



SE10

DIAGNOSTIC IMAGING SERVICES

The healthcare facility uses safe and well serviced machines for ultrasound and X-ray services. Skilled staff are guided in appropriate use of the machines and in formulating their findings, which facilitates correct interpretation of results by the requester. For the X-ray department, staff strictly follow the safety manual regarding radiation safety for patients, themselves or other staff and the environment. (e.g. infrastructural requirements, use of PPE, radiation batch, waste management).

The SafeCare standards cover the full range of clinical services and management functions for healthcare facilities in 13 Service Elements. These Service Elements contain a number of standards that relate to specific services or functions. The rationale of each standard is explained by the standard intent and gives you an idea what the standard really entails.

Each standard contains measurable elements, also called criteria. Measurable elements are related to specific processes, assets or documents (e.g. process for triage, resuscitation equipment or a job description for the lab manager). Compliance to each measurable element is assessed, and scores awarded are either Fully Compliant (FC), Partially Compliant (PC), Non-Compliant (NC) or Not Applicable (NA). The combined scores of the underlying measurable elements reflect the level of compliance to the whole standard.

10.1 ULTRASOUND

10.1.1 Staff and referral arrangements are adequate for safe provision of Ultrasound (US) services.

STANDARD INTENT:

The healthcare facility identifies those staff members who may perform ultrasound procedures and those who may interpret and report the findings. These staff members have appropriate and adequate training, experience and skills, and are oriented to their work. There are enough staff members to provide the necessary staffing during all hours of operation and for emergencies and/or referral.

The healthcare facility is able to identify and contact emergency referral sources, when the need for such services arises.

MEASURABLE ELEMENTS:

- 10.1.1.1 US procedures are performed only by individuals with proper and specific training.

- 10.1.1.2 US services are available for the level of care provided at the healthcare facility.
- 10.1.1.3 There is an adequate number of qualified/trained staff to meet the patient needs.
- 10.1.1.4 Referral US services are available, also for services to be provided outside normal operating hours.

10.1.2 Ultrasound system and supplies are adequate for safe Ultrasound (US) service delivery.

STANDARD INTENT:

In order to provide safe and reliable ultrasound services, the required infrastructure and systems needs to be available and maintained. Ultrasound personnel work to ensure that all equipment functions at acceptable levels and in a manner that is safe for the operator(s). A diagnostic imaging management program provides for:

- *Selecting and acquiring equipment and supplies;*
- *Instructions (SOP) for the correct operation of the equipment;*
- *Monitoring equipment use through inspection, testing, calibration and maintenance.*

MEASURABLE ELEMENTS:

- 10.1.2.1 US system (and supplies) is available and is sufficient to meet the patient needs.
- 10.1.2.2 There is an SOP or checklist to guide staff in correctly operating the US equipment.
- 10.1.2.3 US equipment is maintained in accordance with manufacturer's instructions.
- 10.1.2.4 US equipment is tested and calibrated in accordance with manufacturer's instructions.

10.1.3 Staff is guided for safe and efficient Ultrasound (US) service delivery.

STANDARD INTENT:

The quality and performance of ultrasound services is dependent on adequate operational guidance. Procedural guidance should at least be available for:

- *Requirements for a request form;*
- *Requirements for operational processes (including safety);*
- *Requirements for reporting results;*
- *Requirements for filing results.*

MEASURABLE ELEMENTS:

- 10.1.3.1** US requests contain the required information.
- 10.1.3.2** There is an SOP or checklist to guide staff in recording and reporting of US results.
- 10.1.3.3** An US safety manual (describing potential safety risks and hazards) is available.
- 10.1.3.4** Results of US findings are included in patient files and contain a clear conclusion.

**10.2
X-RAY**

- 10.2.1** **Staff and referral arrangements are adequate for safe provision of X-ray services.**

STANDARD INTENT:

Country specific requirements determine for which level of healthcare facility the provision of X-ray services is mandatory (e.g. district/tertiary/teaching hospital). In addition, in-country safety, staffing and license requirements regulate safe X-ray services if lower level healthcare facilities are offering the service. The organization identifies those staff members, who may perform procedures and those who may interpret X-ray films and report the findings. These staff members have appropriate and adequate training, experience and skills, and are oriented to their work. Radiographers are given assignments consistent with their training and experience. There are enough staff members to provide the necessary coverage during all hours of operation and for emergencies and/or referral. The healthcare facility is able to identify and contact emergency referral sources, when the need for such services arises.

MEASURABLE ELEMENTS:

- 10.2.1.1** X-ray services are available for the level of care provided at the healthcare facility.

- 10.2.1.2 The X-ray department is managed by a qualified individual with specific training.
- 10.2.1.3 There is an adequate number of qualified/trained staff to meet the patient needs.
- 10.2.1.4 Referral X-ray services are available, also for services to be provided outside normal operating hours.

10.2.2 Infrastructure and equipment is adequate for safe X-ray service delivery.

STANDARD INTENT:

In order to provide safe and reliable X-ray services, the required infrastructure and equipment needs to be available and maintained. X-ray personnel work to ensure that all equipment functions at acceptable levels and in a manner that is safe for the operator(s). The layout and available infrastructural precautions enable safe operations. A radiology equipment management program provides for:

- *Selecting and acquiring equipment and supplies;*
- *Instructions (SOP) for the correct operation of the equipment;*
- *Monitoring equipment use through inspection, testing, calibration and maintenance.*

MEASURABLE ELEMENTS:

- 10.2.2.1 X-ray equipment is available and sufficient to meet the patient needs.
- 10.2.2.2 The layout and available infrastructural safety precautions enable safe service provision.
- 10.2.2.3 X-ray equipment is maintained in accordance with manufacturer's instructions.
- 10.2.2.4 X-ray equipment is tested and calibrated in accordance with manufacturer's instructions.

10.2.3 X-Ray supplies are adequate for safe and efficient service delivery.

STANDARD INTENT:

In order to provide the projected radiology services, essential supplies have to be available. The healthcare facility has to identify the quantities

and products (e.g. such as x-ray films) necessary to provide a reliable radiology service to its patients. There is an effective process for ordering reagents and other supplies and all supplies are stored, labelled and dispensed in accordance with defined procedures. Periodic evaluation of (expiry of) reagents needs to be performed and logged in order to ensure that the products provide accurate and precise results.

MEASURABLE ELEMENTS:

- 10.2.3.1** Adequate supplies (films, other reagents) are available to provide regular X-ray services.
- 10.2.3.2** All reagents and solutions are properly stored and accurately labelled.
- 10.2.3.3** Expiry checks are performed on X-ray supplies and results recorded.
- 10.2.3.4** The healthcare facility has prepared a list with essential supplies for X-ray services.

10.2.4 Radiation safety measures are in place.

STANDARD INTENT:

The healthcare facility has an active radiation safety program that includes all components of the healthcare facility radiology services. The radiation safety program reflects the risks and hazards encountered. The program addresses safety practices and prevention measures for radiology staff, other staff and patients. The program is coordinated within the safety management program of the healthcare facility.

The radiation safety management program includes:

- *Compliance with applicable standards, laws, and regulations;*
- *Compliance with standards addressing healthcare facility management and infection control programs;*
- *Availability of safety protective devices appropriate to the practices and hazards encountered;*
- *A radiation safety manual (describing potential safety risks and hazards, including waste).*

A safety manual guides staff in daily routine practices, and can also be used for orientation purposes for new radiology staff.

MEASURABLE ELEMENTS:

- 10.2.4.1** A copy of the local rules related to the Ionizing Radiation Regulations is available and these rules are followed.
- 10.2.4.2** Appropriate Personal Protective Equipment (PPE) is available for staff to reduce safety risks (e.g. lead aprons, radiation badges).
- 10.2.4.3** A radiation safety manual (describing potential safety risks and hazards, including waste disposal) is available.
- 10.2.4.4** A copy of the most recent radiation safety report is available.

10.2.5 Staff is guided for safe and efficient service delivery.

STANDARD INTENT:

The quality and performance of X-ray services is dependent on adequate operational guidance. The healthcare facility needs to have the relevant standard operation procedures (SOPs) in place in order to provide proper guidance and to orient all new X-ray staff on it. The X-ray department performs periodic quality and safety control checks and keeps records of outcomes. These are used for corrective and ultimately preventive actions in order to enable continuous quality improvement of the X-ray service provided.

MEASURABLE ELEMENTS:

- 10.2.5.1** There is an SOP or checklist to guide staff in correctly operating the X-ray equipment.
- 10.2.5.2** There is an SOP or checklist for quality and safety controls for the X-ray department and records of results are kept.
- 10.2.5.3** Staff are oriented to all relevant procedures and practices and receive continuous medical education.
- 10.2.5.4** Quality and safety control outcomes are used for corrective and preventive actions.

10.2.6 Reporting, interpretation and storage of X-ray results is performed adequately.

STANDARD INTENT:

The healthcare facility identifies those staff members who may perform X-ray procedures and those who may interpret and report the findings.

The quality and performance of X-ray services is dependent on adequate operational guidance. Procedural guidance should at least be available for:

- *Requirements for a request form;*
- *Requirements for interpretation and reporting of results;*
- *Requirements for filing results;*
- *Requirements for operational processes, including a system to consult with external experts.*

MEASURABLE ELEMENTS:

- 10.2.6.1** X-ray requests contain the required information.
- 10.2.6.2** X-ray films are interpreted by qualified staff and results of findings are included in the patient files.
- 10.2.6.3** X-ray reports contain a clear conclusion.
- 10.2.6.4** The healthcare facility has a system to contact experts in specialized diagnostic imaging areas when needed.