

PROCEDURE

ORIGINAL DATE: 12/93

Revised Date: 09/02

SUBJECT: PENTAMIDINE, IV ADMINISTRATION OF

PURPOSE: To safely administer IV Pentamidine in the home setting.

GENERAL INFORMATION

1. Pentamidine is an antiprotozoal agent. It is specifically active against penumocystis carinii. It is thought to interfere with nuclear metabolism and inhibit the synthesis of DNA, RNA, phospholipids and proteins. It is excreted in urine.
2. Pentamidine is indicated in the treatment of PCP.
3. Pentamidine should only be used if patient does not respond to or tolerate trimethoprim/sulfamethoxazole.
4. Pentamidine should be used with extreme caution in patients with hypertension, hypotension, hypoglycemia, hyperglycemia, hypocalcemia, leukopenia, thrombocytopenia, anemia, hepatic or renal dysfunction, ventricular tachycardia, pancreatitis, and Stevens-Johnson syndrome.
5. Pentamidine should not be used in conjunction with Foscarnet. Check with pharmacist on compatibility with other drugs.
6. Side effects include, but are not limited to: hypotension, hypoglycemia, thrombocytopenia, nephrotoxicity, hypocalcemia, rash leukopenia, elevated liver function tests, nausea, fever, anemia.

CONSIDERATIONS

1. Each patient referred to home administration of IV Pentamidine will be evaluated on an individual basis. Prior to initiating home therapy, patients should have received at least one dose in the hospital in which there were no serious adverse effects.
2. The physician ordering home Pentamidine therapy will be required to order treatment protocols in the event that the patient experiences adverse reaction(s) to this drug, i.e. hypotension, hypoglycemia, anaphylaxis.
3. Due to the short stability of Pentamidine when mixed in solution (24 hours) each dose must be mixed in the home prior to administration. The nurse should be sure to have orders from the physician which include the dose of the drug, volume of solution, and length of time over which the infusion should run (usually a minimum of 1 hour).
4. Before initiating infusion, the nurse should obtain baseline blood pressure (BP) and monitor BP every 15 minutes during infusion and upon its completion. The infusion should be discontinued for a drop in BP of 20 mm/hg and the physician notified. There should be a liter of IV hydrating solution on hand in the event of a sever hypotensive episode.

5. Patient's blood sugar should be monitored prior to each dose of Pentamidine.
 - (a) If blood sugar is between 80-100, give orange juice with added sugar prior to initiating infusion and recheck blood sugar when infusion is completed.
 - (b) If blood sugar is less than 80, do not give Pentamidine, notify physician.
 - (c) Always have 50 cc syringe of Dextrose 50% on hand when administering home Pentamidine therapy.
6. Recommended lab work includes:
 - (a) BUN (daily and prior to therapy)
 - (b) Blood sugar (daily, prior to therapy, and several times after therapy is completed)
 - (c) CBC, platelets, alkaline phosphatase, bilirubin, AST (SGOT), ALT (SGPT) serum calcium (before, during, and after course of therapy).
7. Nurse administering/teaching Pentamidine therapy will know approved indications for use, expected therapeutic effects, recommended dosage, side effects, and toxic symptoms.
8. The IV nurse will be present for the entire Pentamidine infusion.
9. LPNs may not administer Pentamidine IV.