

## PET/CT Patient Dosage Assay

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**Abstract :** A Positron Emission Tomography (PET) is a radioisotope imaging technique that illustrates the organs and the metabolisms of the human body. This technique is based on the simultaneous detection of 511 keV annihilation photons, annihilated as a result of electrons annihilating positrons that radiate from positron-emitting radioisotopes that enter biological active molecules in the body. This study was conducted on ten patients in an effort to conduct patient-related experimental studies. Dosage monitoring for the bladder, which was the organ that received the highest dose during PET applications, was conducted for 24 hours. Assessment based on measuring urination activities after injecting patients was also a part of this study. The MIRD method was used to conduct dosage calculations for results obtained from experimental studies. Results obtained experimentally and theoretically were assessed comparatively.

**Keywords :** PET/CT, TLD, MIRD, dose measurement, patient doses

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