

行政院原子能委員會
委託研究計畫研究報告

X 射線劑量評估研究

Dose Evaluation of Radiation Diagnostic X-ray

計畫編號：952001INER009

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中文摘要

台灣實施醫療曝露品質保證標準，源自因應游離輻射防護法第十七條，目的在於保障全民健康品質。放射診斷之輻射曝露特性是個人接受照射的劑量低、但涉及的群眾數龐大，原子能委員會將之列為持續施行輻防管制的重點項目。本計畫針對乳房 X 射線攝影、電腦斷層掃描、血管攝影及數位式 X 射線造影，制訂劑量標準追溯與量測規範，建立診斷用 X 射線之劑量量測程序、劑量評估方法，最後以最優化成本效益分析法，訂定診斷劑量指引水平，提供主管機關制訂輻防管制法規之參考。本年度已完成乳房 X 射線攝影之部分。

Abstract

The Standards for Medical Exposure Quality Assurance, which was derived from Ionizing Radiation Protection Act, ensures medical radiation qualities of nationals' health. The characteristic of diagnostic x-ray examinations is having lower dose than radiation therapy and nuclear medicine but involving with huge population. The Atomic Energy Council considered it as an important item and made it a lasting radiation protection operation. Based on the above facts, we should establish dose evaluation standard of radiation protection in diagnostic x-ray. Setting up a frame of reference and criterion of dose measurements tracing back to the National Radiation Standard Laboratory is the first step. Next, establishing standard procedures of dose measurements and appropriate dose evaluation methods would be conducted in national survey for diagnostic x-ray. Finally conducted was deriving diagnostic reference level by cost-effective analysis. The study results were helpful to the government institution for drawing up the regulation of radiation protection in diagnostic x-rays. The part of mammographic radiation dose assessment has been completed in this year.