

Condition	Fluid Rate	Solution
<b>Maintenance Fluid</b>	0-10 kg: 100 ml/kg/day 11-20 kg: 1000 ml + 50 ml/kg for each kg > 10 kg >20 kg: 1500 ml + 20 ml/Kg for each kg > 20 kg (max. 2400 ml)	D5 + 30 mEq/L NaCl + 20 mEq/L KCl
<b>Shock</b>	20 mL/kg of the isotonic fluid, over 20 min (may require multiple fluid boluses)	NS or RL
<b>Isonatremic Dehydration</b>	Rapid Volume repletion: 20 ml/kg (max. 1 lit) over 2 hr Maintenance + Defecit Volume + Ongoing Loss	Deficit Volume : Isotonic Fluid + 20 mEq/L KCl
<b>Subtle volume depletion</b>	20 mL/kg (max. of 1 L) of isotonic fluid over 1-2 hr - - - - -> then be switched to maintenance - - - - ->	NS or LR D5 ½ NS + 20 mEq/L KCl
<b>Hypernatremic Dehydration</b>	20-30% greater than maintenance	½ NS + 20 mEq/L KCl
<b>Hypernatremia with Sodium overload</b>	Maintenance + Ongoing Loss ± Loop Diuretics	Sodium free intravenous fluid D5 + 20 mEq/L KCl
<b>Pure Water loss (Diabetes Insipidus)</b>	Maintenance + Deficit + Ongoing Loss	D5 + 30 mEq/L NaCl (more hypotonic fluid) + 20 mEq/L KCl
<b>Hyponatremic Dehydration</b>	Maintenance + Deficit + Ongoing Loss	Isotonic saline + 20 mEq/L KCl
<b>Hypervolemic hyponatremia</b>	Water and sodium restriction + Diuretics 2/3- 3/4 Maintenance Fluid Renal Failure: Dialysis Nephrotic Syndrome: Albumin Heart Failure: improvement in cardiac output	D5 + 30 mEq/L NaCl + 20 mEq/L KCl
<b>Ongoing Loss</b>	<b>Diarrehea</b> (Replace stool ml/ml Q 1-6 hr)	D5 + 30 mEq/L NaCl + 20 mEq/L Sodium bicarbonate + 20 mEq/L KCl
	<b>Gastric Fluid</b> (NG tube Loss) Replace out put ml/ml Q 1-6 hr	NS + 10 mEq/L KCl
<b>Surgery</b>	<b>During surgery</b> and for 6-8 hr postoperation - - - - -> (the rate is 2/3 of the calculated maintenance rate)	NS/ RL
	<b>After surgery</b> - - - - -> Electrolytes should be measured at least daily	½ NS
<b>Third space fluid</b> (burns or abdominal surgery)	Replacement with an isotonic fluid ml/ml	NS or RL
<b>Chest tube</b>	Replacement with an isotonic fluid ml/ml	NS or RL or Albumin 5%
<b>Oliguria / Anuria</b>	Insensible fluid loss (25-40% of Maintenance) + Urine out put	Insensible fluid loss = D5 Urine out put = 1/2 NS
<b>Polyuria</b>	Insensible fluid loss (25-40% of Maintenance) + Urine out put	Insensible fluid loss = D5 Urine out put = Solution based on measured urine electrolytes

\*NS: Normal Saline RL: Ringer Lactate D5: Dextrose 5% ½ NS: Half Salin

\* Don't Start KCL in oliguria, Anuria or hyperkalemic patients

Reference: Nelsone 2011, P 213,214,218,243-247