

SQHN STANDARDS REVIEW

RAD.8. DIAGNOSTIC IMAGING

Overview

Multiple imaging modalities may be required due to the complex nature of disease processes with an interdisciplinary team including clinicians, radiographers and support staff all playing critical roles in the delivery of quality healthcare to patients.

Medical imaging and radiology services must be available to meet patients' needs either within the organisation or outside facility. Depending on the scope of the medical imaging services offered by an organisation, it is expected that it meets certain requirements to deliver, quality and safe imaging services.

Radiography includes the integration of scientific knowledge, technical competence and interaction with patients to provide safe and accurate procedures with highest regard to all aspects of patient care.

RAD.8.1. Radiology and Medical Imaging Services are available

Intent

The organisation has a structure for providing medical imaging and radiology services for categories of patients seen to enable healthcare givers make an informed decision about patients' care.

The medical imaging services offered by the organisation or outside sources must ensure compliance to all relevant legislation. Legislative requirements may take precedence over these standards but this does not preclude the organisation pursuing the standard of practice expressed in these standards if they are above the legislative requirements

The organisation should have a written document that describes:

- i. The range and scope of services available
- ii. Working hours;
- iii. Emergency services that are available
- iv. Turnaround time for results.

- v. Quality control programme to ensure that results that are produced are correct and validated

Requirements

RAD.7.2.1.1. The organisation has defined and documented the radiology and diagnostic imaging services available in the organisation. ^(D)

RAD.7.2.1.2. The document includes i-v of the intent

RAD.7.2.1.3. The radiology and diagnostic imaging services comply with applicable laws and regulations that guides the practice and the Lagos State and Nigerian National laws.

RAD.7.2.1.4. The organisation identifies those individuals that must be knowledgeable about the document and this information is made available to them.

RAD.8.2. Management and Responsibilities

Radiology and diagnostic imaging staff have clearly defined roles and responsibilities and the required education, qualifications, and experience to administer and perform the tests and interpret the results.

Intent

Leadership of diagnostic imaging services are under assigned to an individual who has the appropriate documented qualifications, training, expertise, and experience, consistent with applicable laws and regulations. S/he has responsibility for the diagnostic imaging facility and the services provided in the hospital as well as tests performed outside the radiology and diagnostic imaging facility, such as those performed at the point of care or by contracted laboratories.

Responsibilities of the radiology and diagnostic imaging services leader include

- i. developing, implementing, and maintaining policies and procedures
- ii. administering, monitoring, and reviewing all diagnostic imaging services.
- iii. a quality control and safety program
- iv. recommending outside sources of imaging services and monitoring their performance

The hospital identifies the education, training, qualifications, and experience of diagnostic imaging staff members performing and interpreting imaging tests, those who are approved to perform point-of-care screening tests at the bedside, and those who direct or supervise staff who perform testing.

Requirements

RAD.8.2.1 The radiology and diagnostic imaging services throughout the hospital, are under the direction and oversight of one or more qualified individuals with defined roles and responsibilities including i) to iv) in the intent.

RAD.8.2.2 All diagnostic imaging staff have the education, training, and qualifications necessary to administer, perform, and interpret tests.

RAD.8.2.3 Supervisory staff are identified and have the proper qualifications and experience.

RAD.8.2.4. Experts in specialized diagnostic areas are contacted when needed.

RAD.8.2.5 A staffing plan to ensure tests are performed promptly and to provide staffing coverage during all hours of operation and during emergencies is implemented.

RAD.8.3. Point-of-Care Testing

Intent

Point-of-care testing (POCT) is testing performed at sites outside the regular diagnostic imaging environment, usually at or near where care is delivered to the patient.

Oversight and supervision for imaging studies performed in all areas are provided by the individual responsible for managing the diagnostic imaging services or a designee. The hospital must have a clearly defined and well-structured approach to diagnostic imaging POCT to ensure that it is performed safely and correctly and that the results generated are accurate and reliable.

A POCT program includes planning for tests to be performed and identifying the areas of the hospital where they will be performed, identification of staff who will be performing the test(s), and a protocol for reporting abnormal test results, including critical results. All staff performing POCT require training for each modality being performed, along with a competency evaluation to ensure that results are accurate.

Quality control (QC) should be performed for each modality as recommended by the manufacturers e.g. daily or weekly checks. QC testing documentation, and evaluation should be performed within defined specifications recommended by the manufacturer.

A POCT program should be monitored and evaluated to ensure that it is meeting its' objectives by developing and monitoring quality improvement measures, reviews of utilization reports and reviews of quality control and proficiency testing results.

Requirements

RAD.8.3.1 The individual responsible for managing the diagnostic imaging services, or a designee, also has oversight and supervisory responsibilities for the POCT program.

RAD.8.3.2 There are policies and procedures guiding POCT.

RAD.8.3.3 The POCT program includes a defined process for reporting abnormal test results, including reporting critical results.

RAD.8.3.4 POCT testing results are documented in the patient's medical record and include date and time of the testing, the test result(s), the name of the person performing the study, the ordering physician (as appropriate) and any action taken to notify the most responsible physician of the result(s).

RAD.8.3.5 Infection control measures are established and implemented to ensure safe use of devices

RAD.8.3.6 The POCT program includes quality control performance, documentation, and evaluation.

RAD.8.3.7 The POCT program is monitored and evaluated and included in quality improvement activities.

RAD.8.3.8 All healthcare professional performing POCT must have the required qualifications, must be trained and successfully demonstrate competency for each device or manual procedure.

RAD.8.4. Safety

Intent

The organisation shall conduct all diagnostic imaging and radiology services in a manner which ensures the safety of patients, staff, visitors and the environment. The safety

programme of the organisation must address potential risks or hazards that maybe encountered during service delivery.

As a minimum all applicable regulatory requirements to deliver safe medical imaging and radiology services must be met. The organisation must demonstrate through its policies, procedures and radiation safety protocols that it complies with the ALARA principles. The safety programme of the unit shall include;

- i. Safety Manual that includes policies and procedures on prevention and corrective measures for safety issues
- ii. Record of compliance to laws and regulations of Nigerian Nuclear Regulatory authority and /or Local, State and Federal laws.
- iii. Orientation and re-training of the Staff on the safety policies and procedures
- iv. Management of Hazardous agents
- v. Safe use and handling of equipment
- vi. Infection prevention and control practices

Requirements:

RAD.8.4.1. The Radiology and medical imaging safety programme is incorporated into the organisation's safety programme.

RAD.8.4.2. The programme includes i-vi of the intent.

RAD.8.4.3. There is a documented process that staff of the Radiology unit has been trained on the safe handling, use and maintenance of imaging equipment.

RAD.8.4.4. An individual has been identified to be the radiation safety officer and shall be responsible for monitoring compliance to the safety programme.

RAD.8.5 Facilities

Intent

Radiology and diagnostic imaging facilities are adequate to provide a safe and effective imaging service. Service managers need to work closely with facility managers to ensure that facilities are available for the provision of the required services. Service managers must keep facility managers informed about inadequate facilities and the current state of facilities.

The diagnostic imaging should have sufficient space and appropriate work surfaces, power, water and ventilation. Separate handwashing facilities are required.

Requirements

RAD 8.5.1. The diagnostic imaging is a separate designated area with limited access to non-authorized personnel.

RAD 8.5.2. The size of the diagnostic imaging rooms are appropriate to the services provided.

RAD 8.5.3. The walls, ceilings and floors are easy to clean, impermeable to liquids and resistant to chemicals.

RAD 8.5.4. Each diagnostic imaging compartment is adequately ventilated, and the room temperature is recorded and maintained.

RAD 8.5.5. Handwashing facilities with running water, soap and paper towels are provided in each diagnostic imaging room as appropriate.

RAD 8.5.6. Separate facilities are provided for personnel to store personal items.

RAD 8.5.7. Separate rest area where personnel can eat, and drink are provided.

RAD 8.6. Diagnostic Imaging Equipment

Intent

It is essential that the required equipment is available to provide effective diagnostic imaging services. Diagnostic imaging staff work to ensure that all equipment, including, function at acceptable levels and in a manner that is safe to the operator(s). The diagnostic imaging develops and implements a program to provide and manage equipment including those used for point-of-care testing

The diagnostic imaging equipment management program is documented and includes

- i. diagnostic imaging equipment and medical equipment selection and acquisition
- ii. identification and taking inventory of diagnostic imaging equipment and medical equipment
- iii. assessment of diagnostic imaging equipment use through inspection, testing, calibration, and maintenance according to manufacturers' instructions
- iv. monitoring and acting on diagnostic imaging equipment hazard notices, recalls, reportable incidents, problems, and failure

Requirements

RAD 8.6.1. Diagnostic imaging develops and implements a documented equipment management program which includes i) to iv) in the intent

RAD 8.6.2. There is a documented inventory of all diagnostic imaging equipment.

RAD 8.6.3. Diagnostic imaging equipment is inspected and tested on acquisition and according to the manufacturers' recommendations and the inspections are documented.

RAD 8.6.4. Diagnostic imaging develops and implements a calibration and planned preventive maintenance schedule according to manufacturers' recommendations, and the calibration and maintenance are documented.

RAD 8.6.5. The hospital has a system in place for monitoring and acting on diagnostic imaging equipment hazard notices, recalls, reportable incidents, problems, and failures.

RAD 8.7. Essential Supplies

Intent

The hospital has identified those essential supplies required to provide diagnostic imaging services to its patients and ensures they are available. There is a process to order or secure those supplies. Processes address situations when equipment malfunction or when supplies are not available

All supplies are stored and dispensed according to manufacturers' directives. All equipment and reagents are labelled, stored, and evaluated according to written guidelines to ensure accuracy and precision of results.

Requirements

RAD 8.7.1. Essential supplies are identified and available, and there is a process to address when they are not available.

RAD 8.7.2. All supplies are stored and dispensed according to manufacturers' instructions.

RAD 8.7.3. All supplies are completely and accurately labeled as appropriate.

RAD 8.8. Expected Time Frames for Reporting Results

Intent

The hospital establishes time frames for reporting diagnostic imaging results including for emergencies, after regular hours and weekends. Results from urgent studies, such as those from the emergency department, operating theatres, and intensive care units, are given special attention in the departmental and hospital-wide quality management program.

Time frames for services provided by outside diagnostic imaging services are stipulated in hospital policy or in the contract with the organisation. These are also monitored as part of the quality management program

Requirements

RAD 8.8.1. The hospital establishes the expected report time for imaging results.

RAD 8.8.2. Diagnostic imaging results are reported within a time frame to meet patient needs.

RAD 8.8.3. The hospital measures the timeliness of reporting of urgent/emergency studies.

RAD 8.8.4. The hospital acts on the findings of the measurements

RAD 8.9. Quality Control (QC) and Quality Assurance

Intent

Well-designed quality control and quality assurance systems are essential to providing excellent

Quality control procedures include

- i. validation of the test methods used for accuracy, precision, and reportable range,
- ii. regular surveillance of results and documentation by qualified staff,
- iii. testing of reagents,
- iv. rapid corrective action when a deficiency is identified; and
- v. documentation of results and corrective actions.

Requirements

RAD 8.9.1. The hospital establishes and implements a quality control program for the diagnostic imaging services which include i) to v) in the intent.

RAD 8.9.2. The program includes the validation of test methods.

RAD 8.9.3. Quality control includes regular surveillance and documentation of imaging results.

RAD 8.9.4. The program includes testing of reagents when used.

RAD 8.9.5. The program includes rapid correction and documentation of deficiencies.

RAD 8.9.6. The facility regularly reviews quality control and proficiency testing results from all outside sources of diagnostic imaging services.

Thank you for reading through the Radiology Accreditation standards, the next step will be to review the standards by filling the questionnaire in the link below to assess the standards using the RUMBA principle (Relevant, Understandable, Measurable, Beneficial, Achievable).

<https://forms.gle/grtnGqwJpZWCPJqTA>