



Systemic Responses to Volume Loss in the Pediatric Patient

System	<15% Blood Loss	15-25% Blood Loss	25% Blood Loss	40% Blood Loss
Cardiovascular	HR normal or mildly increased; normal pulses; normal BP	HR increased; peripheral pulses diminished; normal BP	Significantly increased heart rate; thready pulses; hypotension	Severe tachycardia to bradycardia; hypotension
CNS	Slightly anxious	Irritable, confused, combative	Irritable or lethargic; dulled pain response	Lethargy; coma
Skin	Warm, pink; brisk capillary refill	Cool extremities; mottling; delayed capillary refill	Cool extremities; mottling; prolonged capillary refill	Cold extremities; pale or cyanosis
Renal	Normal urine output	Minimal decrease in urine output; increased specific gravity	Minimal urine output	No urine output

Infusion Medications/Counter Shock Guidelines

Therapy	Dose	Remarks
Defibrillation	2-4 joules / kg	Start with 2 joules / kg, then to 4 joules / kg if no effect
Synchronized cardioversion	0.5 - 1 joule / kg	Use with SVT, start with 0.5 joules / kg, then double if no effect
Epinephrine (1:1000) (1 mg/1ml)	0.6 x body wt (kg) = mg to add to 100 ml D5W	1 ml/hr delivers 0.1 mcg/kg/min
Dopamine and Dobutamine	6 x body wt (kg) = mg to add to 100 ml D5W	1 ml/hr delivers 1 mcg/kg/min (max=600 mg/100 ml)
Lidocaine	6 x body wt (kg) = mg to add to 100 ml D5W	1 ml/hr delivers 1 mcg/kg/min (max=800 mg/100 ml)