

## RENAL FAILURE

### Supporting information

This guideline has been prepared with reference to the following:

Selewski DT, Charlton JR, Jetton JG et al. Neonatal Acute Kidney Injury. Pediatrics. 2015;136:e463-73

<http://pediatrics.aappublications.org/content/136/2/e463.long>

**When treating severe hyponatraemia, what is the correct dosage of hypertonic saline (Sodium Chloride) to be used? (e.g NaCl 3% 4ml/kg over minimum of 15 mins vs 2-5ml/kg over 30-60 mins?)**

The BNF for Children (2013), referring to sodium chloride administered intravenously, recommend that "if sodium chloride is required, the deficit should be corrected slowly to avoid the risk of osmotic demyelination syndrome; the rise in plasma-sodium concentration should be no more than 10 mmol/litre in 24 hours" for children.

Aside from this, there appears to be little other than anecdotal evidence for details on dosage levels for severe hyponatraemia in neonates. Gouyon & Guinard (2000) recommend for example that Sodium Chloride (5-8 ml/kg of a 3% solution) is slowly given IV over 2 -3 hours.

BNF For Children. Intravenous sodium. 2015.

<https://bnf.nice.org.uk/treatment-summary/fluids-and-electrolytes.html>

Gouyon, JB, Guinard, JP. Management of renal failure in newborns. Pediatric Nephrology 2000; 14: 1037-1044.

**Evidence Level: V**

**Last amended August 2017**  
**Last reviewed December 2021**