

## Abstract

The study was conducted from April to September in Tumor Therapy and Cancer Research Center (TTCRC) in Shendi- River Nile State to assessment of staff radiation doses during application of radioactive iodine. The study included two nurses and two physicists.

The individual measuring device (EPD) was used for assessment of the radiation dose of the nurses and physicists. Where the study found that the average annual radiation dose received to the nurses is  $35.88\mu\text{Sv}$  which is less than the average annual radiation dose received to the physicists is  $172.48\mu\text{Sv}$ . The study showed that the radiation dose received by the nurses or physicists is less than the annual dose  $20\text{ mSv}$ , which established by ICRP and IAEA. The radiation dose received for the nurses in this study is less than the radiation dose received to the nurses who conducted by EUR J NuclMed Where the measurement were  $80\mu\text{Sv}$ . It has be noted that the highest radiation dose received to the physicist comes from giving the radioactive capsule to the patient. Also the study found that the radiation dose received by the nurses is closed at all time due to the nature of their work.