

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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