

ABSTRACT

Chest radiography is one of the most frequently repeated diagnostic procedures in radiology departments. Therefore, optimization of the radiation dose received by the patient is essential. One such optimization measure is the use of additional filters. This study aims to analyze the effect of various additional filters on the estimated radiation dose received by patients during chest radiographic examinations. The filter combinations utilized were 0 mmAl, 0.1 mmCu + 1 mmAl, 0.2 mmCu + 1 mmAl, and 2 mmAl. The results demonstrated that the use of a 0.2 mmCu + 1 mmAl filter yielded the lowest estimated radiation dose for each variation of the exposure factors used, specifically 0.044, 0.089, 0.134, 0.178, and 0.223 mGy for chest radiography.

Keywords : Chest radiography, additional filter, estimated dose