

College of Naturopathic Physicians of British Columbia

Standards for the Safe Use of Intravenous Alpha Lipoic Acid

Alpha lipoic acid is a fat soluble antioxidant which can be administered intravenously in doses up to 600 mg. The standard stock solution is 100 mg per milliliter, at a pH of 9 to achieve solubility, and is therefore highly caustic to the vascular endothelium. ALA is degraded by exposure to light. Injected ALA is metabolized in 20 to 30 minutes. The following protocol is adapted from that of the National Institutes for Health (NIH) and must be strictly adhered to by CNPBC members:

- 1. Platelet disorders are a contraindication for intravenous ALA therapy, and must be ruled out by a complete blood count (CBC). This test must be dated within 6 months of the ALA therapy.
- 2. Use only European source pharmaceutical grade ALA. Chinese ALA is not permitted at this time due to quality control issues. Purchase only from a licensed pharmacist and retain detailed records for each batch purchased.
- 3. Do not mix the ALA or administer the ALA infusion with any other medication whatsoever. Nothing else may be taken or eaten within 30 minutes before or after the ALA infusion.
- 4. Dilute the stock ALA 1:50, that is for every 1 ml. ALA add 50 ml. of 5% dextrose (D5W) or normal saline to correct pH and osmolality. Sterile water is not permitted.
- 5. Protect the medication from light, for example using a paper bag or towel around the drip bag. Store stock solution in the dark or in a shielded container.
- 6. Deliver by slow IV infusion, over a minimum of 20 minutes, for example drip 5 ml. with 10 mg. ALA per minute. Never exceed 25 mg ALA per minute. An I.V. drip is preferred to a push, as the infusion rate must be very slow. Rapid administration of inadequately diluted ALA can cause fat embolism and coagulopathies such as DIC, with potentially fatal consequences.
- Do not exceed 250 mg dose for the first treatment. Never exceed a dose of 600 mg for an adult. Scale these doses down for small adults or children. Posology algorithms may be found in the CPS.
- 8. Monitor and document the patient's vital signs for 30 minutes after the first infusion ends, or any subsequent treatment where the dose has been increased. For routine infusions monitor a minimum of 15 minutes after the treatment. Toxicity signs may include dizziness, tremors, flushes, cramps, and difficulty breathing.