

5. The heart and blood vessels examination by using invasive and non-invasive coronary angiography

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Cardiovascular diseases (CADs) are a severe public health problem. Their incidence and mortality have a rising trend in the Slovak Republic and, as well as, all over the world. The increasing incidence of CADs leads to an increased number of invasive and non-invasive coronary angiography examination. While non-invasive CT coronary angiography (CCTA) is recommended for patients with low and moderate clinical probability, the invasive coronary angiography (ICA) is recommended for patients with a high clinical probability. Despite of this recommendation, the ICA is not realised, in clinical practise, only in patients with a high clinical probability, what leads to unjustified increase of patients` cumulative dose, as well as, interventional cardiologists who perform the procedure. Whereas both examination methods use ionizing radiation, the aim of the study this project is to determine the radiation exposure of patients who undergo CCTA or ICA procedures. The second aim of the study is to compare both diagnostic methods on the basis of radiation protection and management of patient.