# Dose Distribution in the Human Body in General Radiography using Monte Carlo Simulation

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The exposure dose to the patient is evaluated using the patient's skin dose. On the other hand, the effective dose must be evaluated by the absorbed dose of each internal organ. Thus, the dose distribution in the human body phantom was analyzed using Monte Carlo simulation (EGS4), and the usefulness was studied. First, a Mix-DP phantom was used, and four points in the depth direction in the field center were measured using TLD. The same geometries were made, and the absorbed doses were calculated using EGS4. This was compared with the EGS4 simulation and the measurement. Next, the absorbed doses at three fields (in the Mix-DP phantom, the verge region and the external region of the exposure field) were calculated using EGS4. The difference between measurement by TLD and calculation by EGS4 was within the coefficient of variation.