UCSD STATUS EPILEPTICUS GUIDELINE
for generalized OR complex partial status, either continuous or without return to baseline mental status in between seizures

0-3 min from sz start
• Diagnose: FSBG, CBC, CMP, coags, AED levels, troponin, ABG, uox, salicylates, EtOH level. Stat noncon head CT or MRI after pt stops seizing.
• ABC: cardiac monitor (cycle BP q2min), ensure IV access, intubate if 02 sat low >3min

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ONGOING SEIZURE?

3-10 min
• Lorazepam 2-4mg IV STAT. Repeat q5 min until seizures stop (max total 0.1mg/kg)
• If no IV access, give midazolam 10mg IM/intransal/buccal. If midazolam unavailable, give Diastat 20mg PR (diazepam 20mg IV can be given PR if Diastat unavailable)
• Thiamine 100mg IV and 50mL of D50 IV if low/unknown FSBG
• Page anesthesia to prep for possible intubation

AND

• Load 1 AED STAT (send pharmacist/RN/tech to pharmacy to obtain immediately):
  Fosphenytoin 20mg/kg IV @150mg/min (max 2g, MUST be on cardiac monitor), goal corrected level 20-25 3h post load
  OR
  Valproate 40mg/kg IV over 10 min (do NOT use in surgical or bleeding patients due to risk of platelet dysfxn).

If PHT/VPA contraindicated/not immediately available, or pt on AED at home:
Load IV Keppra (60mg/kg IV (up to 4g) at 100mg/min)
Patients on Phenobarbital: load 20mg/kg IV at 50-100mg/min)
Patients on Topamax: NG/PO Topamax (200-400mg)

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ONGOING SEIZURE?

10-20 min
• Intubation and burst suppressant if generalized status, or vitals unstable. If complex partial status and vitals stable, consider not intubating until minute 20.
• After intubation, start burst suppressant, place STAT cEEG/Ceribell & consult NCC
  Midazolam load*: 0.2mg/kg IV bolus; repeat 0.1-0.2mg/kg boluses q5min until sz stop, up to max total loading dose 2mg/kg. Start IV midazolam drip at 5 mg/h, may increase to max of 50 mg/h. Decrease dose in renal failure. May ↓BP.
  OR
  Propofol load*: 1mg/kg IV bolus; repeat 1-2mg/kg boluses q3-5min until sz stop, up to max total load 10mg/kg. Start IV propofol drip at 20mcg/kg/min, may increase to 200 mcg/kg/min. Check lactate/trigly/CK q8h. May ↓BP.

* To order cEEG, look under “neurophysiology orderables” in EPIC, order “Prolonged EEG,” state “cEEG,” then page on-call EEG tech. **NCC MUST be consulted to order cEEG (or epilepsy attending willing to oversee cEEG q2-4h). cEEG only available 8am-8pm. SEDLINES are in anesthesia tech monitoring room (in OR’s) at HC and in JMC 3F and should be used when cEEG is unavailable.
**OR**

**Phenobarbital load**: 20mg/kg IV load at 50-100 mg/min

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**ONGOING SEIZURE?**

| 20-60 min | • Intubate and load burst suppressant (Midazolam OR Propofol OR Phenobarbital)  
|           | • If burst suppressant already started, bolus/titrate up q5 minutes; maximize dose  
|           | • Load additional AED: If already loaded w/ fosphenytoin, give additional fosphenytoin 10mg/kg IV at 150mg/min. If already loaded with valproate, give additional valproate 10mg/kg IV over 5 min. If seizures continue, load 20mg/kg IV with whichever you have not already given.  
|           | • If unable to use PHT/VPA, load Keppra 60mg/kg over 20 min/lacosamide 400mg IV |

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**ONGOING SEIZURE?**

| >60 min |
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| • Add another burst suppressant (propofol or midazolam or phenobarbital)  
| • Consider ketamine: load 2mg/kg. Start drip @10 mcg/kg/min, increase up to 50 mcg/kg/min  
| • Consider pentobarbital*: load 5mg/kg at 50mg/min; repeat 5 mg/kg boluses until sz stop. Start drip at 1mg/kg/h, may increase up to 10mg/kg/h.  
| • Consider additional AED’s: Keppra IV, lacosamide IV, Topamax (200-400mgPO) |

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**ONGOING SEIZURE?**

| >days |
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| • Consider adding: lidocaine drip, ketogenic diet, moderate hypothermia, epilepsy surgery |

**ADDITIONAL POINTS TO CONSIDER:**

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| • Avoid fever, hypoxia, hypotension which exacerbate sz and increase mortality  
| • Treat quickly and precisely per protocol: 74% of pts stop seizing if protocol is followed exactly; only 29% stop if protocol is not followed (Aranda, 2010)  
| • If pt stops clinically seizing but mental status is not improving within 20 minutes, or has not returned to baseline mental status within 1hr, obtain Ceribell/cEEG (up to 50% of patients with generalized status epilepticus have NCSz after clinical sz stop)  
| • Status epilepticus kills: mortality is 17-26%, disability in survivors 40% |

https://enls.neurocriticalcare.org/protocols  
Brophy GM et al, Guideline for the Evaluation and Management of Status Epilepticus. Neurocritical Care, April 2012  