Reviewer’s report

Title: WEB downloadable software for training in cardiovascular hemodynamics in the (3-D) stress echo lab

Version: 1 Date: 11 October 2010

Reviewer: Maurizio Galderisi

Reviewer’s report:

Very innovative proposal deriving from a group which always opens new tracks in the cardiologic community.

In general, the manuscript is well written but paragraphs are often too long and could be simplified. The references are not always updated and appropriate. Some reference is lacking.

In addition, I would propose the possibility to differentiate two different softwares for different users: the first, simpler and shorter, for practical cardiologist, polarized on the most common hemodynamic parameters which can be utilized in the clinical practice. The second one, enriched by detailed quantitative information which can be useful for cardiologists involved in research programs. This could encourage a large use of the software.

Detailed concerns The introduction is not very clear when the authors deals with 3D echocardiography: the meaning of the 3D advantage description in this part is not easy to understand for the readers.

Page 4: 3D derived end-diastolic frame is not triggered to ECG in all 3D softwares.

Page 4: Deceleration time of E velocity should be added in relation with its recognized physio-pathologic and prognostic value.

Page 4: ASE and EAE have standardized the nomenclature of early diastolic of mitral annulus as “e’” velocity; in addition ASE and EAE strongly encourage the average of septal and lateral annulus values of e’ velocity.

Page 5: Is diastolic time corresponding to “diastolic filling time”?

Page 4, Right atrial pressure: Please report reference of estimating right atrial pressure as described.

Page 5: Reference of methods for estimating pulmonary artery end-diastolic velocity is lacking.

Page 9: Please, replace “E/E’ ratio” with “E/e’ ratio”

Page 10, line8: Ref # 54 and 55 are not appropriate.

Page 14, line 16: Ref 68 is not appropriate

Page 14, RV diastolic dysfunction: None utilizes deceleration time of tricuspid E velocity because is not reproducible. Also RV IVER is poorly used because of its large variability.
In the opinion of this reviewer the figures are too many and Figure 9 and 10 have to be considered tables.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

No conflict of interest