

LipidRescue™

TREATMENT FOR LOCAL ANAESTHETIC-INDUCED CARDIAC ARREST

Emerging evidence supports using intravenous fat emulsion (Intralipid) therapy for various drug overdoses, particularly those that are lipophilic. Within seconds to minutes of administration, toxic cardiovascular effects are reversed, including return of spontaneous circulation in cardiac arrest patients. Central nervous system effects also tend to improve.

Lipophilic agents for which there has been success include:

- Calcium channel blockers (verapamil, diltiazem, amlodipine)
- Beta blockers
- Bupropion
- Quetiapine
- Lamotrigine
- Sertraline
- TCA's
- Diphenhydramine

In the event of local anaesthetic-induced cardiac arrest that is unresponsive to standard therapy, in addition to standard cardio-pulmonary resuscitation, Intralipid 20% should be given i.v. in the following dose regime:

- Intralipid 20% 1.5 mL/kg over 1 minute
- Follow immediately with an infusion at a rate of 0.25 mL/kg/min,
- Continue chest compressions (lipid must circulate)
- Repeat bolus every 3-5 minutes up to 3 mL/kg total dose until circulation is restored
- Continue infusion until hemodynamic stability is restored. Increase the rate to 0.5 mL/kg/min if BP declines

A maximum total dose of 8 mL/kg is recommended

In practice, in resuscitating an adult weighing 70kg:

- Take a 500ml bag of Intralipid 20% and a 50ml syringe.
- Draw up 50ml and give stat i.v., X2
- Then attach the Intralipid bag to an iv administration set and run it over the next 15 minutes
- Repeat the initial bolus up to twice more – if spontaneous circulation has not returned.