

# HEPARIN SODIUM

## DESCRIPTION AND INDICATION FOR USE

Heparin is an anticoagulant agent that inhibits reactions that lead to the clotting of blood and the formation of fibrin clots. In the Special Care Nursery, heparin is used to maintain the patency of intra-arterial (IA) lines by preventing thrombus formation. For information regarding heparin as a systemic anticoagulant consult the pharmacy department.

## DOSE

To maintain patency of intra-arterial lines:

1 unit per mL, running at 1 mL per hour

## RECONSTITUTION/DILUTION

Ampoule = 1000 units in 1 mL

Use only 0.9% sodium chloride or 0.45% sodium chloride as infusion fluids

For INTRA-ARTERIAL Infusion:

1. Withdraw 33 mL from 500 mL bag of 0.9% sodium chloride (average overage in 500 mL bag)
2. Withdraw 0.5 mL (500 units) of heparin sodium from 1000 unit/mL ampoule
3. Add to 500 mL bag of 0.9% sodium chloride and mix well  
**Concentration = 1 unit/mL**
4. Withdraw 50 mL of 1 unit/mL heparin into a 50 mL syringe
5. Discard remaining solution

Usual order will be as follows:

DRUG	HOW TO MAKE UP	DOSE EQUIVALENT
Heparin sodium	1 unit/mL in 50mL 0.9% NaCl	1ml/hr = 1 unit/hr

Prepare fresh infusion solutions every 24 hours. Discard any solution more than 24 hours old.

## ROUTE AND METHOD OF ADMINISTRATION

**IA INFUSION:** Given as a continuous intra-arterial infusion via a syringe pump

## COMPATIBILITY INFORMATION

*Please contact your ward pharmacist for information on drugs or fluids not appearing in the table below. Medications that are not routinely used in the Special Care Nursery have not been included in this table and may be incompatible.*

	Compatible	Incompatible
Fluids	0.45% sodium chloride, 0.9% sodium chloride	ADMINISTER ALONE
Drugs		

## **SIDE EFFECTS**

- Haemorrhage
- Thrombocytopenia
- Hyperkalaemia
- Local irritation and skin necrosis – discontinue heparin therapy immediately
- Hypersensitivity reactions (eg: fever, rash, bronchospasm)

## **SPECIAL PRECAUTIONS**

- Recent cerebral haemorrhage, or those patients at risk of a haemorrhagic event
- Severe thrombocytopenia

## **DRUG INTERACTIONS**

*Other anticoagulant or platelet inhibiting medication (eg: warfarin, aspirin, dextran, ibuprofen, indomethacin):*  
Additive bleeding effects, use with caution

*Agents increasing serum potassium (eg: ACE Inhibitors, potassium sparing diuretics, potassium supplements):*  
Heparin decreases aldosterone production and may cause elevation of serum potassium. Concomitant use may lead to significant increases in serum potassium

## **NURSING RESPONSIBILITIES**

- Observations/Monitoring
  - Monitor platelet count and serum potassium levels
- To avoid excessive heparinisation, heparin flushes should not be used
- Do not mix with any other medications or infusions when administering via the arterial line
- Ensure infusion solution is changed every 24 hours