

12 September 2022

GUIDELINE ON REQUESTS FOR MEDICAL X-RAY EXAMINATIONS

To guide the relevant professionals involved in the decision to subject patients to medical X-Rays to make informed and correct requests for such examinations, thereby protecting the patients, staff and public from unnecessary exposure to ionizing radiation.

Document History

Final Version	Reason for Amendment	Effective Date
0	First issue and published for implementation	January 2016
1	<ul style="list-style-type: none">- Content structured on the latest SAHPRA Guideline Template- A unique document number SAHPGL-RDN-XR-18 allocated to this Guideline	September 2022

DR BOITUMELO SEMETE-MAKOKOTLELA
CHIEF EXECUTIVE OFFICER

Contents

Document History.....	1
Glossary	3
1. INTRODUCTION	4
1.1 Purpose.....	4
1.2 Scope	4
2. LEGAL PROVISION	4
3. REQUEST FOR MEDICAL X-RAY EXAMINATIONS.....	4
3.1 Guidelines for Requests.....	4
3.2 Optimizing the use of Medical X-Rays	5
4. REFERENCES.....	6
5. VALIDITY	6

Glossary

Abbreviation/ Term	Meaning
Act 15	Hazardous Substance act 15 of 1973 (Act no. 15 of 1973)
Act 56	The Health Professions Act, 1974 (Act No. 56 of 1974)
ALARA	As low as reasonably achievable
Board	The Professional Board for Radiography and Clinical Technology established in terms of section 15 of the Act
Dentist	Person registered as such under the Act
Good and sufficient grounds	relate 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".
Medical Practitioner	Person registered as such under the Act
Radiation Control	means a unit of SAHPRA responsible for the licensing of all Ionizing Radiation equipment.
HPCSA	Health Professionals Council of South Africa
SAHPRA	South African Health Product Regulatory Authority
SANC	South African Council of Nurses

1. INTRODUCTION

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. The role of the SAHPRA Radiation Control is to license 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.

1.1 Purpose

To guide the relevant professionals involved in the decision to subject patients to medical X-Rays to make informed and correct requests for such examinations, thereby protecting the patients, staff and public from unnecessary exposure to ionizing radiation.

1.2 Scope

“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).

2. LEGAL PROVISION

The SAHPRA Radiation control regulates ionizing devices as promulgated by the hazardous Substances 15 of 1973 with its related regulations. The health professional council of south Africa prescribes the scope of healthcare professional as mandated by the Health Professions Act, 1974 (Act No. 56 of 1974).

3. REQUEST FOR MEDICAL X-RAY EXAMINATIONS

3.1 Guidelines for Requests

3.1.1 All requests must be in writing and signed by the person requesting the examination(s).

3.1.2 The clinical indication for the examination(s) must be indicated.

3.1.3 X-Ray examinations may only be requested by:

3.1.3.1 A Medical Practitioner

- 3.1.3.2 A Dentist; or
- 3.1.3.3 Any health care professional as defined in the National Health Act, 2003 (Act No. 61 of 2003) and as clarified above.
- 3.1.4 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.
- 3.1.5 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.
- 3.1.6 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

3.2 Optimizing the use of Medical X-Rays

Healthcare practitioners making the request for medical X-Rays must take the following principles into consideration:

3.2.1 Justification

The imaging procedure should be judged to do better (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.

3.2.2 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).

3.2.3 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.

3.2.4 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.

NB. Consults the Ethical Booklet of Keeping Patient's records.

4. REFERENCES

The following related documents are referenced:

- 4.1 ICRP, 2013. Radiological protection in Paediatric Diagnostic and Interventional Radiology. ICRP Publication 121. Ann. ICRP 42(2).'
- 4.2 Health Professions Council of South Africa; Guidelines for Good Practice In The Health Care Professions General Ethical Guidelines For The Health Care Profession, September 2016.
- 4.3 Act 15, Hazardous Substance act 15 of 1973 (Act no. 15 of 1973). www.sahpra.org.za.
- 4.4 Act 56, The Health Professions Act, 1974 (Act No. 56 of 1974), www.hpcsa.co.za.

5. VALIDITY

This guideline is valid for a period of 5 years from the effective date of revision and replaces the old Policy on The Request for Medical X-Ray Examination, revised January 2016. It will be reviewed on this timeframe or as and when required.