

# AAGBI Safety Guideline

## Management of Severe Local Anaesthetic Toxicity



### ACCOMPANYING NOTES

<b>1</b> <b>Recognition</b>	<p>Local anaesthetic intoxication can present in many different ways, making it very difficult to recognise.</p> <p>After injection of a bolus of local anaesthetic, toxicity may develop at any time in the following hour.</p> <p>Techniques involving infusion of local anaesthetic through a catheter allow intoxication to develop at any time.</p>
<b>2</b> <b>Immediate management</b>	<p>Some hospital laboratories have encountered difficulty analysing blood drawn during lipid emulsion therapy. If clinical circumstances allow, it may be prudent to draw blood for later analysis before lipid emulsion therapy begins.</p>
<b>3</b> <b>Treatment</b>	<p>1000 ml of 20% lipid emulsion should be immediately available to all patients receiving potentially cardiotoxic doses of local anaesthetic.</p> <p>20% lipid emulsion is readily available from most hospital pharmacies, which may also be able to help departments with timely replacement of bags nearing expiry.</p> <p>Intralipid® 20% emulsion has been used in the majority of reported uses of lipid emulsion as an antidote. Alternative preparations have also been used in successful resuscitations.</p> <p>Although some propofol preparations are provided in Intralipid®, e.g. Diprivan®, these are not a suitable alternative due to the significant cardiovascular depression caused by the propofol. This does not preclude the use of small, incremental doses of propofol to treat convulsions.</p> <p>In extremely obese patients, doses of lipid emulsions should ideally be based on an estimate of lean body weight.</p> <p>The interaction between lipid emulsion treatment and other cardioactive drugs used in resuscitation is unclear. Some evidence suggests high doses of vasopressors are harmful in resuscitation in local anaesthetic intoxication.</p> <p>Conversely, some evidence suggests lipid emulsion therapy may be harmful in asphyxial cardiac arrest.</p>
<b>4</b> <b>Follow-up</b>	<p>The immediate management of severe intoxication by LA is extremely demanding. In the aftermath, completion of forms on websites may seem unattractive. However, every case can help prevent another and improve treatment of the condition. Thus, reports to relevant registries are extremely important.</p> <p>Pancreatitis has occasionally been associated with acute lipidaemia, and therefore should be excluded.</p>
<b>5</b> <b>Education</b>	<p>Educational material and up-to-date lists of relevant publications are available at <a href="http://www.lipidrescue.org">www.lipidrescue.org</a></p> <p>This guideline will be updated regularly; the latest version can be found on <a href="http://www.aagbi.org">www.aagbi.org</a></p>