

TRICYCLIC ANTIDEPRESSANTS (TCA's) TREATMENT APPROACH

DURATION OF MONITORING:

Any patient, referred to hospital, should have decontamination as below and EKG monitoring for 6 hours. If, at that time, the patient remains completely asymptomatic with normal vitals for their age group and a normal repeat EKG, they may be discharged home or to psychiatry as indicated. Any patient, who has had symptoms compatible with a TCA overdose, should be monitored for at least 24 hours following resolution of symptoms.

DECONTAMINATION:

TCA's have been known to cause bezoars. TCA's may cause delayed gastric emptying and decreased bowel motility. Hence SDAC is indicated for the patient with a protected airway.

SUPPORTIVE CARE:

The Airway should be secured and ventilation initiated for those patients with a depressed level of consciousness. Respiratory acidosis may worsen hypotension, dysrhythmias and seizures. Continuous cardiac monitoring and 12 lead EKG are indicated.

FLUMAZENIL SHOULD NOT BE USED IF A TRICYCLIC ANTI-DEPRESSANT INGESTION IS POSSIBLE.

FOR HYPOTENSION, give, as necessary:

- a normal saline fluid bolus 10-20 mL/kg
- then, titrate norepinephrine from 0.1-1.0 µg/kg/min**
- then, add other pressors or inotropes as necessary (may follow bedside ECHO, U/S)
- consider a Lipid Emulsion 20% bolus and infusion *as per the recommendation of the Toxicologist-on-call*. This may precede or substitute for vasopressors and inotropes. See **Lipid Resuscitation Therapy** Poison Centre resource page.

FOR SEIZURES, give benzodiazepines and propofol if necessary, and blood pressure support.

FOR WIDE COMPLEX QRS > 0.10 msec (in any lead) & VENTRICULAR DYSRHYTHMIAS, give, as necessary:

- See **Sodium Bicarbonate (NaHCO₃) Therapy for Sodium Channel Blocking Agent Toxicity with Wide QRS** Poison Centre resource page
- IF dysrhythmia, then, lidocaine, 1 mg/kg bolus
- Consider Lipid Emulsion 20% bolus and infusion *as per the recommendation of the Toxicologist-on-call*. This may precede or substitute for lidocaine. See **Lipid Resuscitation Therapy** Poison Centre resource page.

† There is no evidence that a bicarbonate infusion prevents against QRS widening or dysrhythmias and is NOT indicated in early TCA presentations. There is no specific evidence that a bicarbonate infusion, after boluses, when the QRS has widened, improves outcome, but may have some theoretical benefit preventing acidosis.

(**If norepinephrine is not available OR the nurse and/or physician is not familiar with the drug, may use high dose dopamine titrated from 10-20 µg/kg/min OR epinephrine titrated from 0.2-1.0 µg/kg/min for α-adrenergic effects.)

SPECIAL CONSIDERATIONS:

Unusual other measures may be necessary for the patient who does not respond to any of the above therapies and include Magnesium for dysrhythmias, overdrive pacing, ECMO, or intra-aortic balloon pump (IABP) *as per the recommendation of the Toxicologist-on-call*.

REFERENCES:

ACMT, ACMT Position Statement: Guidance for the use of intravenous lipid emulsion. J Med Toxicol. Published on line, April 27, 2016.
Yates C. et al., Extracorporeal treatment for tricyclic antidepressant poisoning: recommendations from the EXTRIP Workgroup. Semin Dial., 2014; 27(4): 381-9.



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