NURSING SERVICE GUIDELINES
GENERAL

Guideline: **Epoprostenol (Veletri/Flolan) Administration**

Policy Number Superseded:

Effective Date:
February 16, 2026

Initial Effective Date:
October 1987

Responsibility: Registered Nurse (RN)

Purpose: To provide guidelines for safe and uninterrupted administration of intravenous (VELETRI) therapy.

Statement: Optimizing care of patients with Pulmonary Hypertension through eporostenol (VELETRI) therapy.

Indications and Uses:
VELETRI, a prostacyclin, is a potent vasodilator used for the treatment of pulmonary arterial hypertension (PAH) (WHO Group I) to improve exercise capacity, scleroderma secondary to pulmonary hypertension, anticoagulation with CVVHD, and Raynaud's disease.

Procedure:

(A) Site of Administration. Peripheral access can be used until a central venous catheter is placed for administration of continuous infusion of epoprostenol (VELETRI) via infusion pump. **DO NOT** bolus or flush VELETRI (may cause excessive hypotension). **DO NOT** interrupt infusion (can result in rebound PAH, which can be life threatening).

(B) Dosage.

(1) For PAH.

(a) Initiation (under physician supervision): 2 ng/kg/min; increasing by increments of 1-2 ng/kg/min at ≥15-minute intervals until dose limiting side effects are reached or response to dose increase plateaus.

(a) 1,000,000 ng = 1 mg.
(b) Usual maintenance dose = 25-40 ng/kg/min.
(c) Dosing weight = patient's weight in kg at the time the medication is *initiated.* This dosing weight should not change and may not correlate with the current weight.

(b) Maintenance. Abrupt discontinuation or extreme dose alteration should be avoided; as serious or life-threatening adverse effects can manifest. These effects include, but are not limited to: hypotension, pulmonary edema, rebound pulmonary hypertension, flushing, chest pain, and nausea/vomiting.

(i) During transitions of care, patients should be maintained on their routine rate of administration.
(ii) Alterations in maintenance doses, whether increasing to achieve improved efficacy, or decreasing due to the presence of adverse effects, should be done only under the care of a physician on a unit with cardiac monitoring capabilities.

(2) For CVVHD - no dose adjustment necessary.

(3) Metabolism - rapid hydrolysis with minor enzymatic degradation.

(4) Half-life. Approximately 3-5 minutes.

(C) Stability.

(1) Protect from light.
(2) Room temperature - stable for 48 hours.

(D) Therapy.

(1) Initiation of new therapy.

(a) Pharmacist will contact prescribing MD to clarify dosage and approval of insurance coverage.
(b) Treatment must be initiated in a critical care unit. (Intermediate care unit is an option once on maintenance therapy.

(2) Maintenance therapy.

(a) Patients entering the hospital on their own continuous pump **MUST** be switched to hospital infusion pump and patient's medication is to be switched with UTMC's Veletri as soon as possible.
(b) Hospital medication concentration is to be the same as the home concentration. If concentration is different, the line must be aspirated first and primed with new concentration.
(c) Maintenance therapy can be admitted to intermediate care units.

(E) Initial priming/switching infusion sites.

(1) Notify MD prior to initial priming or transitions to new central line site in case complications arise.

(2) To avoid interruptions in therapy, it is recommended that the new site be primed with drug.

(a) To determine the priming volume for a new central line or PICC line site always aspirate the line with normal saline.
(b) Using a 3ml syringe, aspirate the saline until first sign of blood. The volume aspirated will be the priming volume.
(c) Withdraw the same volume as was aspirated from the epoprostenol (Veletri) infusion bag. This will be used to prime the new line.
(d) After priming the line, attach the infusion bag.

(3) After the new line has been primed, the nurse will connect the hospital infusion to the patient.

(4) Aspirate any remaining Epoprostenol (Flolan®, Veletri®) from the "old" site. DO NOT flush the old line prior to aspirating any remaining drug as

this could result in a bolus dose of the drug being administered to the patient.

(5) After all drug has been aspirated from the old line, turn on the new pump to the new central line site. Independent nurse verification is required.

(F) Contraindications.

(1) DO NOT draw blood from the same line (infusion must not be stopped).

(2) Epoprostenol (Veletri) is **NOT** compatible with heparin.

(3) Patients with heart failure caused by reduced left ventricular ejection fraction.

(4) Patients with hyper-sensitivity to the drug or any of its ingredients.

(G) Nursing monitoring/safety.

(1) Independent verification is required when a new bag is hung or for any changes in dose.

(2) Verify dosing weight (may not correlate with current body weight).

(3) Check bag to make sure the solution is clear and no particulate matter. If noted **DO NOT** use.

(4) Due to epoprostenol's short half- life (no greater than 6 minutes), keep an extra infusion pump and IV bag on hand and backup IV access so there is **NO INTERRUPTION** in continuous IV infusion.

(5) Critical care: Upon initiation and for each dosing adjustment, vital signs (BP, pulse, respiratory rate, and pulse oximetry monitoring) are obtained and documented.

(a) Every 15 minutes for one hour.
(b) Every 30 minutes for two hours.
(c) And then every hour if the patient is stable.

(6) Non-critical care patients on a maintenance therapy (no titrations needed): vital signs (BP, pulse, respiratory rate, and a pulse oximetry monitoring) are obtained and documented every 4 hours or per MD orders.

(7) Infusion of epoprostenol (Veletri) should **never be interrupted** – interruptions in medication delivery can cause rebound pulmonary hypertension or right ventricular failure. Keep pump alarms audible and avoid closing the patient's door.

(8) Patients leaving the floor for any reason should be accompanied by a nurse so that appropriate handoff can occur directly with the accepting nurse/MD (send back up pump and epoprostenol (Veletri) IV bag with patient).

(9) Monitoring for adverse reaction.

(a) Overdosing signs and symptoms. Facial flushing, jaw pain, hypotension, nausea and vomiting, abdominal cramping, headache, diarrhea, tachycardia, musculoskeletal pain, rash, and thrombocytopenia. If the patient develops any of these side effects related to therapy adjust dosing per protocol (see above). Additional monitoring or an increase in the level of care may be required or the Rapid Response Team (RRT)/Code Blue may need to intervene.

(b) Under-dosing signs and symptoms. Fatigue, worsening dyspnea, pallor and chest pain.

(10) If a patient begins to experience signs of respiratory distress or hemodynamic instability, contact the MD or RRT if appropriate.

(H) Discharge.

(1) Before the patient is discharged (new/established patients) or home health care nurse (new patients) will prepare epoprostenol using the patient's own drug supply and the patient will connect themselves to their own pump.

(2) If the home drug concentration is different from the hospital's concentration, the drug must be aspirated from the line and the line re-primed using the patient's own supply. REMINDER: **DO NOT** flush. This will be done under the supervision of the nurse.

(I) Nursing documentation.

(1) Vital signs documented in computer charting.

(2) Medication administration scanned/recorded in computer charting.

(3) Education to patients, families, and significant others regarding epoprostenol therapy, procedure, and equipment.

(4) Document patient education in computer charting.

(J) References.

(1) SMH Nursing Department Policy (2/2016) Policy # 129.060 Pharmacy, 126.207 Pt. Care

(2) The Ohio State University, Intravenous Prostacyclin Use in Hospitalized Patients-Safety First

(3) Actelion Pharmaceuticals US, Inc. 5000 Shoreline Court, Ste. 200 South San Francisco, CA 94080, Copyright 2016

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