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PAPER TITLE DOSES TO PATIENTS IN INTERVENTIONAL RADIOLOGY

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ABSTRACT (See instructions overleaf)

Interventional and therapeutic procedures are becoming an important part of today's radiological practice. Although these procedures do not contribute significantly to the total number of X-ray examinations performed annually in Poland (below 1% of 21.4 million) they should receive particular attention as they can result in high doses as well to patient as to staff. One of the most frequently carried out interventional radiology procedure in Poland are angiographies (with possibility of additional vessel therapy). This paper presents results of patient dose evaluation for angiography of heart (coronarography), brain angiography and renal arteries catheterization. The importance of technical features of X-ray equipment is underlined. The study was performed in three hospitals, using devices made by Siemens: two of these were Polydoros (with pulsed generators), and the third - the oldest one - was Angiotron CMP (with constant potential, conventional generator). Entrance surface doses to patients were measured using thermoluminescence dosimeters, which were placed directly on the patient skin. Absorbed doses to patients were computed using Monte Carlo simulation programme (own author's code). The results allow to see an influence of generator type and fluoroscopy dose-rate on the value of effective dose to patients.