

QUALITY CRITERIA FOR CORONARY ANGIOGRAPHY IMAGES

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Cardiac cine-angiographic images allow the cardiologist to evaluate the anatomic and sometimes functional details relevant for clinical decision-making. Correct angiographic technique is of foremost importance for the quality of cardiac imaging.

The use of the correct methodology and technique of examination can be assessed only by evaluating the final images and comparing these images to pre-specified criteria.

The European DIMOND Cardiology Group had set quality criteria for angiographic cardiac images, giving precise guidelines regarding the appearance of anatomical structures in cine-angiograms of coronary arteries.

The advent of new systems based on flat panel technology has modified the angiographic technique, increasing the performances in terms of image quality. SENTINEL cardiac group has reviewed and simplified the quality criteria set previously defined, taking into account these changes.

In the updated list of criteria, only clinical criteria including the most relevant anatomical information that should be detectable in an angiogram are stated. Criteria should be applied for normal procedures and for the typical procedure performed in department, as a tool to assess the level of optimisation of the practice from the point of view of the clinical information content.

Besides clinical criteria, a set of technical parameters to help cardiologists and medical physicists to optimise cardiac procedures in term of image quality and patient dose has been defined.

Finally, a scoring system for an easy and objective evaluation of the angiograms has been proposed and a software tool developed to allow simple and fast evaluation of angiograms.

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