

Acute renal failure in a child

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Minimum urine output
 >1ml/kg/hour in children
 >2ml/kg/hr in infants

Measure Fe Na% (=u/p sodium x p/u creatinine x 100)

<1% pre-renal

>2% renal

Shock usual
Urgent rehydration
 20ml/kg 0.9% saline IV

Repeat x 1 if necessary

Correct fluid deficit
 with 0.9% saline over 2-4 hours

Furosemide 2mg/kg IV

If BP still low -
inotropes

Try Furosemide 2mg/kg IV

Measure all intake and losses

Calculate insensible loss and increase by 50% if hot climate

Add all losses to insensible loss and give total fluid containing as many calories as possible

Weigh twice daily
Observe for oedema and heart failure

Diet: Limit protein intake 1g/kg/day
 Give calories as carbohydrate and fat
Restrict salt intake
Restrict phosphate intake
Avoid potassium in diet
 Add calcium carbonate orally 0.5-2g with each meal

Monitor BP regularly

Adjust drug doses
 Do not use nephrotoxic drugs

Watch for hypoglycaemia

Sodium bicarbonate 1mmol/kg/day to prevent acidosis

300ml/m²/24 hours
 or 12ml/kg/24 hours >1yr
 15ml/kg/24 hours infant
 24ml/kg/24 hours if preterm infant