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Executive Director

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Medical Director

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CYCLIC ANTIDEPRESSANT OVERDOSE

- I. AUTHORITY: Health and Safety Code, Division 2.5, California Code of Regulations, Title 22, Division 9
- II. PURPOSE: To serve as the treatment standard for EMT-Is and EMT-Ps in treating patients.
- III. PROTOCOL:

Cyclic antidepressant toxicity has a high fatality rate, even in patients who are awake and alert at the scene. The severity of an overdose can be easily underestimated.

A cyclic antidepressant overdose is characterized by:

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| 1. a rapid deterioration in mental status, | 4. flushed skin and |
| 2. rapid onset of apnea, | 5. dry mucous membranes. |
| 3. dilated pupils, | |

These are usually associated with respiratory depression and tachycardia. Widened QRS complexes and associated ventricular arrhythmias are generally signs of a life-threatening ingestion.

Types of cyclic drugs include: amitriptyline (elavil, efrafon, triavil, limbitrol), amoxapine (asendin), desipramine (norpramin), doxepin (sinequan), imipramine (tofranil), maprotiline (ludiomil), nortriptyline (aventyl, pamelor), trimipramine (surmontil), and protriptyline (vivactyl). Be aware that cyclic antidepressants are used for childhood attention disorders and chronic pain, as well as by depressed or bipolar patients.

STANDING ORDERS	
ABCs	
SECURE AIRWAY	As appropriate. Confirm tube placement, if intubated, with end-tidal CO ₂ detector and esophageal detector device. Monitor intubated patients with continuous waveform capnography if available.
OXYGEN	
MONITOR	Note any tachycardia. Measure and record QRS width.
ASSESS	For any signs of severe cyclic antidepressant intoxication: GCS less than 15, HR greater than 100, systolic BP less than 90 mmHg, QRS greater than 0.12 second, more than 6 PVCs/minute or seizures.
IV ACCESS	If HR greater than 100 or systolic BP less than 90 mmHg: two 14-16 gauge, wide open until 2 liters infused, then titrate to systolic BP 90-100 mmHg.
SODIUM BICARBONATE	1 mEq/kg slow IV push for any of the above signs of cyclic antidepressant intoxication. Repeat 0.5 mEq/kg slow IV push every 5 minutes for persistent signs and symptoms.
ACTIVATED CHARCOAL	50 gm PO, if patient is alert, protecting his/her airway, and has not ingested a CNS depressant.
CONSIDER	
MIDAZOLAM	If seizing: 2.0 mg. initial dose IV push. Titrate in 1.0 mg. increments for seizure control (maximum dose: 6 mg). NOTE: Most cyclic overdose seizures are short lived and do not require the administration of midazolam. If unable to establish IV after 1 attempt, give 5 mg IM. May repeat once in 10 minutes if seizures continue.
BASE PHYSICIAN ORDERS	
EPINEPHRINE	0.1 mg (1.0 ml) of 1:10,000 slow IVP if systolic BP less than 90 mmHg. Repeat to BP 90-100 mmHg.