



POLICIES & PROCEDURES		
SOURCE:	Nursing Administration	Page: 1 of 3
ADDRESSEE:	Medical staff of CBHSSJB	CODE: G-113-02-64
SUBJECT:	Procedure for the IV administration of Phenytoin Sodium (Dilantin) at a high dosage > 500 mg	DATE IN EFFECT: March 2005
APPROVED BY:	Internal Management Committee CPDP	DATE: Mars 2005

INDICATIONS (parenteral route)

Treatment of status epilepticus and treatment and prevention of seizures occurring during or following neurosurgery.

PROCEDURE

Goal:

Because the infusion has to be done slowly, it is possible that the solution may precipitate. A filter of 0.2 micron must be used then to prevent precipitates that may form, from being injected into the blood circulation.

Make sure the infusion is safe and provide an adequate treatment.

Administration:

1. Install a NS 0.9% solute as a main solute.
2. Phenytoin Sodium must be diluted with a NS 0.9% solute at a concentration of 1 to 10 mg/ml in a large vein. The rate of administration must not exceed 50 mg/min for adults, 25 mg/min for elderly persons, and 1 – 3 mg/kg/min for newborns. Finish the infusion within 30 minutes (maximum dosage of 1,500 mg / 24 hours).
3. Phenytoin Sodium must be administered by intermittent infusion in mini bag or piggyback, and on volumetric pump.
4. To prevent precipitation and reduce local venous irritation, administer NS 0.9% solution after the infusion in the same catheter or needle.

Setting up the tubing (Cf. annex):**The Phenytoin Sodium solute must be secondary perfusion and on a pump:**

- Use macro-drop tubing (10) = (# 1)
- Insert spike (1.2) into the mini bag (usual technique).
- On the other end (1.8) adapt the 0.2-micron filter.
- Remove the protective cap from the end (2.1) and set it to the tubing (1.8).
- Turn and pull to remove the protective cover on the pointy tip of the filter (2.2) and insert it onto the female adapter of the tubing (**extension set # 3**) (3.2).
- Attach a Needle lock Device(3.5) to the other end (Sliding Luer).
- Open the clamps and empty the air from all the installation.
- Set your tubing on a volumetric pump.
- Attach the needle lock device to the injection site(3.6) the closest possible to your catheter insertion site (3.4).
- Administer immediately after preparing the mix.

NURSING WARNING

- High risk of pain at the IV injection site.
- Fast administration can provoke severe hypotension and depression of CNS.
- Avoid extravasation; Phenytoin has a caustic effect.
- Follow cardiac function and BP throughout the infusion.
- **Do not mix** to other solutions or medications, especially Dextrose, because a precipitate will form.
- The simultaneous use of IV Phenytoin and Lidocaine or Propanolol can lead to additional depressant effects on the heart.

THE MOST IMPORTANT SIDE EFFECTS

- Cardiovascular collapse
- CNS depression
- Hypotension (if administered too fast)
- At the injection site (with or without extravasation)
- Local irritation
- Inflammation
- Light pain
- Necrosis or even the formation of a wound.

