STANDARDIZED PROCEDURE

CONTRAST ECHOCARDIOGRAPHY

These procedures are intended to describe procedures performed by Nurse Practitioners and/or Certified Nurse Midwives (depending on the clinical privileges granted to the individual practitioner) at UC San Diego Health.

I. Policy:
The nurse practitioner is authorized to initiate, perform, alter or discontinue using of contrast agent(s) during echocardiography procedures for UCSDMC patients. The nurse practitioner is able to function with remote supervision within UCSDMC Cardiac Non-Invasive Lab or any setting affiliated with UCSDMC Cardiology Service for which competencies have been validated.

II. Protocol:

C. Definition: Contrast Echocardiography is a procedure used to enhance suboptimal echocardiographic images. It is used for assessment of left ventricular function (Ejection Fraction) and delineation of cardiovascular structures. This test will be done according to the policy and procedures of the Cardiac Non-Invasive Lab.

1. Data Base: May include but not limited to:
   - **Subjective** – Relevant history of past or present illness, surgical history, medication history, social history, family history, allergies, relevant review of systems, and relevant diagnostic procedures.
   - **Objective** – Suboptimal echo images and previous/relevant cardiac diagnostic tests.

B. Diagnosis: Assessment will be dependant upon data derived from subjective and objective data base. If diagnosis is not clear, a list of differential diagnosis will be provided. Diagnosis or diagnoses will be developed based upon and not limited to:
   - **Subjective** – Patient symptoms.
   - **Objective** – Echocardiographic findings with and without contrast.

C. Plan:
   i. Evaluate patient during pre-procedure screening for contraindications to specific contrast agent.
   ii. Educate the patient about the procedure.
   iii. Monitor patient, vital signs and echocardiographic findings during injection and washout phase.
   iv. A preliminary impression will be documented on the preliminary report form for echocardiography.
   v. Describe preliminary findings to the patient.
   vi. Report abnormal findings to a physician or referring provider.
   vii. Initiate follow-up evaluation for the patient when indicated.

D. Record Keeping: Each patient contact will be recorded on a UCSDMC approved form. Pre-procedure evaluation of outpatients will be documented on the outpatient procedure H&P short form. Preliminary impressions will be documented on the echo worksheet. Further documentation for emergency
department or admitted patients may be done on the approved UCSDMC interdisciplinary report form.

III. Requirements for the Nurse Practitioner
All general policies for the experience, training, education, initial evaluation, and ongoing evaluation are in effect for this standardized procedure.

VII. Guidelines for the Nurse Practitioner
A. Echocardiographic stress test patients may include, but are not limited to:
   • UCSDMC new patients referrals
   • UCSDMC established patient referrals
   • Outside referrals.

B. Contrast echocardiography patients may include patients from ambulatory and inpatient settings.

C. Cardiology nurse practitioner may supervise contrast echocardiography utilizing contrast agents including but not limited to:
   1. Definity®
   2. Optison®

VII. RESPONSIBILITY
Please contact the Advanced Practice Council if you need help. The administrative assistant for the Chief Nursing Officer can direct you. Call; 619-543-3438.

VIII. HISTORY OF PROCEDURE
Revised by the Committee of Interdisciplinary Practices: 2/26/2014, 9/28/2016
Reviewed by the Medical Staff Credentials Committee: 3/5/2014, 10/6/2016
Approved by the Medical Staff Executive Committee: 3/20/2014, 10/7/2016