

**OLIVE VIEW-UCLA MEDICAL CENTER
DEPARTMENT OF ANESTHESIOLOGY
POLICY & PROCEDURE**

**NUMBER: 500
VERSION: 3**

SUBJECT/TITLE: 098-LOCAL ANESTHETIC TOXICITY

POLICY: LOCAL ANESTHETIC (LA) TOXICITY

PURPOSE: To describe the use of 20% INTRALIPID (Lipid Emulsion) in the treatment of Local Anesthetic Toxicity.

DEPARTMENTS: ANESTHESIOLOGY

DEFINITIONS: 20% INTRALIPID HAS BEEN USED IN ALL RESEARCH STUDIES.
(Propofol is not a component of lipid rescue)

PROCEDURE: **BACKGROUND:**

Be vigilant to prevent systemic local anesthetic toxicity:

Calculate the local anesthesia drug dose. Consider co-morbidities and other factors that may lower the threshold for local anesthetic toxicity.

Monitor patient's mental status, electrocardiogram, blood pressure, and arterial oxygen saturation.

If Local Anesthesia Systemic Toxicity is suspected:

The infusion of 20% INTRALIPID has been shown to be successful to resuscitate a patient from cardiac arrest following the use of Bupivacaine.

Although small doses of Propofol might be of benefit to control seizure activity in the early stages of a toxic event, Propofol is relatively contraindicated when there is any evidence of cardiovascular collapse due to cardiac toxicity. Propofol is not a component of lipid rescue.

20% INTRALIPID will be available in the following Pyxis machines on the third floor: PACU (recovery room), Main Anesthesia Workroom, and OB/L&D Pyxis.

PROCEDURE: Follow the "Checklist for Treatment of Local Anesthesia Systemic Toxicity" which is also available from the "American Society of Regional Anesthesia and Pain Medicine (ASRA), as well as LipidRescue.org.

- 1) Get help and call for 20% INTRALIPID, (Fat Emulsion in the Pyxis machine)

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- 2) Follow procedures for Cardiac Arrest.
- 3) 20% INTRALIPID: Administer Bolus dose = 1.5 mL/kg intravenous over 1 minutes (approx.. 100 ml of 20% Intralipid for a 70 kg patient)
- 4) Seizure suppression is a key element of LA toxicity treatment since it is important to prevent the metabolic acidosis that accompanies tonic-clonic seizures. The means for achieving this includes benzodiazepines.

References:

- 1. Checklist for Treatment of Local Anesthetic Systemic Toxicity. American Society of Regional Anesthesia and Pain Medicine
- 2. The Third American Society of Regional Anesthesia and Pain Medicine Practice Advisory on Local Anesthetic Systemic Toxicity Executive Summary 2017. Joseph M. Neal, MD, and Guy Weinberg, MD, et. al.

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