

## สำรวจปริมาณรังสีในหน่วยงานเวชศาสตร์นิวเคลียร์

Radiation Dose Survey in Nuclear Medicine Department

ช่วงเวลาดำเนินการ ปี พ.ศ. 2562

ผู้รับผิดชอบ ดร. วิฑิต ฝั่งกัน

ตำแหน่ง รักษาการผู้เชี่ยวชาญเฉพาะด้านการประเมินค่ากัมมันตภาพรังสี

Email: vithit.p@oap.go.th

### รายละเอียดสรุป

The objective of this study is to measure the amount of radiation emitted from radioactive substances and the body of the patient into the environment. This might harm workers and individuals who travel through the nuclear medicine department to receive such radiation. The radiation dose was measured by placing OSL dosimeter on the walls of each room located in nuclear medicine area. The results showed that the radiation dose was in the range of 0.6-7.33 mSv/y. PET/CT Scan examination room which is classified as the controlled area had the highest radiation dose of 510  $\mu$ Sv/month. The supervised area with highest radiation value is the patient room that emits the radiation dose of 610  $\mu$ Sv/month. The working area that is not a radiation operation area, i.e., the waiting area has the dose rate of 450  $\mu$ Sv/month. The results showed that the radiation dose in general public area have exceeded the radiation safety limit of 1 mSv/y. For radiation workers, the radiation dose is within the radiation safety limit of 20 mSv/y according to the recommendations of the International Commission on Radiological Protection (ICRP).

