A SURVEY OF ABSORBED DOSES TO PATIENTS FROM DIAGNOSTIC X RAY PRACTICES IN TWO MAJOR HOSPITALS IN PENANG

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Assistant Vice Chancellor (Research)
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Prof.,

SUBMISSION OF FINAL RESEARCH REPORT : A SURVEY OF ABSORBED DOSES TO PATIENTS FROM DIAGNOSTIC X RAY PRACTICES IN TWO MAJOR HOSPITALS IN PENANG

Referring to the above matter, together herewith 3 (three) copies of final research report for 'A Survey of Absorbed Doses to Patients From Diagnostic X Ray Practices in Two Major *Hospitals in Penang' from a group of researcher of UiTM Pulau Pinang for your record.*

Thank you.

Yours sincerely,

OOI AIK SENG
Project Leader

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ABSTRACT

In this study, entrance surface doses (ESDs) were measured for the most common types of x-ray procedures, such as chest PA, lumber spine AP, lumber spine lateral, skull AP, skull lateral and pelvis AP in two major hospitals of Penang, one of the most populated states in Malaysia. A total of 74 data were collected from 59 patients participated in this study. The age of the patients ranged from 17 to 72 years old while the weight and height of these patients ranged from 35.5 kg to 138.2 kg and 145.0 cm to 181.0 cm, respectively. The mean ESDs obtained in this study for chest AP/PA, chest lateral, abdomen AP/PA, abdomen erect, cervical spine AP, cervical spine LAT, lumber spine AP, lumber spine lateral, pelvis AP, skull lateral and skull AP were 0.18, 0.69, 5.01, 2.62, 0.21, 0.42, 5.74, 11.36, 4.83, 1.69 and 1.72 mGy, respectively. In all cases, ESDs measured for the different types of x-ray procedures were found to be lower than the limit set by the International Atomic Energy Agency and other international bodies. Therefore, it is concluded that the x-ray personnel at the two hospitals are highly qualified and the x-ray equipment are well maintained. Consequently, the radiation risk to patients is minimised.