ASE June 11, 2022

Is My Lab Ready for Contrast Perfusion Stress Echocardiography? Tips and Tricks

Dr Merri Bremer from Mayo Clinic in Rochester presented:

Why we Decided to Start: Benefits and Challenges of Using Contrast Perfusion in Stress Echo

* Enhancing agents often used with DSE to improve LV border Delineation
* UEA may also be used to show perfusion
* Mayo is an RN-supervised practice
* 50% of DSE patients need contrast

A desire to increase frequency of myocardial perfusion imaging brought about a Quality improvement project

Looking at pump vs bolus push for contrast administration

Sonographers did not perceive any visual difference between dosing methods

There was increased satisfaction with the pump use

Physicians rate quality of studies perception increased with infusion

Physicians rating of UEA if beneficial, no benefit

Dobutamine infusion time added to DSE with UEA

Train all nurse to use infusion pumps

All Stress sonographers trained to do perfusion(where feasible for all DSE) Incorporate into sonographer training

Started in February 2021 3 days of training for each sonographer, more days if sonographer requested additional training

* Strong Echo lab leadership support
* Nurse and sonographer champions
* Continuous infusion of UEA liked
* Perfusion adds incremental value to DSE

Barriers : Equipment and Staff

* Resource constraints
* Staff
* Specialized pumps and equipment
* Additional time needed during training
* Extensive learning curve
* Increased time in appointment length during training period
* Interpretation, both sonographers and MD.s
* Reporting

COVID Less bandwidth for such a big project

Lost one physician champion to medical leave and additional MD to CCU

30 stress sonographers

25 RN

40 Physician Readers for stress

Lessons learned:

Recruit more champions

Start with a small core group

Slow, Steady Implementation

More robust training /resources especially for interpretation/ongoing education

Rest/Stress images acquired