

PROTOCOL FOR: Remodulin (Trepstinol Sodium): Continuous Subcutaneous Administration

- POLICY:
1. Remodulin can only be infused via the subcutaneous route. There should be back-up subcutaneous administration sets in the patient's room to use in the event of administration route problems.
 2. Remodulin syringes are changed every 3 days.
 3. The subcutaneous injection site should be changed every 3 days unless the patient has no site pain and the physician has authorized an extended time.
 4. Remodulin infusions will be infused utilizing a Medtronic Minimed 407C Pump (a portable, pager sized, battery-operated infusion pump). The pump uses a special reservoir syringe specially engineered for use with this pump. DO NOT use any other type of syringe.
 5. Remodulin has a half-life of approximately 3-4 hours, the continuous infusion must not be stopped longer than 3-4 hours. Interruption of Remodulin may be life-threatening.
 6. Remodulin doses are ordered as ng/kg/min which are calculated to an infusion rate expressed as ml/24 hours. This calculation is based on the patient's weight and the drug concentration.
 7. Remodulin is not compatible with any other medication.
 8. For an acute illness requiring hospitalization in either the Cardiac Step-Down Unit or in the Intensive Care Unit, obtain the Remodulin infusion from the pharmacy. Patients who are just beginning Remodulin therapy may draw up and administer the drug under supervision only after they have demonstrated/documented competence in administering the drug.

DESIRED

- PATIENT OUTCOME:
1. Patient will experience minimal to no complications related to continuous subcutaneous Remodulin, and in improvement of pulmonary hypertension symptoms.

CLINICAL
ASSESSMENT

- AND CARE:
1. Prior to Starting Infusion:
 - a. Obtain baseline laboratory data per MD order.
 - b. Document baseline vital signs, including patient weight.
 - c. Initiate the ordered infusion on the Minimed pump. A back-up Minimed pump must be available at all times.

PROTOCOL FOR: Remodulin (Treprostinol Sodium): Continuous Subcutaneous Administration

2. During the Infusion:
 - a. Monitor lab values per MD orders.
 - b. Monitor patient for signs/symptoms of Progressive Pulmonary Arterial Hypertension:
 - a. Chest Pain
 - b. Worsening dyspnea
 - c. Palpitations
 - d. Orthopnea
 - e. Syncope
 - c. Monitor patient for side effects of insufficient Remodulin therapy:
 - a. Bluish skin discoloration
 - b. Chest pain
 - c. Cough
 - d. Fatigue/weakness
 - e. Heart palpitations
 - f. Shortness of breath
 - d. Monitor patient for side effects of excess Remodulin therapy:
 - a. Diarrhea
 - b. Headache
 - c. Lightheadedness/fainting
 - d. Nausea
 - e. Vomiting
 - e. Monitor patient for side effects associated with chronic Remodulin therapy:
 - a. Depression
 - b. Diarrhea
 - c. Impotence
 - d. Jaw pain
 - e. Low blood pressure
 - f. Muscle Pain/foot pain
 - g. Sensitivity to sunlight
 - h. Ascites
 - f. Rotate the Minimed pump with the back- up pump every 3 days when the Remodulin syringe is changed.
 - g. Assure that extra batteries are available at all times.
 - h. Monitor infusion site. Erythema, pain, edema, and swelling are common at the site.

DOCUMENTATION: 1. Document assessment findings and interventions on the unit flowsheets, MAR, Infusion Record, and PFTR.

PROTOCOL FOR: Remodulin (Treprostinol Sodium): Continuous Subcutaneous Administration

2. Document patient response to teaching on patient and family teaching record.
3. Document patient's competence with self administration of drug.

APPROVAL: Nursing Standards Committee

EFFECTIVE DATE: 5/04

REVISION DATES:

REVIEWED DATES: 9/08