

Liquigen

RHW Newborn use only

2021

Alert	Approximately 0.5 g MCT/mL fat giving 4.5 kcal/mL.
Indication	Fat supplementation for neonates unable to digest or absorb conventional fats.
Action	Contains medium chain triglyceride (MCT) oil. MCTs are absorbed directly into the portal circulation and do not require bile salts for emulsification.
Drug type	50% Medium Chain Triglyceride and 50% water. Source of Oil: coconut and/or palm kernel oil.
Trade name	Liquigen
Presentation	250 mL emulsion
Dose	1–2 g/kg/day (2-4 mL/kg/day) in 3-4 divided doses.
Dose adjustment	
Maximum dose	4 g/kg/day
Total cumulative dose	
Route	Oral
Preparation	
Administration	Oral
Monitoring	
Contraindications	Acute intestinal obstruction Acute necrotising enterocolitis
Precautions	MCT oil can adhere to feeding tubes resulting in loss of nutrient. 3
Drug interactions	
Adverse reactions	Lipid aspiration pneumonia.(4)
Compatibility	
Incompatibility	
Stability	
Storage	Store in room temperature. Once opened, store in refrigerator and discard any remaining contents after 14 days.(5)
Excipients	Water, emulsifiers (E472c, E471) and citric acid.
Special comments	
Evidence	High concentrations of MCTs have been used in some preterm formulas to increase the coefficient of fat absorption of preterm infants. Beside their good absorption even in the presence of low luminal bile salts and pancreatic lipases, further arguments for the use of MCTs are their carnitine-independent transport into the mitochondria and subsequent oxidation that is more rapid than for longer chain fatty acids.(1) An RCT conducted by Vaidya et al in very low birth weight infants showed a significant weight gain in VLBW infants supplemented with MCT oil.(2)
Practice points	
References	<ol style="list-style-type: none"> 1. Koletzko B, Poindexter B, Uauy R (eds). Nutritional care of preterm infants: Scientific basis and practical guidelines. Worl Rev Nutr Diet. Baeel, Karger, 2014, vol 110, pp 82-98. 2. Vaidya UV, Hegde VM, Bhav SA, Pandit AN. Vegetable oil fortified feeds in the nutrition of very low birthweight babies. Indian pediatrics. 1992 Dec 1;29(12):1519-27. 3. Mehta NR, Hamosh M, Bitman J, Wood DL. Adherence of medium-chain fatty acids to feeding tubes of premature infants fed formula fortified with medium-chain triglyceride. J Pediatr Gastroenterol Nutr. 1991;13:267-9. 4. Wolfson BJ, Allen JL, Panitch HB, Karmazin N. Lipid aspiration pneumonia due to gastroesophageal reflux. Pediatric radiology. 1989 Sep 1;19(8):545-7. 5. Liquigen. Nutricia Advanced Medical Nutrition. Product information accessed on 28 June 2018.

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Authors Contribution

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