

PROTOCOL FOR: Pamidronate Infusion: Care of the Patient Receiving

SUPPORTIVE DATA: Pamidronate belongs to a class of drugs known as bisphosphonates. Their mechanism of action is not clearly understood. It is known that they do injure osteoclasts, which are bone reabsorbing cells. They also reduce the production of stimulatory cytokines or proteins in the (myeloma) bone marrow environment - thus may also have an anti tumor action. Pamidronate has been used successfully in the treatment of malignancy associated hypercalcemia and Paget's disease of bone. Pamidronate may reduce the skeletal events (i.e. pathological fractures - bone pain) associated with long term steroid use and metastatic disease.

DESIRED
PATIENT OUTCOMES:

1. Patient will have a level of comfort as demonstrated by absence of or minimal:
 - a. Fever, chills, bone pain, muscle pain, muscle stiffness, muscle spasms, abdominal cramps, confusion, sore throat
2. The patient will maintain normal serum calcium levels.

DOSAGES: The dosage will vary depending on the purpose for administration. Average "low" dose for prophylactic treatment 30-60mg/250 - 500cc administered intravenous over 1-3 hours. For treatment of hypercalcemia a higher dose (90 mg/500 - 1000 cc) administered over 2-6 hours may be ordered (volume dependent).

SIDE EFFECTS:

1. 10-15% of patients can experience a fever with the first or second administration.
2. Flu-like symptoms may develop 16-24 hours after Pamidronate administration with bone pain, muscle pain and stiffness.
3. Abdominal cramps, chills, confusion, muscle spasm and sore throat have been reported.
4. Hypocalcemia:
 - a. Ionized calcium level <1.21 . Total calcium <8
 - b. Tetany - general muscular hypertonia
 - c. Facial spasm, oral paresthesia
 - d. Laryngeal spasm
 - e. Anxiety and apprehension

CLINICAL
ASSESSMENT

AND CARE: Monitor base line calcium levels.

PROTOCOL FOR: Pamidronate Infusion: Care of the Patient Receiving

1. Obtain and record baseline vital signs.
2. Administer Pamidronate per order.
3. Assess the patient for fever, chills, bone pain, muscle pain, muscle stiffness, muscle spasm, abdominal cramps, confusion.
4. Administer Acetaminophen per order for fever.
5. Assess for symptoms of hypocalcemia - administer calcium replacements as ordered.

Notify the physician if any of the following occur:

- a. Fever, chills, bone or muscle pain, abdominal cramps, confusion, muscle spasm.
- b. Tetany, facial spasms.

APPROVAL: Nursing Standard Committee

EFFECTIVE DATE: 7/97

REVISION DATES: 10/00, 3/02