

18TH ANNUAL CANADIAN ECHO WEEKEND
APRIL 7-9, 2016
TORONTO, ON

Session Title: **My Patient has Chest Pain**
Adding Contrast – Will it Suffice?
A Case Based Presentation

Presenter/Author: **Harald Becher**

OBJECTIVES: What questions or points will participants learn or discuss?

1. **Why contrast agents are useful in the majority of patients referred for assessment of myocardial ischemia**

2. **Imaging Protocols for clinical practice which make you confident with the findings**

3. **Criteria for normal/abnormal findings when state-of-the-art echo machine with very low MI contrast settings are used**

DISCUSSION: Please provide a summary of the discussion and/or include 3 to 6 key presentation slides.

Low and Very Low Mechanical Index (MI)
Imaging Techniques for Contrast Echo

Descriptor	Company Manufacturer(s)	Advantage(s)	Disadvantage(s)
Pulse-inversion Doppler and very low MI*	Philips Epiq/ iE33 Toshiba Aplio/Xario GE 1.5-, 1.6- and 1.7-MHz transducers	High resolution	Attenuation and dynamic range
Power modulation and very low MI*	Philips Sonos /iE33 GE 2.1- and 2.4 MHz transducers	High sensitivity	Resolution, image quality and dynamic range
Contrast pulse sequencing and very low MI*	Siemens Acuson	Image quality and high sensitivity	Attenuation and dynamic range
Low MI† harmonic (LVO)	All vendors	Image quality	Decreased contrast sensitivity, apical swirling and no perfusion

*Very low MI, <0.2.
†Low MI, <0.3.

Recommended

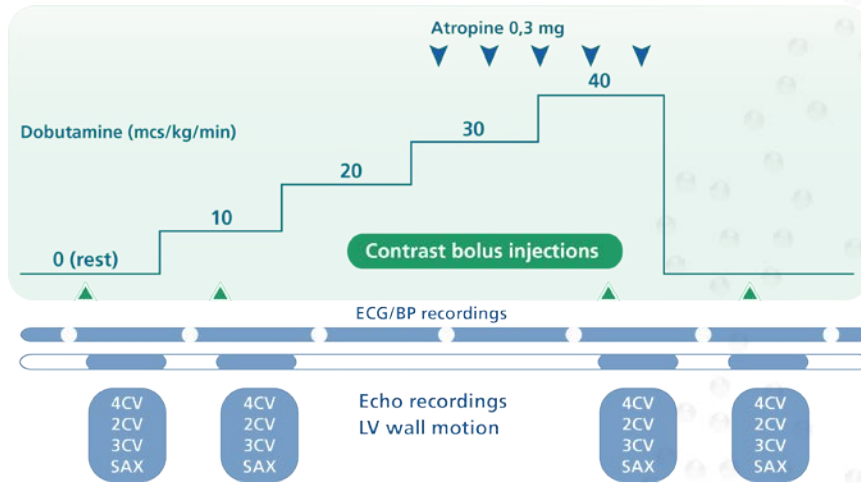
ASE sonographer guidelines 2014



Protocol with bolus injections of the contrast agent: for example 1 ml of

diluted Definity (0.3 ml in 10 ml saline) or SonoVue 0.5 ml

Dobutamine 2D Contrast Stress Echo for assessment of ischemia



* Additional echo recordings may be performed at intermediate stress (70% of target heart rate)

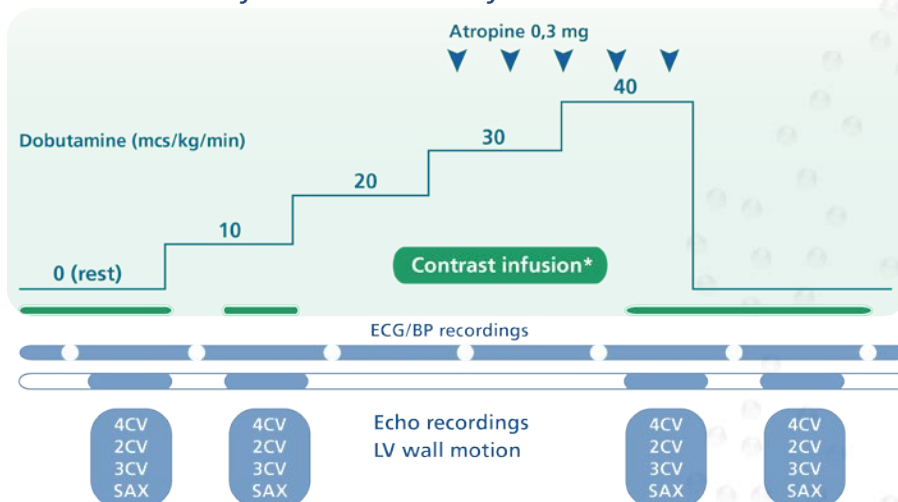
Use of contrast enhanced ultrasound in echocardiography

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RECOMMENDED Protocol with infusion of the contrast agent: for example 1ml/min of 1 vial Definity diluted in 30 ml or SonoVue infusion

Dobutamine 2D Contrast Stress Echo for assessment of ischemia



* Additional echo recordings may be performed at intermediate stress (70% of target heart rate)

Use of contrast enhanced ultrasound in echocardiography

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