Abstract:

PROBLEM: A quality echocardiogram often requires the use of enhancement (Definity) agents. In most cases it is unknown which patients will need Definity until the actual imaging is attempted. If Definity is needed, it becomes necessary to solicit help from appropriate staffing, a nurse or cardiology fellow (currently only nursing or cardiology fellows/physicians are permitted to push echo enhancement at UC Health) to start an IV, and inject or push the product into the patient. This entire process usually takes about 20 minutes totally; however, the actual delivery of the product is usually less than 5 minutes. The echo labs has 2.5 nursing staff which also perform or proctor the Exercise Stress Tests, Dobutamine Stress Tests or Trans-esophageal procedures during scheduled times. No dedicated nurse assigned to Definity delivery because the necessity is unknown in advance of the procedures and due to nursing staffing limitations. Among the thirteen or so busy sonographers performing echocardiograms in an inpatient/outpatient setting, enhancement is required at impromptu timeframes throughout the day. Barriers are encountered with enhancement delivery due to nursing staff/Fellow unavailability, severely long wait time, or the patient leaving without enhancement and returning at a later date, per physician order.

QI APPROACH: In our assessment we discovered that:

1. Nursing staff could usually break away; and delivery the product if the IV was already in place
2. Cross training additional staffing for IV insertion requires less time for the nurse to push Definity
3. Soliciting ICU nursing support

Cross trained staff included two CV tech, seven and Echo, techs. Meetings were scheduled with nursing educators on the ICUs to solicit enhancement delivery for inpatients. Approval was granted, and training/education for in-house nursing staff was completed. Definity tip sheets were constructed for additional help and coaching for in-house nurses.

EXPECTED OUTCOMES: Lack of nurse availability significantly reduced.

NEXT STEPS: Work with nursing educators to review hospital policy in efforts to gain approval for the delivery of enhancement by sonography which is within their scope of practice and practiced in other facilities around the country.