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.

FOR SEIZURES, give benzodiazepines and propofol if necessary and BP supports.

FOR WIDE COMPLEX QRS > 100 msec (in any lead) & VENTRICULAR DYSRHYTHMIAS, give, as necessary:

- See **Sodium Bicarbonate Therapy Poison Centre patient care resource Document**
- 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.

† 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.)

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 and intra-aortic balloon pump (IABP) *as per the recommendation of the Toxicologist-on-call*.

SPECIAL CONSIDERATIONS:

LIPID EMULSION DOSING

Bolus: 1.5mL/kg push 20% lipid emulsion; may repeat X 1

Infusion: See **Lipid Resuscitation Therapy Faxable Sheet**. Maximum dose **12 mL/kg**.

Potential Complications: hyperlipidemia
Pancreatitis
ARDS

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.