



**DEPARTMENT OF HEALTH**  
**DIRECTORATE: RADIATION CONTROL**



**POLICY ON THE REQUEST FOR MEDICAL X-RAY EXAMINATIONS**

**Preamble**

Medical imaging has led to improvements in the diagnosis and treatment of numerous medical conditions in children and adults. The use of medical X-ray equipment is restricted by regulation to professionals registered with the HPCSA and appropriately trained in those aspects of imaging and safety relevant to their clinical role in order to limit overexposures caused by human error.

**Optimizing the use of Medical X-rays**

The role of the Radiation Control Directorate is to licence all ionizing radiation equipment in South Africa. The Professional Board for Radiography and Clinical Technology has as its founding objective and mandate, to protect the public and guide the professionals. The two have jointly approved the following guidelines on request for Medical X-rays.

Healthcare practitioners making the request for medical x-rays must take the following principles into consideration:

- I. **Justification:** The imaging procedure should be judged to do more good (e.g., diagnostic efficacy of the images) than harm (e.g., detriment associated with radiation induced cancer or tissue effects) to the individual patient. Therefore, all examinations using ionizing radiation should be performed only when necessary to answer a medical question, treat a disease, or guide a procedure.
  
- II. **Optimization:** X-ray examinations should use techniques that are adjusted to administer the lowest radiation dose that yields an image quality adequate for diagnosis or intervention (i.e., radiation doses should be "As Low as Reasonably Achievable" (ALARA)<sup>1</sup>.

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<sup>1</sup> ICRP, 2013. *Radiological protection in paediatric diagnostic and interventional radiology.* ICRP Publication 121. Ann. ICRP 42(2).'

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## Examination Optimization

While the healthcare practitioner making the request has the primary responsibility for justification and the imaging practitioners have the primary responsibility for examination optimization, effective communication between the healthcare practitioners and imaging practitioners is essential to help ensure that the patient receives an appropriate examination at an optimal radiation dose.

## Keeping of accurate records

In line with protecting the patients, staff and members of the public from unnecessary exposure to x-ray radiation, Healthcare Professionals are required by law to keep and maintain accurate and complete medical records. These records include images produced from the use of medical x-rays.

Consults Ethical Booklet of Keeping Patients' records.

**“Appropriately trained and registered Healthcare Professional”** means Any appropriately trained and registered health professional other than a Dentist or Medical Practitioner e.g. physiotherapist, primary health care nursing staff / occupational health and safety nursing staff. Professional must have undergone an education and training program at an institution that has been accredited by the HPCSA or any other professional council like SA Nursing Council (SANC).

**“Good and sufficient grounds** relates to the fact that the professional making the request shall have performed a clinical examination on the patient because he/she has been educated and trained in doing so”.

**“Radiation Control Directorate”** means a Directorate of the National Department of Health responsible for the licensing of all Ionizing Radiation equipment.

**“Act”** means the Health Professions Act, 1974 (Act No. 56 of 1974)

**“Board”** means the Professional Board for Radiography and Clinical Technology established in terms of section 15 of the Act

**“Dentist”** means a person registered as such under the Act

**“Medical Practitioner”** means a person registered as such under the Act

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## GUIDELINES FOR MAKING REQUEST FOR MEDICAL X-RAYS

1. All requests must be in writing and signed by the person requesting the examination(s).
2. The clinical indication for the examination(s) must be indicated.
3. X-ray examinations may only be requested by:
  - 3.1 A Medical Practitioner
  - 3.2 A Dentist; or
  - 3.3 Any health care professional as defined in the National Health Act, 2003 (Act No. 61 of 2003) and as clarified above.
4. A radiographer in his/her professional capacity may refuse or accede to the request (par 3.3 above) provided that **good and sufficient grounds** exist for his/her decision.
5. Should the radiographer question the qualifications and competency of the professional making the request, or the possibility of an unsubstantiated request, for example, clinical history indicated does not justify or necessitate the performance of the x-ray examination, the radiographer may refuse to perform the examinations.
6. Any person who contravenes the provisions of this policy and the ethical rules in terms of requesting x-ray examinations must be reported to the Legal Department of the HPCSA or SANC (as the case may be) to be dealt with in terms of the professional conduct provisions.

*This policy has been endorsed by the Professional Board for Radiography and Clinical Technology of the HPCSA. It is important that the policy be read with the guidelines as provided by the Board.*



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