HACKETTSTOWN REGIONAL MEDICAL CENTER
CARDIO PULMONARY POLICY MANUAL
INTRAVENOUS ECHO CONTRAST WITH OPTISON

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Purpose: Optison is indicated for use in patients with sub optimal echocardiograms to specify the left ventricular chamber and to improve the delineation of the left ventricular endocardial border. Optison enhanced echocardiography is performed during an echocardiogram, stress echocardiogram and/or stress echocardiogram with dobutamine on patents that meet the following criteria:

-Any patient that specifically has an echocardiogram ordered to evaluate LV function and 2 or more all segments can not be visualized

-Any peripheral vascular patient which is technically difficult to image.

Definition: Optison is a sterile non-pyrogenic suspension of microsphere of human serum albumin with perfluten gas used for contents enhancement. Optison is manufactured under an FDA approved manufacturing process.

Procedure: A. Indications:

Patients who are candidates for possible use of Echo Contrast may be identified by either a physician or an echo tech. When a echo tech or physician identifies a patient for whom IV echo contrast is indicated, the ordering or reading cardiologist will be contacted to obtain an order in Cerner.

Any patient whose echocardiogram has two or more wall segments which cannot be visualized in one or more views. Any patient who is technically difficult to image who is being evaluated for

-LV function
-Known for peripheral vascular disease
-R/O apical thrombus and/or cardiac tumors
-Suspected myocardial rupture or pseudo aneurysm
-All patients receiving exercise or pharmacologic stress echocardiogram studies

B. Contraindications:

Optison should <u>not</u> be administered to patients with known or suspected:

-Right to left, bi-directional, or transient right to left cardiac shunts
-Hypersensitivity to perflutren, blood, blood products, or albumin (see warnings)
-Do not administer Optison by intra-arterial injection.
-Do not administer Optison to women who are or may be pregnant
-Do not administer Optison to patients under 18 years old.

Activated optison should be administered with caution to patients with chronic pulmonary vascular disorders (e.g. severe emphysema, pulmonary vasculitis or other causes of reduced pulmonary vascular cross sectional area).

C. Administration of Optison:

Equipment:

- 0.9% Sodium Chloride, USP, and/or 5% Dextrose Injections,
- One (1) 3cc syringe
- One (1) 5 cc syringe
- 20 or 22 Gauge IVcatheter

- 4-6 inch extension tubing or J-loop
- Sterile vent spike or sterile 18 gauge needle
- Alcohol prep
- Tourniquet
- Microre tape
- Optison 3ml vial

1. Inform the patient regarding the indication for the use of Optison.
2. The sonographer, MD/DO, MLP or nurse must screen the patient for contraindications to the use of Optison.
3. Optison Preparation:
   - Invert Optison vial and rotate between palms of hands to resuspend product and bring to room temperature. Inspect the vial for complete resuspension. Do not use if after resuspension the solution appears to be clear rather than milky white or opaque.
   - Optison must be vented with a sterile vent spike or a sterile 18-guage needle.
   - Withdraw all 3 ml of Optison into a 3 cc syringe.
   - If the time from resuspention to injection of Optison exceeds one minute. Optison should be resuspended by gently rotating the syringe between the palms of the hands.
   - Optison does not contain preservatives. A single vial must not be used for more than one patient. Discard unused product promptly.
4. Dosing and Administration:
   - Optison should be administered in 0.5cc to 1.5cc doses to provide complete left ventricular opacification. The injection rate should not exceed 1 ml per second.
   - Optison injection should be followed by a 0.5 cc to 1.0cc flush of 0.9 NS or D5W at a rate of 1.0cc over 10 seconds.
   - Optison dose should not exceed 5.0ml in any 10 minute period. The maximum total dose should not exceed 8.7 ml.

D. Documentation:
   - Optison indication and dosing will be recorded on patient echocardiogram report by the attending Physician and a consent needs to be signed by the patient.
   - Sonographer, RN or MLP will document in patient medical record, date and time of test performed and type of contrast if used. Document vital signs and O2 Sat (if needed) at baseline and 30 minutes post final contrast injection (if needed).

-Order is written in the chart (inpatient) or on prescription of outpatient
-Contrast use is documented on "Stat/One Time Order" section of MAR
-Techs will document in echo log book and enter order under Echo Contrast and charge accordingly in Cerner for all patents.
-Cardiologist will create a report in Heart lab and it will be sent to Medical Records to be scanned into Cerner.