CHECKLIST 7. QUALITY CONTROL FOR IMAGING EQUIPMENT

No.	Component	LC	Example of result / type of evidence
7.1	Are there written policies for specifying, procuring and testing new imaging equipment?		Check the procedure
7.2	Do these policies require certification of all equipment that will be acquired (e.g. 'CE' mark, United States Food and Drug Administration clearance or approval by a national authority)?		Check the procedure
7.3	Are the above policies in line with recommendations made in IAEA / International Electrotechnical Commission / National Electrical Manufacturers Association publications?		Check the procedure
7.4	Is an independent assessment of performance of the actual delivered equipment performed and documented against the specifications of the tender?		Check the procedure
7.5	In the case of γ cameras, have detailed acceptance tests been performed and the most relevant planar performance parameters recorded?		Observation on-site / example records / check the procedure
7.6	In the case of single photon emission computed tomography (SPECT) systems, have detailed acceptance tests been performed and the most relevant tomographic performance parameters recorded?		Observation on-site / example records / check the procedure
7.7	In the case of positron emission tomography (PET) systems, have detailed acceptance tests been performed and the most relevant emission tomographic performance parameters recorded?		Observation on-site / example records / check the procedure

CHECKLIST 7. QUALITY CONTROL FOR IMAGING EQUIPMENT (cont.)

No.	Component	LC	Example of result / type of evidence
7.8	In the case of multimodality equipment, have detailed acceptance tests been performed for all components and the most relevant performance parameters recorded?		Observation on-site / example records / check the procedure
7.9	Are results of acceptance tests and initial performance assessment used to establish baseline reference values for routine quality assurance (QA) / quality control (QC)?		Observation on-site / check the log book / check procedures
7.10	Are written SOPs available on the operation and QA/QC for all imaging equipment in clinical use?		Check procedures
7.11	Are these SOPs in agreement with manufacturer instruction manuals?		Check procedures
7.12	Is there a policy on long term storage of QA/QC results?		Observation on-site / example records / check the procedure
7.13	Is there a regular physical inspection of the hardware including the detector head(s), collimator(s), shielding, etc.?		Observation on-site / example records / check the procedure
7.14	Are the most relevant planar/SPECT parameters regularly checked, reviewed and recorded, including trend analysis: uniformity, spatial resolution, centre of rotation, SPECT performance, as well as other parameters that are considered critical in the internal QA programme?		Observation on-site / example records / check procedures
7.15	Are the most relevant QA/QC procedures for PET systems regularly checked, reviewed and recorded, including trend analysis: daily QC according to manufacturer instructions, detector normalization, two to three dimensional radioactivity concentration calibration, as well as other parameters considered critical in the internal QA programme?		Observation on-site / example records / check procedures

CHECKLIST 7. QUALITY CONTROL FOR IMAGING EQUIPMENT (cont.)

No.	Component	LC	Example of result / type of evidence
7.16	Are the most relevant QA/QC procedures for multimodality imaging systems regularly checked, reviewed — including trend analysis — and recorded: all parameters listed in 7.14 or 7.15, computed tomography (CT) parameters (CT number, image uniformity, image noise, image artefacts, high contrast modulation), CT radiation dose, image registration and other parameters that are considered critical in the internal QA programme?		Observation on-site / example records / check procedures
7.17	Do QA/QC SOPs include specific instructions on corrective actions in the case of non-conforming results?		Check SOPs

Note: LC: level of conformance (range 0–4). 0: absent or inappropriate; 1: planned or approximate; 2: partial conformance or partial implementation; 3: near full conformance or near full implementation; 4: full conformance or full implementation.