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- [ELECTROMAGNETIC RADIATION](#) (1)
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- **INIS Volume**

- [52](#) (1)

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Overview of Diagnostic Reference Levels in Nigeria

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International Conference on Radiation Safety: Improving Radiation Protection in Practice. Extended Abstracts (Virtual Event)

Abstract

[en] Radiation dose delivered to patients undergoing x-ray examinations are influenced by several factors, and these determinants are responsible for the wide dose variation. A critical step towards harmonization of radiation dose delivered to patient is the establishment of dose reference levels (DRL). Diagnostic reference levels (DRL) helps to indicate dose levels that may be unacceptably high or low in order to adopt possible dose reduction strategies that will not compromise the required level of image quality. Radiation regulatory bodies adopted and recommended the use of DRL globally. Consequently, several nations of the world have

established and adopted the usage of national dose reference levels (DRL) in their countries. Such countries develop their own DRL in order to achieve optimal image quality with minimum radiation exposure to the patient. In addition, diagnostic standards are enforced, governed and reviewed periodically in accordance with changes in clinical practice and equipment. Contrarily, Nigeria is yet to develop its own national DRL. According to World Health Organization (WHO) using DRL as a reference and working within these levels will reduce variability, promote good practice and enhance radiation protection. Establishment of national DRLs in a big country like Nigeria might be complex due to large area of coverage. However, regional DRLs within the country can be harmonized for adoption and subsequently upgrading the process to achieve the desired goal. Hence, the goal of this study is to propose a model for the establishment and adoption of national DRL for routine x-ray examinations in Nigeria.

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