

POLYCYTHAEMIA

Supporting information

What is the cut-off packed cell volume (PCV) for treatment?

Treatment in the form of a partial exchange transfusion should be considered in neonates who are symptomatic, or who have a PCV >70% (Upadhyay, 2002). Hydration may be sufficient treatment in the stable infant (Pappas, 2004).

A systematic review of 6 studies (Dempsey, 2006) found no evidence of long term benefit from partial exchange transfusion, but an increased risk of necrotising enterocolitis (RR 8.68; 95% CI 1.06 – 71.1).

Dempsey EM, Barrington K. Short and long term outcomes following partial exchange transfusion in the polycythaemic newborn: a systematic review. *Arch Dis Child Fetal Neonatal Ed* 2006;91:F2-6

Pappas A, Delaney-Black V. Differential diagnosis and management of polycythemia. *Pediatr Clin N Am* 2004;51:1063-86

Upadhyay A, Aggarwal R, Deorari AK, et al. Polycythemia in the newborn. *Indian J Pediatr* 2002;69:79-82

Evidence Level: V

Sodium chloride 0.9% is the optimal dilutional fluid for exchange transfusion?

A systematic review of 6 studies in a total of 235 neonates (de Waal, 2006) found no clinically significant difference in effectiveness between plasma, 5% albumin, crystalloid solutions and sodium chloride 0.9%. As it is cheap, easily available, and carries no risk of transfusion-associated infection, the authors concluded that sodium chloride 0.9% was the best fluid to use for exchange transfusion.

de Waal KA, Baerts W, Offringa M. Systematic review of the optimal fluid for dilutional exchange transfusion in neonatal polycythaemia. *Arch Dis Child Fetal Neonatal Ed* 2006;91:F7-F10

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