

INTISARI

Telah dilakukan pengukuran dan penghitungan laju dosis peluruhan radionuklida Co-60, penghitungan waktu penyinaran radioterapi dan penentuan hubungan antara waktu penyinaran radioterapi dengan laju dosis radionuklida Co-60.

Pengukuran laju dosis radionuklida Co-60 pada pesawat teleterapi Co-60 dengan alat ukur dosimeter Farmer dan pantom air, sedang penghitungan laju dosis dengan menggunakan persamaan $\dot{D}_t = \dot{D}_0 e^{-\lambda t}$. Penghitungan waktu penyinaran dilakukan dengan program komputer dan secara manual.

Hasil pengukuran dan penghitungan laju dosis peluruhan Co-60 terjadi perbedaan sebesar 0,089%, sedangkan penghitungan waktu penyinaran dengan program komputer dan secara manual terjadi perbedaan sebesar 1,33% sampai 1,62%.



ABSTRACT

The measurement and the calculation to have already done about the dose rate of radionucleid Co-60, the calculation of radiotherapy treatment time and the decision between radiotherapy treatment time and dose rate radionucleid Co-60.

The dose rate measurement of the Co-60 radiotherapy device was done by using measure device Farmer dosimeter and water phantom, while the dose rate calculation was done by using equality formula $\dot{D}_t = \dot{D}_0 e^{-\lambda t}$. The calculation of treatment time was done with computerize and manually.

The result of calculation and measurement of decaying dose rate Co-60 showed the difference for 0,089%, while the calculation of treatment time with computerize and manually showed the difference for 1,33% until 1,62%.

