

عنوان مقاله:

Doses Received by Patients during Thorax X-Ray Examinations

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خلاصه مقاله:

Introduction Radiation exposures from diagnostic medical examinations are generally low and are almost always justified by the benefits of accurate diagnosis of possible disease conditions. Therefore, entrance skin dose (ESD), body organ dose (BOD), and effective dose (ED) from adult patients undergoing routine thorax posterior-anterior (PA) and thorax right lateral (RLAT) were estimated in University Hospital, Port Harcourt, Southern Nigeria. **Materials and Methods** Totally, 102 patients were considered in this work. Using software packages to carry out ESD, BOD, and ED is a recent resource in dosimetry and is being widely used in hospitals. The software used in this work was CALDose_X 5.0. The software makes use of the technical exposure parameters and the tube output of the X-ray machine. **Results** The estimated ESD median values were 0.96 and 1.85 mGy for thorax posterior anterior (PA) and right lateral (RLAT), respectively. The highest BOD was in the adrenals (270 μ Gy) for thorax PA and Liver (263 μ Gy) for thorax RLAT. Similarly, ED for thorax PA and RLAT examination were 0.068 and 0.107 mGy, respectively. **Conclusion** It could be observed that examinations that imparted the highest ESD were thorax PA when compared with the established dose level. Therefore, these results call for quality assurance program (QAP) in diagnostic X-ray units in Nigeria hospitals.

کلمات کلیدی:

Entrance Skin Dose, Effective Dose, Radiography

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