

# VITALIPID N (INFANT)

<b>Indication</b>	<ul style="list-style-type: none"> <li>As a supplement in complete intravenous nutrition to meet daily requirements of fat-soluble vitamins<sup>1</sup> A, D<sub>2</sub>, E, and K<sub>1</sub></li> </ul>	
<b>INTRAVENOUS</b>	<b>Presentation</b>	<ul style="list-style-type: none"> <li>Ampoule 10 mL</li> </ul>
	<b>Dosage<sup>2</sup></b>	<ul style="list-style-type: none"> <li>4 mL/kg/day to a maximum of 10 mL/day</li> </ul>
	<b>Preparation</b>	<ul style="list-style-type: none"> <li>Draw up prescribed dose</li> <li>Add to fat emulsion (e.g. SMOFlipid or Intralipid 20%) using sterile procedure</li> </ul>
	<b>Administration</b>	<ul style="list-style-type: none"> <li>IV infusion at prescribed rate               <ul style="list-style-type: none"> <li>Do not filter</li> <li>Use opaque tubing (light protective) and coverings</li> </ul> </li> </ul>
<b>Special considerations</b>	<ul style="list-style-type: none"> <li>Avoid PN via PVL wherever possible</li> <li>May be supplied as compound product with fat emulsion</li> </ul>	
<b>Monitoring</b>	<ul style="list-style-type: none"> <li>If prolonged administration, consider periodic monitoring of liver function and blood levels of vitamins, (particularly A and D)<sup>3</sup></li> <li>Extravasation risk<sup>4</sup></li> </ul>	
<b>Compatibility<sup>3</sup></b>	<ul style="list-style-type: none"> <li>Intralipid 10% or 20%</li> </ul>	
<b>Incompatibility</b>	<ul style="list-style-type: none"> <li>Do not add other drugs and solutions to vitalipid N when mixed with lipid solution<sup>1</sup></li> </ul>	
<b>Interactions</b>	<ul style="list-style-type: none"> <li>Contains vitamin K<sub>1</sub>, which may interact with anticoagulants of the coumarin type<sup>1</sup></li> </ul>	
<b>Stability</b>	<ul style="list-style-type: none"> <li>Store below 25 °C. Protect from light. Do not freeze<sup>1</sup></li> <li>Start the infusion within 1 hour of dilution and use within 24 hours<sup>1</sup></li> </ul>	
<b>Side effects</b>	<ul style="list-style-type: none"> <li>No adverse effects reported<sup>1</sup></li> <li>With long term total PN, overdosage may occur<sup>1</sup> <ul style="list-style-type: none"> <li>Hypervitaminosis A: characterised by fatigue, irritability, loss of weight, vomiting and other gastrointestinal disturbances, polyuria and cracking and bleeding lips<sup>1</sup></li> <li>Hypervitaminosis D: characterised by hypercalciuria, intermittent hypercalcaemia, osteomalacia and bone pain; fractures reported<sup>1</sup></li> </ul> </li> <li>Fat embolism reported as a complication in the rapid infusion of lipid<sup>1</sup></li> </ul>	
<b>Actions</b>	<ul style="list-style-type: none"> <li>Vitamins for daily maintenance during the delivery of PN. The vitamins are soluble in the oil phase of the emulsion</li> <li>Active composition per 1 mL: vitamin A (retinol palmitate) 69 microgram (230 IU), vitamin D<sub>2</sub> (ergocalciferol) 1 microgram (40 IU), vitamin E (dl-alpha tocopherol) 0.64 mg (0.7 IU), vitamin K<sub>1</sub> (phytomenadione) 20 microgram<sup>1</sup></li> </ul>	
<b>Abbreviations</b>	IU: international units, IV: intravenous, PN: parenteral nutrition, PVL: peripheral venous line	
<b>Keywords</b>	Parenteral nutrition, fat soluble vitamins, vitamin A, retinol palmitate, vitamin D <sub>2</sub> , ergocalciferol, vitamin E, dl-alpha tocopherol, vitamin K <sub>1</sub> , phytomenadione	



The Queensland Clinical Guideline *Neonatal Medicines* is integral to and should be read in conjunction with this monograph. Refer to the disclaimer. Destroy all printed copies of this monograph after use.

## References

1. Therapeutic Goods Administration (TGA). Vitalipid product information. [Internet]. Canberra: Australian Government; February 2020 [cited 2021 September 27]. Available from: <https://www.tga.gov.au>.
2. Pereira da Silva L, Pissarra S, Alexandrino A, Malheiro L, Macedo I, Cardoso M. Guidelines for neonatal parenteral nutrition: 2019 update by the Portuguese Neonatal Society. Part II. micronutrients, ready-to-use solutions and particular Conditions. Portuguese Journal of Pediatrics 2019;50(3):220-31.
3. Australian Injectable Drugs Handbook. Nicolette Burridge, Keli Symons, editors. Vitamins Fat Soluable. 8th ed. [Internet]. New South Wales: Society of Hospital Pharmacists of Australia (SHPA); 2021 [cited 2021 September 28]. Available from: <https://aidh.hcn.com.au>.
4. Ainsworth S, McGuire W. Percutaneous central venous catheters versus peripheral cannulae for delivery of parenteral nutrition in neonates. Cochrane Database of Systematic Reviews. [Internet]. 2015, [cited 2021 September 28]. Issue 10. Art No.: CD004219. DOI:10.1002/14651858.CD004219.pub4.

## Document history

ID number	Effective	Review	Summary of updates
NMedQ22.078-V1-R27	11/01/2022	11/01/2027	Endorsed by Queensland Neonatal Services Advisory Group (QNSAG)

## QR code

