

Levetiracetam versus phenytoin for second-line treatment of paediatric convulsive status epilepticus (EcLiPSE): a multicentre, open-label, randomised trial

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STUDY DESIGN

- Multi-Center
- Randomized
- Open-label
- Prospective

POPULATION

Included

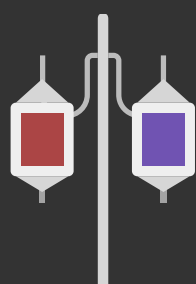
- 6 months to 18 years-old
- Convulsive Status Epilepticus resistant to benzodiazepines

Excluded

- Other seizures:
- Pregnancy
- Contraindication/ allergy to levetiracetam or phenytoin
- Prior enrollment
- Received 2nd line AED prior to enrollment
- Renal failure

INTERVENTION 1

Levetiracetam 40 mg/kg IV administered over 5 min. Max dose 2.5 g. No max rate.



INTERVENTION 2

Phenytoin 20 mg/kg IV over at least 20 min. Max dose 2 g. Max rate 1 mg/kg/min.

OUTCOMES

1 Time to Seizure Control

Time to cessation of convulsive activity

- No visible signs of convulsive activity
- Judged by treating physician

2 Need for further anticonvulsants

RSI to terminate ongoing seizure

Admission to critical care

Serious Adverse Event (death, SJS, rash, airway complication, CV instability, extravasation injury, PICU admission, agitation)

Levetiracetam
(n=149)

Phenytoin
(n=134)

35 min

45 min

37.5%

37.3%

30.0%

35.1%

63.8%

53.8%

54.8%

51.6%

* represents p<0.05