

Visual summary of recommendations: Epilepsy Surgery

Good practice statement: Every patient with drug-resistant epilepsy should have access to a tertiary epilepsy center (Level 3 or 4) for evaluation of epilepsy surgery.

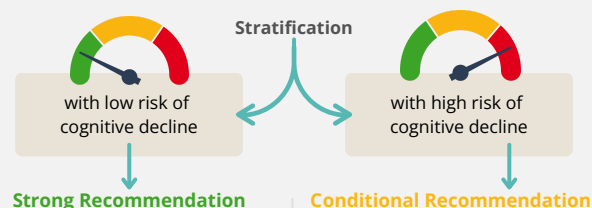
Population - Drug resistant epilepsy

People with Mesial Temporal Lobe Epilepsy

Risk assessment for cognitive decline can be done using known and validated approaches

Intervention

Compared to best medical therapy



Anterior temporal lobectomy



Anterior temporal lobectomy

For both low risk and high risk of cognitive decline:

Conditional Recommendation



Selective amygdalo-hippocampectomy



Laser interstitial thermal therapy (LITT)

Conditional Recommendation Against



Radiosurgery

Mesial temporal lobe epilepsy is rare in children <12 years of age

Adults and Children with Drug Resistant Drop Attacks, Lennox-Gastaut Syndrome or Developmental Epileptic Encephalopathy

Intervention

Compared to vagus nerve stimulation (VNS)

Conditional Recommendation



Callosotomy

VNS is an acceptable option. It is less effective in terms of seizure outcomes but often a safer alternative.

Adults and Children with Epilepsy and Hypothalamic Hamartoma

Intervention

Compared to resective surgery

Strong Recommendation



Laser interstitial thermal therapy (LITT)

due to potential for harm with resective surgery

Conditional Recommendation



Radiosurgery

neither for or against

Radiosurgery is only suggested if LITT is unavailable or not possible

Adults and Children with Neocortical Epilepsy

Intervention

Compared to best medical therapy

Conditional Recommendation



Resective surgery

The consideration of functional proximity or overlap of epileptogenic zone to the functional cortex should be considered in decision-making.

Values and Preferences



A conditional recommendation highlights the need to account for individual patient circumstances and mandates shared decision-making to ensure that clinical decisions align with each patient's values and preferences. Individual patients may value seizure freedom and possible cognitive decline or complications with surgery differently.

Guideline Development



GRADE process: systematic review and evidence evaluation

Recommendations formulated by expert panel of epileptologists, neurosurgeons, neuropsychology, neuroethicist, patient representative

Evidence:

Low or very low = Conditional Recommendation

Moderate = Strong Recommendation