The evolving role of coronary angiography and fluoroscopy in cardiac diagnosis and intervention.

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Source

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Abstract

In the era of drug-eluting stents that have dramatically reduced the re-stenosis rate, and in the context of the development of emerging modalities like magnetic resonance imaging (MRI) and multislice computed tomography that allow precise and non-invasive diagnosis, it becomes important to question whether and how fluoroscopic-based evaluation of cardiac structure and function shall evolve. Indeed, this widely used technique is also known for its invasiveness, risk of ionising radiation effects, and projection imaging limitations. In order to answer this question it is important to understand the technological advances under development for fluoroscopy and link them with the unmet clinical needs of today in the field of both diagnostic and interventional coronary procedures. It can then be understood how fluoroscopic-based technologies can meet these needs. This discussion shall review the emerging technologies available in the cath lab and, in doing so, portray a concept for the next generation catheterisation laboratory.