

EFFECTS OF RADIOLOGISTS' SKILL AND EXPERIENCE ON PATIENT DOSES
IN INTERVENTIONAL EXAMINATIONS

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In this study, effects of radiologists skill and experience on patient doses were investigated for the diagnostic interventional examinations of cerebral and lower extremities for a total of 60 patients. Dose-area-product (DAP) and entrance surface doses (ESD) of two groups of patients, one examined by a number of junior radiologists and one by a senior radiologist have been measured. All the equipment parameters effecting radiation doses, such as field of view, beam collimation and irradiation geometry, exposure conditions were continuously recorded during the course of examinations. In addition to this observations DAP / ESD ratios were taken as an indication of beam collimation. Radiation doses related with fluoroscopy times and number of radiographic frames for each FOV was compared for these two groups.

Main dose reductions were noticed for the cerebral examinations carried out by the senior radiologist due to the use of shorter fluoroscopy times together with the beam collimation. However in case of lower extremity examinations higher ESDs were noticed for the patients examined by senior radiologist group. This was due to the increased output of the automatic brightness control since the bony structures were the major organs left within the exposed area with the tight collimation.

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