

Vitamin A and E solution

Newborn use only

2022

Alert	There are individual formularies for vitamin A and E. The dose recommendation of vitamins A and E oral solution in this formulary is based on the vitamin A content and may exceed vitamin E recommended dosage. Pentavite Infant, a commonly used multivitamin supplement in Australia, doesn't contain vitamin E.
Indication	Cholestatic liver disease
Action	Vitamin A: Fat soluble vitamin required for vision, growth and bone development, immune function and maintenance of epithelial cells particularly in the retina and respiratory tract tissues. Vitamin E: Antioxidant protecting cell membranes from oxidative stress. Active isomer is α -tocopherol.
Drug type	Fat soluble vitamins
Trade name	Bio-Logical Vitamins A and E Solution
Presentation	Bio-Logical Vitamins A and E Solution (50 mL bottle): Each 1 mL contains retinol palmitate 1.2 mg = Vitamin A 2210 units = 663 microgram retinol equivalents and d-alpha-tocopheryl acetate 75 mg = Vitamin E 102 units.
Dose	Refer to Vitamins in cholestasis formulary ⁽¹⁾ Individual vitamin A and E preparations are preferred options. Suggested dose if Bio-Logical Vitamins A & E Solution is chosen: 1 mL/day in 1 or 2 divided doses. Other preparations such as Pentavite Infant or Vitamin A is required to meet vitamin A requirements.
Dose adjustment	Therapeutic hypothermia – No information. ECMO – Not applicable. Renal impairment - No information. Hepatic impairment – No information.
Maximum dose	
Total cumulative dose	
Route	Oral
Preparation	No preparation is required
Administration	Oral: Administer undiluted with a feed
Monitoring	
Contraindications	Hypersensitivity to vitamins A or E, or any component of the formulation, hypervitaminosis A.
Precautions	Vitamin E interacts with iron and other oxidants or any polyunsaturated fatty acids. Vitamin E can increase serum bilirubin.
Drug interactions	Vitamin A may increase effects of anticoagulant and antiplatelet agents. Iron - Lowers bioavailability of Vitamin E. Vitamin E may increase the effects of vitamin K antagonists and antiplatelet agents.
Adverse reactions	Hypervitaminosis A: Irritability, vomiting, bulging fontanelle. Vitamin E: Sepsis, necrotising enterocolitis.
Compatibility	Not applicable
Incompatibility	Not applicable
Stability	
Storage	Protect from light. Store below 25°C.
Excipients	Sodium benzoate. Avoid exposure to sodium benzoate of >99 mg/kg/day in neonates.
Special comments	
Evidence	See individual Vitamin A and Vitamin E monographs for evidence summaries.
Practice points	
References	1. Vitamins in cholestasis. https://www.anmfonline.org/clinical-resources/

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Authors Contribution

Original author/s	Michelle Jenkins, Renee Dimond
Author/s of current version	Stephanie Halena, Srinivas Bolisetty
Evidence Review	Srinivas Bolisetty, Nilkant Phad, Karel Allegaert
Expert review	Kate Dehlsen
Nursing Review	Priya Govindaswamy, Kirsty Minter, Eszter Jozsa, Sarah Neale
Pharmacy Review	Stephanie Halena
ANMF Group contributors	Nilkant Phad, Bhavesh Mehta, John Sinn, Mohammad Irfan Azeem, Rebecca Barzegar, Helen Huynh, Cecilia Peng, Michelle Jenkins
Final editing	Thao Tran
Electronic version	Cindy Chen, Ian Callander
Facilitator	Srinivas Bolisetty

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