • Consequence of recurrent seizure - Much or little • Current antiepileptic drugs ≠ antiepileptogenesis • October 2007





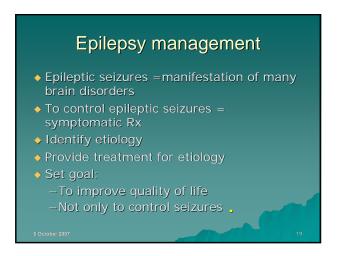


Definitely to treat single seizure With structural lesion Brain tumour, AVM, Infection Without structural lesion History epilepsy in sibling EEG with definite epileptic pattern Previous brain injury Previous symptomatic seizure Status epilepticus at onset



Probably not to treat single seizure Alcohol withdrawal, alcohol related Drug abuse Seizure in context of acute illness Acute symptomatic seizure Provoked seizure Postimpact seizure Post cerebral concussion Specific benign epilepsy syndrome

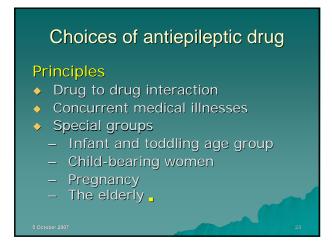
Principles of epilepsy management



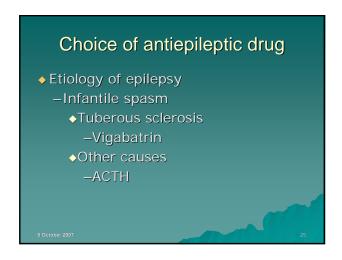


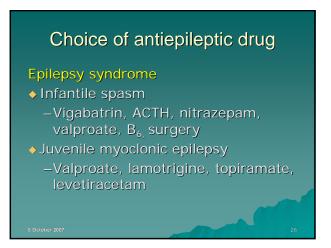


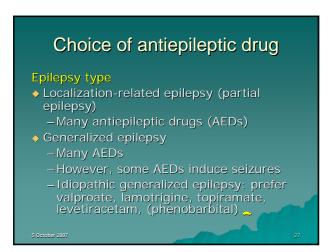


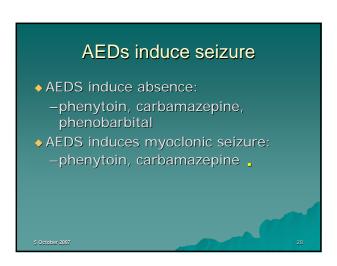


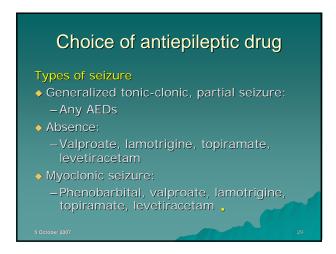


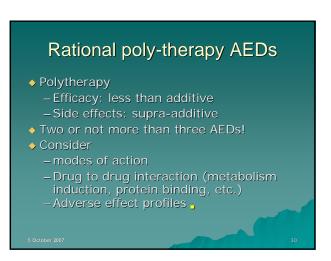








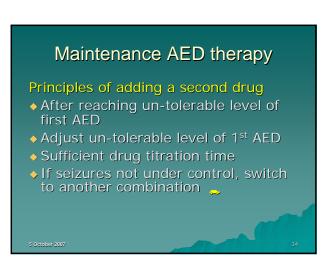


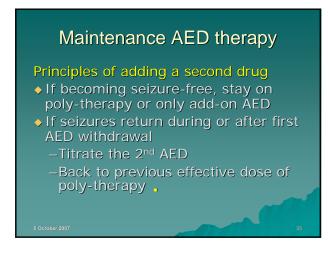




Maintenance AED therapy Start with small dose to minimize risk of initial side effects and allergic reaction Gradually increase to minimum effective dose Allow sufficient time between dose or drug changes for efficacy evaluation (5 times of half life)

Maintenance AED therapy Dose frequency: depend on half life preparation i.e. slow release form metabolism: age, co-medication, liver or renal function The more frequent dosing the poorer compliance! The more complicated AED regimen the poorer compliance!

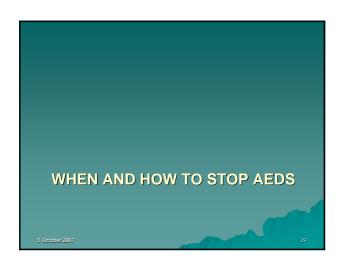




Monitoring strategies

Monitoring strategies Inform patient about adverse effects Pre-treatment screening Complete blood count Liver function test Renal function test Intermittent adverse effect monitoring may not cost-effective in healthy patients However, monitoring may benefit in high risk patients Notify physician as soon as possible when side effects or allergic reaction develop

Monitoring strategies Indication for drug level monitoring Optimal therapeutic dose No good relationship between dose and efficacy Good relationship between active drug level, efficacy and side effect To ensure drug compliance To guide dose adjustment To guide poly-therapy To document toxic level



Discontinuing antiepileptic drugs Patient and family decision with provided information Weighing between risk of Drug discontinuation recurrent seizure Continuing AED Gradually discontinue AED in 2-3 months

Discontinuing antiepileptic drugs After seizure-free for 2-5 years in adults, 1 year in children Not having high risk of seizure-recurrence brain pathology Not having high risk of seizure-recurrence epilepsy syndrome Easy to control epilepsy Well control with mono-therapy EEG is not strong predicting factor!

Risk factors of relapse Short duration of seizure freedom prior to drug withdrawal Age above 16 Epilepsy with onset in adolescence or adulthood Juvenile myoclonic epilepsy Remote symptomatic epilepsy History of myoclonic epilepsy

Risk factors of relapse

- ◆ History of atypical febrile seizure
- Prolonged period before achieving seizure control
- Seizures while on treatment
- Seizure control requiring multiple drug therapy
- Abnormal FFG
- ◆ Learning disability

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43