Paediatric fluid management

Important physiological parameters

Blood volume (mL/Kg):
- Neonates: 80
- Adolescents: 30-40

Oral fluid intake (mL/Kg/day):
- Neonates: 150
- Adolescents: 30-40

Daily Na+ intake (mmol/Kg):
- Neonates: 2-3
- Adolescents: 1-2

Daily K+ intake (mmol/Kg):
- Neonates: 2-3
- Adolescents: 1

Systolic BP (mmHg):
- Neonates: 40-50
- Adolescents: 100-120

Resting pulse rate (bpm):
- Neonates: 120-160
- Adolescents: 70-80

Paediatric maintenance fluid regimen:
- 4 ml/kg for the first 10 kg (0-10kg)
- 2 ml/kg for the next 10 kg (10-20kg)
- 1 ml/kg for the remaining body weight (20+ kg)

Paediatric fluid resuscitation

Mild dehydration:
- 10 ml/Kg bolus
- Repeat as necessary

Moderate dehydration:
- 20 ml/Kg bolus
- Repeat as necessary

Don’t forget:
- Always calculate fluid & electrolyte requirements according to weight
- Remember to add glucose, especially for neonates
- Adjust fluid regimen according to clinical setting for premature babies & neonates