British Inherited Metabolic Disease Group

MAKING INTRAVENOUS FLUIDS FOR METABOLIC PATIENTS

- **Please read carefully.**
- **Follow the instructions very carefully, checking each step. Any concerns or difficulties must be discussed with the consultant or pharmacist on call.**
- **Some of these methods only provide a close, but acceptable, approximation of the desired glucose and electrolyte concentrations.**
- **Method 1 is safer and preferred. Use method 2 only if concentrated glucose is not available.**

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0.9% Sodium Chloride 10% glucose 500ml bag

Method 1: If 0.9% Sodium Chloride 5% glucose is available.

a) Remove and discard 56 ml from a 500ml bag of 5% glucose 0.9% Sodium Chloride
b) To the remainder of the bag add 56ml of 50% glucose.

Method 2: Using a 500 ml bag of 10% glucose

Add 15ml of the 30% sodium chloride concentrate. Measure the sodium chloride very carefully.

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0.45% Sodium Chloride 10% glucose 500ml bag

Method 1: If 0.45% Sodium Chloride with 5% dextrose is available

a) Remove and discard 56 ml from a 500ml bag of 0.45% Sodium Chloride 5% glucose
b) To the remainder of the bag add 56ml of 50% glucose.

Method 2: Using a 500ml bag of 10% glucose

Add 7.5ml of concentrated 30% sodium chloride. Measure the sodium chloride very carefully.

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0.45% Sodium Chloride 5% glucose 500ml bag

This solution is generally available ready made up but if not use 0.45% Sodium Chloride or 5% glucose

Method 1: Using a 500ml bag of 0.45% Sodium Chloride

a) Remove and discard 50 ml from a 500ml bag of 0.45% Sodium Chloride
b) To the remainder of the bag add 50 ml of 50% glucose.

Method 2: Using a 500ml bag of 5% glucose

Add 7.5ml of concentrated 30% sodium chloride. Measure the sodium chloride very carefully.

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0.18% Sodium Chloride 10% glucose 500ml bag

These fluids should ONLY be used on the advice of a Metabolic Specialist due to the high risk of dilutional hyponatraemia

Method 1: If 0.18% Sodium Chloride with 5% glucose is available

a) Remove and discard 56 ml from a 500ml bag of 0.18% Sodium Chloride 5% glucose
b) To the remainder of the bag add 56ml of 50% glucose.

Method 2: Using a 500ml bag of 10% glucose

Add 3ml of concentrated 30% sodium chloride. Measure the sodium chloride very carefully