

PRESENTATION 500ml and 1,000ml packs of sodium chloride intravenous infusion 0.9%. 5 and 10ml ampoules for use as flushes.	INDICATIONS May be used as an alternative to sodium lactate intravenous infusion for blood and fluid loss, to correct hypovolaemia and improve tissue perfusion. Dehydration. Fluid replacement in hyperglycaemic ketoacidotic diabetic coma and pre-coma. As a flush after drug administration. As a flush when an intravenous cannula is in situ and where drug therapy may not be desirable.
ACTIONS Crystalloid solution for fluid replacement. To establish and maintain the patency of a cannula or for flushing drugs through.	CONTRA-INDICATIONS None. SIDE EFFECTS Infusion of an excessive volume may overload the circulation and precipitate heart failure (evidenced by increased breathlessness, wheezing and distended neck veins). Volume overload is unlikely if the patient is correctly assessed initially and it is very unlikely indeed if patient response is assessed after initial 250 ml infusion and then after each 250 ml of infusion. If there is evidence of this complication, the patient should be transported rapidly to nearest suitable receiving hospital whilst administering high concentration oxygen. No further fluid should be given.

DOSAGE AND ADMINISTRATION

In hypovolaemia, Medical Emergencies (e.g. anaphylaxis, GI bleeding, heat exhaustion).

Route: IV rapid infusion.

Concentration – 0.9%.

AGE	DOSE	VOLUME
Adult	250ml	250ml

ADULTS – Monitor physiological response; re-assess perfusion, pulse, respiratory rate and blood pressure wherever possible. If these observations improve, slow the infusion rate. If no improvement administer further 250ml boluses (maximum 2 litres).

	Medical Emergencies 20ml/kg		Medical Emergencies initial volume 5ml/kg	
AGE	DOSE	VOLUME	DOSE	VOLUME
11 years	700ml	700ml	180ml	180ml
10 years	640ml	640ml	160ml	160ml
9 years	570ml	570ml	140ml	140ml
8 years	520ml	520ml	130ml	130ml
7 years	460ml	460ml	120ml	120ml
6 years	410ml	410ml	100ml	100ml
5 years	370ml	370ml	90ml	90ml
4 years	330ml	330ml	80ml	80ml
3 years	290ml	290ml	70ml	70ml
2 years	240ml	240ml	60ml	60ml
18 months	220ml	220ml	60ml	60ml
12 months	200ml	200ml	50ml	50ml
9 months	180ml	180ml	50ml	50ml
6 months	160ml	160ml	40ml	40ml
3 months	120ml	120ml	30ml	30ml
1 month	90ml	90ml	20ml	20ml
Birth	70ml	70ml	20ml	20ml

ADULTS – In hypovolaemia:

If the patient remains hypotensive despite repeated 250ml boluses **AND** the patient is trapped on scene, request on-line clinical support. Excessive rise of blood pressure may cause re-bleeding and further haemorrhage. Aim to maintain a systolic blood pressure of 90mmHg, measured accurately where possible or estimated by the presence of a radial pulse where time is critical.

CHILDREN – In hypovolaemia:

If necessary a further dose of up to 20ml/kg may be administered as above. If still hypovolaemic seek on-line medical help.

CHILDREN – In hyperglycaemia:

Generally emergency IV fluids should be minimised or avoided because of serious side effects that may occur. See paediatric diabetic ketoacidosis.

Route: IV flush

AGE	DOSE	VOLUME
Adult or Child >5years	2ml-5ml	2-5ml
Adult or Child >5years	10ml-20ml (when infusing glucose)	10-20ml
Child: Neonatal <5years	2ml	2.0ml
Child: Neonatal <5years	10ml (when infusing glucose)	10-20ml

If infusion is established as a precaution – administer by slow rate to “keep vein open.”