



## INTRAVENOUS (IV) LINES

Intravenous therapy is useful for maintaining fluid balance when oral fluids are contra-indicated, maintaining electrolyte balance, providing glucose and for the administration of IV medications.

Due to the risks of complications and infection, intravenous therapy should only be erected when indicated and be performed by suitably qualified staff using aseptic techniques

### When is an IV line needed?

- 1) In the premature infant who is unable to tolerate nasogastric feeds
- 2) In the post-operative infant, to rest the bowel to allow for healing
- 3) In conditions where oral feeds are not tolerated and long term antibiotics must be given, e.g. NEC
- 4) In certain congenital abnormalities
- 5) To replace fluid and to maintain electrolyte balance
- 6) In conditions causing severe vomiting, e.g. cerebral injury
- 7) For maintenance of blood sugar levels

### How are fluid requirements calculated?

These are calculated according to the mass and the age of the infant (see "[Feeding and Fluid Management](#)" guideline)

i.e.	Day 1	60 ml/kg/day
	Day 2 & 3	90 ml/kg/day
	Day 4 & 5	120 ml/kg/day
	Day 6 & 7	150 ml/kg/day

### What fluids are generally used?

- Neonatalyte
- Total parenteral nutrition, calculated by the paediatrician and prepared by the pharmacy, in consultation with the dietician

### What equipment is required?

- Infusion pump and syringe pump
  - 200 ml vacolitre
  - Giving set
  - 3 - way tap / clave
  - Extension set
  - Filter
  - Extras: swabs, gloves, strapping, Opsite<sup>®</sup>, chlorhexidine tincture
- } for peripheral lines

### Preparation for IV line insertion

- 1) Clean hands
- 2) Clean counter surface with chlorhexidine tincture
- 3) Run correct fluid through tubing and expel air bubbles
- 4) Clean insertion site with chlorhexidine tincture

### Procedure

- 1) The doctor or nurse inserts cannula in vein and checks for backflow
- 2) Assist with connection of intravenous line and ensure it is running
- 3) Assist with strapping of cannula – remember one must be able to change lines down to cannula
- 4) Place intravenous tubing through infusion pump and ensure correct rate of flow
- 5) Site to be inspected hourly for inflammation and infiltration
- 6) IV tubing needs to be changed every 72 hours
- 7) Write date on the line and record clearly into nursing process
- 8) Calculate and record infused volume hourly
- 9) Attend to any pump alarms promptly
- 10) Changing lines or fluids must be checked and counter signed on the fluid balance chart ([Form Paed/21](#)) by two nurses