ChecklistGuro

Radiology Equipment Maintenance Checklist

General Room Environment

Assessment of the room's physical condition impacting equipment operation and safety.

Room Temperature (°C)

Enter a number...

Room Humidity (%)

Enter a number...

Evidence of Water Leaks?

- [ ] Yes
- [ ] No
- [ ] Unsure

Evidence of Pests?

- [ ] Yes
- [ ] No
- [ ] Unsure

Notes on Room Condition (e.g., dust, cleanliness)

Write something...

Adequate Lighting?

- [ ] Yes
- [ ] No
- [ ] Needs Adjustment

Last Cleaning Date

Enter date...

X-Ray Generator

Inspection and maintenance of the core X-ray generating components.

Generator Output Voltage (kVp)

Enter a number...

Generator Tube Current (mA)

Enter a number...

Exposure Time (mSec/s)

Enter a number...

Heat Sink Temperature (°C)

Enter a number...

Generator Cooling System Status

- [ ] Operational
- [ ] Warning - Reduced Efficiency
- [ ] Fault - Requires Attention

Inverter Status

- [ ] Normal
- [ ] Warning
- [ ] Error

Any unusual noises observed during operation?

Write something...

Date of Last High Voltage Cable Inspection

Enter date...

X-Ray Tube

Focus on the tube condition and its related parameters.

Tube Loading (mA-s)

Enter a number...

Tube Voltage (kV)

Enter a number...

Tube Current (mA)

Enter a number...

Tube Cooling Fan Operation (RPM)

Enter a number...

Tube Condition (Visual Inspection)

- [ ] Excellent
- [ ] Good
- [ ] Fair
- [ ] Poor - Requires Attention

Detailed Notes on Tube Condition (Burn Marks, Discoloration, etc.)

Write something...

Last Tube Replacement Date

Enter date...

Arcing Observed?

- [ ] Yes
- [ ] No

High Voltage System

Safety checks and maintenance of high-voltage components.

High Voltage Output Voltage (kV)

Enter a number...

Leakage Current (µA)

Enter a number...

Insulation Resistance (MΩ)

Enter a number...

High Voltage Cable Condition

- [ ] Excellent
- [ ] Good
- [ ] Fair
- [ ] Poor

Coolant Level (if applicable)

- [ ] Normal
- [ ] Low
- [ ] Empty
- [ ] N/A (Air Cooled)

Observations/Notes on High Voltage System

Write something...

Last HV Transformer Oil Analysis Date (if applicable)

Enter date...

Upload HV System Test Report (if applicable)

Upload File

Image Receptor (Detector)

Maintenance and quality checks of the image capturing device (CR, DR, or DR with AI).

Pixel Value Histogram Peak (LU)

Enter a number...

Pixel Value Histogram Width (LU)

Enter a number...

Signal-to-Noise Ratio (SNR)

Enter a number...

Uniformity Ratio (%)

Enter a number...

Detector Type

- [ ] CR
- [ ] DR (Flat Panel)
- [ ] DR (Curved Panel)
- [ ] DR with AI

Any observed artifacts or issues?

Write something...

Last Calibration Date

Enter date...

Image Receptor Test Results (e.g., MTF curves, linearity)

Upload File

Collimation & Light Field

Verification of correct alignment and functionality for patient positioning and image quality.

Light Field Alignment: Left-Right Deviation (mm)

Enter a number...

Light Field Alignment: Above-Below Deviation (mm)

Enter a number...

Light Field Source Condition

- [ ] Excellent
- [ ] Good
- [ ] Fair
- [ ] Poor
- [ ] Needs Replacement

Collimator Operation: Smoothness of Movement

- [ ] Smooth
- [ ] Slightly Rough
- [ ] Rough
- [ ] Not Operational

Collimator Leaf Alignment

- [ ] Aligned
- [ ] Slightly Misaligned
- [ ] Misaligned – Requires Adjustment
- [ ] Damaged - Requires Repair/Replacement

Any Comments/Observations Regarding Collimation or Light Field?

Write something...

Date of Last Light Field Calibration

Enter date...

Patient Support & Table

Ensuring proper functionality and safety of the patient handling equipment.

Last Table Surface Cleaning

Enter date...

Table Movement Speed (mm/s)

Enter a number...

Table Functionality - Up/Down

- [ ] Functional
- [ ] Requires Repair

Table Functionality - Tilt

- [ ] Functional
- [ ] Requires Repair

Patient Weight Capacity Verified?

- [ ] Yes
- [ ] No

Any observed damage to table surface (cracks, wear)?

Write something...

Table Locking Mechanism Functioning Properly?

- [ ] Yes
- [ ] No

Table Height at lowest setting (mm)

Enter a number...

Table Height at highest setting (mm)

Enter a number...

Technician Signature

Dose Calibration & Quality Assurance

Verifying accurate dose delivery and image quality metrics.

Last Calibration Date

Enter date...

Measured kVp at Nominal mA

Enter a number...

Measured Exposure Time

Enter a number...

Deviation from Nominal kVp (%)

Enter a number...

Deviation from Nominal Exposure Time (%)

Enter a number...

Image Receptor (Detector) QA Result - Spatial Resolution

- [ ] Pass
- [ ] Marginal
- [ ] Fail

Image Receptor (Detector) QA Result - Uniformity

- [ ] Pass
- [ ] Marginal
- [ ] Fail

Comments/Observations regarding Dose Calibration & QA

Write something...

Phantom Image Upload (if applicable)

Upload File

Safety Interlocks & Shielding

Testing and inspection of safety systems to prevent excessive radiation exposure.

Interlock System Test Status

- [ ] Pass
- [ ] Fail
- [ ] Not Performed

Radiation Leakage Measurement (mSv)

Enter a number...

Shielding Integrity

- [ ] Intact
- [ ] Minor Damage
- [ ] Significant Damage

Details of any Shielding Damage (if applicable)

Write something...

Last Shielding Inspection Date

Enter date...

Interlock Tests Performed

- [ ] Entrance/Exit Door Interlock
- [ ] Table Position Interlock
- [ ] Operator Screen Interlock
- [ ] Emergency Stop Function

Notes on Interlock Functionality

Write something...

Electrical and Mechanical Systems

Checking power supply, wiring, motors, and other mechanical components.

Voltage Input (VAC)

Enter a number...

Power Consumption (VA)

Enter a number...

Motor Speed (RPM)

Enter a number...

Grounding Connection Status

- [ ] Secure
- [ ] Loose
- [ ] Corroded

Cooling Fan Operation

- [ ] Normal
- [ ] Noisy
- [ ] Not Operating

Last Lubrication Date (Motors/Bearings)

Enter date...

Detailed Observations/Comments (Electrical/Mechanical)

Write something...

Upload relevant documentation/photos

Upload File