Reviewer’s report

Title: Assessment of Inpatient Multimodal Cardiac Imaging Appropriateness at Large Academic Medical Centers

Version: 0 Date: 17 Sep 2015

Reviewer: Albert Varga

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The aim of the Authors of the present study was evaluate application of Appropriate Use Criteria (AUC) for various cardiac imaging modalities in an inpatient environment. They analyzed the "appropriateness" of 553 tests performed in 3 different centers. Transthoracic, transesopagheal echo, perfusion scintigraphy, and heart catheterizations were considered. The Author concluded that "The rate of appropriate ordering was high across all imaging modalities"

The paper is well written. I have the following comments and questions:

1. Regarding the Methods section the Authors stated that "Repeated investigations on the same patient were treated as independent events". This needs an explanation.

2. The study was carried out in 2 different months (in different years). Did the Authors found any differences regarding the appropriateness data in these periods?

3. Surprisingly, there was no inappropriate application considering neither perfusion scintigraphy nor heart catheterization. One of the reasons might be the significantly lower number of these 2 imaging modalities in the study population. The reason should be explained.

4. Furthermore, the distribution of the different exam types was not well balanced because of the low sample size (scintigraphy, TEE) neither in the whole study nor between sites (see perfusion imaging section) which could influence the statistical analysis, as well.

5. Both the Methods and Discussion section should be shortened.

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