

# ED STATUS EPILEPTICUS TREATMENT GUIDELINE

GUIDELINE INTENDED TO PROVIDE FRAMEWORK FOR ANTIPILEPTIC DRUG (AED) MANAGEMENT FOR PROLONGED OR PERSISTENT SEIZURES. Defined as 5 minutes or more of: (i) continuous clinical and/or electrographic seizure activity (ii) recurrent seizure activity without recovery (returning to baseline) between seizures. THIS IS NOT INTENDED FOR ISOLATED OR FREQUENTLY REPETITIVE SEIZURES.

FINAL  
03-10-16



	No IV Access	INFANT < 6 MONTHS With IV Access	PATIENT >= 6 MONTHS With IV Access
If patient has received appropriate dose/route of first AED (or even 2 <sup>nd</sup> ) en route via EMS, proceed to the next step			
<b>&lt; 5 MINUTES</b> FIRST DOSE AED (ANTIPILEPTIC DRUG)	<p>CHOOSE ONE OF THE MEDS BELOW</p> <p><b>MIDAZOLAM INTRANASAL OR IM</b> 0.2 MG/KG INTRANASAL OR IM MAX SINGLE DOSE: 10MG</p> <p><b>DIAZEPAM PER RECTUM</b> ≤ 5 Y.O. AND ≥ 5 KG - 0.5 MG/KG PR 6-11 Y.O. - 0.3 MG/KG PR ≥ 12 Y.O - 0.2 MG/KG PR MAX SINGLE DOSE: 20MG</p> <p><b>LORAZEPAM IM</b> 0.1 MG/KG IM MAX DOSE: 4MG</p>	<p><b>LORAZEPAM</b> 0.1 MG/KG IV MAX SINGLE DOSE: 4MG</p>	<p><b>LORAZEPAM</b> 0.1 MG/KG IV MAX SINGLE DOSE: 4MG</p>
	<p><b>REPEAT</b> <b>MIDAZOLAM, DIAZEPAM OR LORAZEPAM</b></p> <p><b>PLUS FOSPHENYTOIN IM</b> 20MG PE/KG MAX SINGLE DOSE: 1.5GM CONSIDER IO ROUTE IF VOLUME TOO LARGE FOR IM ROUTE</p>	<p><b>REPEAT LORAZEPAM</b> <b>PLUS PHENOBARBITAL</b> PHENOBARBITAL 20MG/KG IV INFUSED OVER 20 MINUTES MAX SINGLE DOSE: 1GM</p>	<p><b>REPEAT LORAZEPAM</b> <b>PLUS FOSPHENYTOIN</b> FOSPHENYTOIN 20MG PE/KG IV INFUSE OVER 7-10 MINUTES MAX SINGLE DOSE: 1.5GM</p>
<b>5-10 MINUTES</b> SECOND DOSE AED ALONG W/ 2ND AGENT	<p><b>REPEAT FOSPHENYTOIN IM</b> 10MG PE/KG CONSIDER IO ROUTE IF VOLUME TOO LARGE FOR IM ROUTE</p>	<p><b>MIDAZOLAM BOLUS DOSE</b> 0.15 – 0.30MG/KG IV MAX SINGLE DOSE: 10MG</p>	<p><b>MIDAZOLAM BOLUS DOSE</b> 0.15 – 0.30MG/KG IV MAX SINGLE DOSE: 10MG</p>
	<p>OBSERVE PATIENT FOR 10 MINUTES AFTER FIRST IM DOSE BEFORE REPEAT DOSE ADMINISTERED</p> <p>IF UNABLE TO OBTAIN PERIPHERAL ACCESS, IMMEDIATELY PLACE IO OR CVL</p>	<p><b>CONTINUE MIDAZOLAM BOLUS DOSES</b> RE-BOLUS EVERY 5 MINUTES AND INCREASE BOLUS DOSE BY 0.05MG/KG IV UP TO 0.5MG/KG (MAX SINGLE DOSE 20MG) UNTIL CLINICAL SEIZURES STOP AND</p> <p><b>START MIDAZOLAM DRIP</b> START AT 0.1MG/KG/HR AND INCREASE THE DOSE BY 0.05MG/KG/HR EVERY 5 MINUTES TO A MAX OF 0.5MG/KG/HR (UP TO 20MG/HR) UNTIL CLINICAL SEIZURES STOP</p>	
		<p><b>REPEAT PHENOBARBITAL</b> 20MG/KG IV INFUSE OVER 20 MINUTES MAX SINGLE DOSE: 1GM <b>ADMINISTER WITH MIDAZOLAM</b></p>	<p><b>REPEAT FOSPHENYTOIN</b> 10MG PE/KG IV INFUSE OVER 7-10 MINUTES MAX SINGLE DOSE: 1.5GM <b>ADMINISTER WITH MIDAZOLAM</b></p>
<b>10-30 MIN</b>			
	<p>If the patient is intubated or considering admission to the PICU, contact the CHOA transfer center at 5-7778 to discuss admission need with the PICU Physician</p>		

**PATIENT STABILIZATION ALWAYS ASSESS ABCS**

**AIRWAY:** CONSIDER RAPID SEQUENCE INTUBATION: 100% O2, ET/CO2 MONITORING

**BREATHING:** CONSIDER BVM

**CIRCULATION:** IVF RESUSCITATION  
2 - IV LINES, IF POSSIBLE

**LABORATORY ANALYSIS:**

- CG8
- CBC
- CMP
- AED LEVELS
- OTHER WORKUP AS NEEDED

HUGHES SPALDING TRANSFER PROCESS:  
CONTACT CHOA TRANSFER CENTER AT 5-7778 TO ARRANGE TRANSFER TO EG OR SR PICU

URGENT CARE TRANSFER PROCESS:  
CONTACT CHOA TRANSFER CENTER AT 5-7778 TO ARRANGE TRANSFER TO EG OR SR EMERGENCY DEPARTMENT

**OTHER CONSIDERATIONS:**

- ORDER ALL MEDICATION DRIPS AS A "STAT" ORDER
- MANAGE THE BREAKTHROUGH SEIZURES PER NEUROLOGY

**CAUTION:**

- AVOID FOSPHENYTOIN FOR PATIENTS WITH DRAVET SYNDROME; USE PHENOBARBITAL OR DEPAKOTE
- AVOID DEPAKOTE FOR PATIENTS WITH MITOCHONDRIAL DISEASE

**IV ANTIPILEPTICS ADJUNCTS:** (STARTING DOSE)  
*Consider in cases of 2<sup>nd</sup> line medication shortage or if patient already on adjunct medication*

- KEPPRA (LEVETIRACETAM):**  
LOADING DOSE: 20MG/KG  
BEGINNING MAINTENANCE DOSE 10MG/KG  
INITIAL MAX DOSE: 1000MG  
5MG/KG Q12H IS USED FOR PROPHYLAXIS ONLY
- DEPACON (VALPROATE SODIUM):**  
5-10MG/KG  
INITIAL MAX DOSE: 500MG  
(DEPACON, DEPAKOTE, VALPROIC ACID)
- LEXICOMP LINK

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