**GW Status epilepticus protocol**

**Applies to:**

Any adult patient (>40 kg) with:

Generalized tonic clonic seizures or focal seizures with altered awareness and at least one of following:

* Witnessed seizure lasting > 5 mins or ones with unwitnessed onset ongoing at the time treating physician assesses the patient
* 2 seizures occurring over >5 min without intervening recovery of baseline mental status

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| --- | --- |
| 0-5 mins | Supplemental O2, ABCs, IV access​, EKG, VS |
|  | Comprehensive metabolic panel, CBC, Anti-Seizure Medication (ASM) levels, tox screen, hCG, troponins |
| Consider thiamine 100 mg IV+ 50 mL D50 blood glucose (if applicable) |
| Emergent initial therapy  - IV lorazepam 0.1 mg/kg, OR  - IM or IV midazolam 0.15 mg/Kg  AND  Order IV Anti-Seizure Medication |
| 5 – 15 mins | IV Anti seizure medication:  1. Levetiracetam – 3000 mg IV load (if renal function is normal, 2 g for Cr between 1 and 2, and 1 g for Cr >2),  If status/seizures is still ongoing after 5 minutes of LEV, give  2. Lacosamide – 400 mg IV load  and  Order Propofol or midalozam |
| 15- 20 mins | Secure airway  Vasopressor support if needed  Non contrast head imaging  Give propofol IV OR Midalozam (see doses below)  Transfer patient to ICU  Order cEEG  Consult neurology |
| Ongoing SE on cEEG (refractory) | Maximize iv anesthetic/ add ketamine to midazolam  Add third anti seizure medication –  Valproate – 30 mg/kg IV load |
| Ongoing SE (super-refractory | If seizures still persists despite 2 anesthetics and 3 anti-seizure medications  Switch to pentobarbital  Add 4th ASM  fosphentoin  Phenobarbital \*failure to wean pentobarb  Clobazam  Topamax  \*\* Consider alternative therapy - ketogenic diet or immune therapy ( to be recommended by epilepsy) |

Status resolved on cEEG

Maintain seizure freedom for 24 – 48 hours followed by slow wean of cIV medications

Weaning protocol

Midazolam: over 6-12 hr​

Propofol : over 12-24 hr​

Pentobarbital : over 12-24 hr or stop the cIV

Ketamine: wean over 12 hours prior to starting midazolam wean

Failure to wean

(Frank clinical seizures resume Or ​continuous or frequent electrographic seizure resume (>1 sz/hr)) .

Immediate resume prior cIV at prior dose

AED dosing

**Levetiracetam** : 2000 mg IV load, may repeat if necessary (followed by 1.5 g IV BID)​

**Lacosamide** :400 mg IV load (followed by 200 mg IV BID)​

**Valproate** :30 mg/kg IV load over 10 mins (followed by 15 mg/Kg IV BID)​

Level – 80 – 100 mg/ml

**Foshenytoin** :20 mg/kg IV load up to 50 mg/min

Maintainence : 5 mg/mg in 3 divided doses every 8 hours

Level :15-20 mcg/ml

**Topiramate** :no load , 200-400 mg pNG q12 h​,

Level : 20 – 20 mcg/ml, watch HCO3

**Phenobarbital** ​:\*consider if failure to wean pentobarbital

Load 15-20 mg/kg​

Maintainence :1-4 mg/kg/d PO/IV div q6 or q8h​

Level – 30 – 50 mcg/ml

**Clobazam** : No load, 20 mg q12h pNG

cIV dosing ​

**Propofol :** Load - 1-2 mg/kg over 3-5 min; repeat every 5 mins until clinical seizures have resolved (max 10mg/kg)​

Initial cIV rate – 20 mcg/kg/min;increase by 10mcg/kg/min after each bolus ​

cIV range 10 – 80 mcg/kg/min​

**Midazolam:**Load : 0.2 mg/kg; repeat every 5 mins until clinical seizures resolve (max 1mg/kg)​

Initial cIV rate : 0.2 mg/kg/hr; incrase by 0.2 mg/kg after each bolus ​

cIV range : 0.2-2 mg/kg/hr

**Pentobarbital:** Load : 5mg/kg upto 50 mg/min: repeat as needed until cEEG shows bursts suppression

Initial cIV rate : 0.5 mg/kg/hr ​

CIV range : 0.5-10 mg/kg/hr

**Ketamine:** Load 1 mg/kg as Bolus; repeat every 5 minutes as needed

Initial cIV rate 5 mcg/min

cIv range 5-100 mcg/min