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**Clinical
Radiology**

The Royal College of Radiologists

College review of radiology services

Fourth edition

Faculty of Clinical Radiology

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Foreword

Patients have a right to expect that a modern healthcare system will have established frameworks to ensure the quality of healthcare provision. The General Medical Council (GMC) has published advice on good medical practice that informs the responsibilities of doctors in the maintenance of the quality of the care that they deliver to patients.¹ The Government has enshrined this duty of care within the processes of clinical governance. The Royal College of Radiologists (RCR) has a responsibility to promote high-quality patient care in clinical radiology. The RCR publishes advice to its members and Fellows, including the *Good Practice guide for clinical radiologists, Second edition*² and a number of standards for good practice (www.rcr.ac.uk/standards), and has established robust mechanisms for developing and maintaining standards. Included among these are the Professional Support and Standards Board, the Audit Committee and the Imaging Services Accreditation Scheme (ISAS). The RCR assures the quality of training of future radiologists through the Joint Quality Assurance Committee.

In spite of the commitment of individuals, the processes of appraisal and revalidation, and embedded clinical governance frameworks within trusts or equivalent bodies in the devolved countries, and the establishment and review of standards by the RCR, there will remain occasions when things go wrong. There may be individual failings and in recognising this, the National Clinical Assessment Service (NCAS) was established in England to investigate situations where the performance of a doctor gives cause for concern. In some circumstances, there is a clear need for disciplinary procedures or referral to the GMC. Similarly, the Care Quality Commission (CQC) was established to ensure the quality of care throughout entire institutions and to advise on systems failures and management deficiencies. The Welsh Assembly Government (WAG) established the Healthcare Inspectorate Wales (HIW), which has taken on some of the functions of the CQC and NCAS. In Northern Ireland, the Regulation and Quality Improvement Authority (RQIA) was established to regulate and monitor the quality of services delivered by the Department of Health, Social Services and Public Safety (DHSSPS). In Scotland, this is covered by Healthcare Improvement Scotland.

The Service Review Committee of the RCR was established in 2000. At the time, the RCR identified a clear need to provide a process of review of departments of clinical radiology on the basis of the recognition that the poorly performing radiologist is often part of a department that is itself in difficulty and that poor performance may often reflect poor support, overwhelming workload or inadequate facilities. Under the guidance of members of the Service Review Committee, the process of service review has been refined and many service reviews of different types have been completed. In the years since the Service Review Committee's inception, some of the reasons for service review have changed and the workings of the committee and its review teams have been adapted. The current revision of this publication defines the agreed indications for service reviews, reflecting the combined experience of the Service Review Committee in modifying the process of review. It will serve to guide review teams, inform trust management of the nature of service that is available and assure Fellows and members that there is a mature process for the investigation of challenged departments. The Service Review Committee has also revised its separate background briefing notes on the processes it follows in conducting a service review, which can be accessed from the RCR's website.

This document replaces previous College advice given in the *College Review of Radiology Services* (third edition, 2009), which is now withdrawn.

The College is indebted to Dr Jonathan Glover (Vice Chair of the SRC), Dr Nick Spencer and Dr Stephen D'Souza for their work in updating this document and Dr Sue Barter and members of the Service Review Committee for guiding its development.

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Vice-President

Faculty of Clinical Radiology

1. Service standards in clinical radiology

- 1.1 The General Medical Council (GMC) has given clear advice on the responsibility of doctors to ensure the maintenance of standards.¹
- 1.2 *Equity and Excellence: liberating the NHS* puts patients and the public first, and aims to improve healthcare outcomes.³ NHS organisations remain accountable for continuously improving the quality of their services and safeguarding high standards of care. Clinical governance is now embedded as a key tool to ensure clinical quality in the NHS. Furthermore, clinical governance activity is a key element of medical appraisal and revalidation. Throughout the NHS, the quality of patient care has increasingly become a shared responsibility for organisations, the teams within them and the individual healthcare professionals within those teams.

The Government's programme for assuring the quality of healthcare has been outlined,^{4,5} and the devolved administrations have ensured there are similar strategies in place in Scotland, Wales and Northern Ireland.⁶⁻⁸

It is recognised in the Government's White Paper *Trust, Assurance and Safety: the Regulation of Health Professionals in the 21st Century*⁵ that good doctors working in difficult circumstances or in poor systems have made human errors and have been inappropriately referred to the national professional regulator, when what was needed was more effective local clinical, commissioner or organisational management. In a multidisciplinary environment such as a department of radiology where healthcare professionals frequently work together, their ability to work co-operatively in the best interests of their patients is as much a measure of clinical quality and good patient care as the individual strengths and weaknesses of the professionals within the team.

It is in situations where these processes fail or where there is internal conflict, external advice may be sought and the RCR might offer advice and support.

This role of the RCR continues to develop alongside other mechanisms for assessment of healthcare quality and accountability, such as the Care Quality Commission (CQC), the NHS Commissioning Board Special Health Authority, the National Clinical Assessment Service (NCAS), which is an operating division of the NHS Litigation Authority (NHSLA), Healthcare Inspectorate Wales (HIW), Regulation and Quality Improvement Authority (RQIA) Northern Ireland, and Healthcare Improvement Scotland.

- 1.3 The essential elements of clinical governance are:

- Governance of clinicians by clinicians – local self-regulation
- Support for clinicians from managers to ensure adequate resources for the delivery of a high-quality service and maintenance of high standards
- Involvement of clinicians in the management of the NHS.

All of the above factors affect the quality of care and any review of a department of clinical radiology will need to take account of these elements.

1.4 The RCR is committed to maintaining high standards of patient care and this commitment underpins any RCR assessment of individual clinical radiology departmental practices. To this end the RCR has established a number of initiatives:

- Publication of specialty training curricula
- Training programmes are approved by the General Medical Council (GMC) rather than the RCR, although any applications for such approval require the applicant to include a demonstration of support from the RCR
- Postgraduate examinations
- Publication of specialist journals, and organisational and clinical standards and guidelines
- Local and national clinical audit through the Clinical Radiology Audit Committee
- Continuing professional development through courses and meetings
- The development and publication of professional standards through the Professional Support and Standards Board
- Development of the Imaging Services Accreditation Scheme jointly with the College of Radiographers.⁹

1.5 While there are different types of health organisations delivering healthcare within the devolved countries, this document will refer to trusts throughout for ease of reference.

2. The role of the RCR in reviews

- 2.1 Patients, their families, carers, healthcare workers and taxpayers rightly expect that a modern high-quality healthcare system will have mechanisms to audit the overall quality of healthcare provision by hospitals and individual healthcare professionals.
- 2.2 The Care Quality Commission (CQC), the independent regulator of health and adult social care services in England, undertake inspections to judge whether national standards are being met within five domains of care. It publishes its findings and may take enforcement action. In the devolved countries regulation and inspection of services is different. In Scotland this function is performed by Health Inspectorate Scotland. Healthcare Inspectorate Wales undertakes some of the functions of the CQC and NCAS in England. In Northern Ireland, the Regulation and Quality Improvement Authority acts as the independent Health and Social Care Regulator.
- 2.3 The National Clinical Assessment Service (NCAS) operates across the UK. NCAS works to resolve concerns about the practice of individual dentists, doctors and pharmacists, and can make assessment of teams, and offer guidance on clinical governance matters. Its role is to clarify concerns, understand what is leading to them, and make recommendations to help practitioners to deliver a high-quality and safe service. On occasion, this may involve the RCR being called upon to review the work of departments or of individual radiologists and to make recommendations where standards or performance are giving cause for concern.
- 2.4 The Academy of Medical Royal Colleges (AoMRC) has published guidance for the conduct and quality assurance of invited reviews.¹⁰ The principles outlined in that guidance have been incorporated into the process for service reviews recently updated by RCR.
- 2.5 Clearly defined methods have been developed for dealing with 'problem doctors'; from the guidance within the recently updated *Good medical practice* publication from the GMC (2013),¹ and the incorporation of revalidation into routine clinical practice.
- 2.6 The role of the RCR in the process of review will, therefore, largely relate to problems that require the specific expertise of RCR Fellows in assessing the quality of care provided by a whole department or clinical radiology service.
- 2.7 Requests for review by the RCR may arise:
- From a CQC report
 - Subsequent to an NCAS assessment of an individual radiologist
 - If the collective performance of a department of clinical radiology is giving cause for concern
 - When there are disagreements between the hospital management and the department of clinical radiology (in terms of performance, manpower, workload or resources)
 - When the hospital management and the department of clinical radiology (working together) seek an independent review of the local services and the resources assigned to them
 - When an individual radiologist is underperforming, and the root cause is partly or completely due to the way the radiology department is managed.
- 2.8 The Service Review Committee (SRC) is not a radiology management consultancy. It aims to provide an independent review of structure, organisation and practices within the department and the relationship to the wider trust to ensure quality care is provided in departments of clinical radiology. Given this aim, the SRC seeks to work within an ethos of openness in the conduct of its work. However, the nature of reviews means that the SRC and any review team must ensure that data and

information specific to the review is treated as strictly confidential by all parties involved, to promote participation by all in an open, equal and fair way. Information about the approach to reviews, the materials that need to be treated as confidential, as well as the handling of information generally is outlined in Section 7 and Appendix 5 of the process document available on the website.

2.9 The RCR has a responsibility to provide rapid, expert and informed objective advice when a review is requested. To fulfil this requirement, a framework for the process of assessment has been developed by the SRC to ensure that a consistent approach is adopted by the review team in an individual review. This reflects:

- Publications by the GMC, which give clear advice on the responsibility of doctors to ensure the maintenance of standards¹
- The requirements of clinical governance
- Requirements for revalidation and linkage with registration and licensing to practise
- Published RCR Standards
- RCR publications which inform good practice.^{2,11}

2.10 If a request is made to the RCR, the trust or equivalent should:

- Clearly define, in writing, the problem as seen by the requesting body, and the reason(s) for the request
- Indicate (a) whether a referral has been made to the NCAS, the GMC or similar organisation and (b) indicate whether employment tribunals or other related legal processes are completed, in progress, or are expected to commence during the service review
- Give details of the steps already taken to try to resolve the problem and their outcomes
- Inform all the involved local clinicians that an external review of the department of clinical radiology has been requested
- Agree the Terms of Reference and methodology with the RCR
- Indemnify the review team, the RCR and any clinical expert appointed to review cases
- Abide by the protocol on information management
- Agree the proceedings of the review and all related documentation will be treated as absolutely confidential by the trust and its employees
- Arrange and fund the appropriate administrative support for the review team, including the provision of an independent stenographer
- Provide suitable and private office accommodation to allow the team to conduct its work in absolute confidentiality
- Identify a single point of contact who should be a senior clinician or manager
- Reimburse direct expenses and recompense appropriately the members of the review team and any additional agreed clinical expertise through the RCR
- Agree to formulate an action plan in response to the review recommendations and to respond to the RCR's request for information on progress with any action points in the action plan six months after the review.

2.11 In turn, the RCR shall:

- Act expeditiously, following guidance in the Terms of Reference with due regard for natural justice
- Appoint a review team, which will:
 - Visit the department within a reasonable timescale
 - Prepare a draft report according to agreed terms of reference

- Prepare the final report and recommendations for appropriate circulation
- Monitor the methodology and the outcome of reviews to inform future policy
- Provide detailed guidance on the processes to be followed during the course of a review to trusts who wish to commission a service review.

2.12 The RCR also publishes guidance on the process of service review.¹²

3. The Service Review Committee

3.1 Membership

The membership of the SRC comprises both clinical radiologists and independent lay members, including radiologist members. The RCR Medical Director, Professional Practice, Clinical Radiology is the Committee Chair, and a medical member is Vice-Chair. *Ex-officio* members include the RCR President and the Vice-President, Clinical Radiology. The committee will aim to maintain at least three independent lay members. The usual term of office for sitting members will be five years. A second term of office can be agreed with the Chair on behalf of College Officers.

The membership will reflect the diverse nature of departments of clinical radiology as well as providing a geographical spread. Radiologist members are Fellows in good standing of the RCR and are chosen on the basis of documented experience in management within departments of clinical radiology. Lay members are selected on the basis of an application process and vacancies are advertised through the RCR and other respected sources. Vacancies for radiologist members of the committee will be advertised in RCR communications to Fellows. Co-opted radiographer members will be selected in collaboration with the Society of Radiographers.

Fellows who wish to apply for selection will be asked to submit a mini curriculum vitae, and will be chosen with maintenance of the geographic and ethnic diversity of the committee in mind.

3.2 Meetings and communication

The SRC meets twice annually to consider requests for service review visits, to monitor the confidential reports of review teams, to define the structure, timescales and circulation of reports, and to reflect on procedures generally. This is seen as important for continuous refinement of the framework under which the SRC operates.

Significant flexibility is required in the process of communication between members, including the scheduling of meetings and in the process of selection of review teams; this is managed by the Chair. The SRC considers which decisions can be resolved by telephone and electronic communication and which require full Committee meetings, if the speed of response, which is essential to this function of the RCR, is to be achieved.

3.3 Relationship with revalidation and service accreditation

The RCR provides advice and support to individuals throughout revalidation. Where external bodies such as the GMC Employer Liaison Service, NCAS), professional support units and responsible officers within revalidation-designated bodies make revalidation enquiries of the RCR, specialty-specific advice will be provided.

However, it is not envisaged that the SRC or its service review process will contribute to revalidation of individuals. Service reviews may offer advice directing trusts towards seeking ISAS accreditation, but will not become engaged in a trust's preparation for such accreditation.

3.4 Composition of review teams

Members of the SRC form a core membership of any review team. A radiologist member will be the leader of the review team and other members of the team will be selected, taking due regard of the nature of the department to be reviewed, the specialist area or areas (if any) over which concern has

been raised as well as issues of gender and culture. An independent lay member of the SRC will be core to every review team. The team may also include a radiographic member, as appropriate.

3.5 Training

Training and training updates including diversity training are provided for members of the SRC as appropriate. An information pack has been developed for new independent lay members of the SRC as background information on the workings of departments of clinical radiology.

3.6 Terms of Reference

The [Terms of Reference](#) and Constitution of the SRC are available on the RCR's website.

4. The review team

- 4.1 Responsibility for establishing the membership and chair of review teams will reside with the Chair of the SRC (see Section 3), or Vice-Chair in the event of a potential conflict of interest for any particular review.
- 4.2 The review team will usually comprise members of the SRC, who will be selected for the review where possible with regard to the nature of the department to be reviewed and the review. The review team will also include a lay member. Increasingly a multi-professional approach is being taken to service review. At the discretion of the SRC chair, with the agreement with the review team leader, an experienced and senior radiographer associated to the SRC may also be selected to join the review team. When the review team is formed, the Chair of the SRC will consider whether any additional expertise is required for the specific review and, if so, what form it might take.
- 4.3 Any conflicts of interest, biases or prejudices will be identified prior to appointment to the review team, and robust lines of communication between the review team and the RCR will be in place.
- 4.4 The Chair of the SRC, together with the review team leader, in accordance with the Terms of Reference of the SRC, will have responsibility for:
- Defining the process of review
 - The process of constructive informal feedback
 - Report writing.
- 4.5 The review team should liaise with the Chair (or other RCR Officer, where appropriate) to ensure the report is consistent with RCR policy. RCR Officers will review the report before release to ensure there are no conflicts with RCR policy in the advice offered.

5. Potential topics for evaluation within reviews

The prime consideration of the SRC will be the maintenance of a quality radiology service for patients. Some or all of the following topics may require evaluation during reviews, depending on the circumstances and nature of the request and the remit of the review team. Where available through NHS bench-marking and other comparators, the review team will make comparison with similar units performing broadly equivalent numbers of radiological examinations of a comparable nature.

5.1 Workload and environment

- The nature and number of examinations performed.
- The balance between those techniques requiring significant personal involvement of the clinical radiologist, (for example, some fluoroscopy techniques, some ultrasound procedures and all intervention procedures), those requiring high levels of radiological supervision (such as some CT and MRI studies), and plain film reporting.
- The reporting practices of the department – whether all images are reported by trained, competent medical practitioners or allied professionals. Reporting turnaround targets and times achieved for inpatient, outpatient and primary care referrals. Results of reporting time audits and report quality audits.
- The process by which new appointments in clinical radiology are linked to appointments in other specialties within the hospital as well as to local and regional service development and new medical practice.
- The working environment including support staff, accommodation, reporting conditions, protection from interruption, IT issues and equipment.

5.2 Job plans

- The use of team job planning and how the job plans of radiologists and other reporters are developed to match acquisition and reporting capacity.
- The balance between direct clinical care (DCC) and supporting professional activity (SPA) allocation.
- The fulfilment of roles within the team including leads for governance, audit, discrepancies, policy development within job plans.
- Individual and team workload.
- The level of recognition of teaching, on call, multidisciplinary team meetings including preparation time, clinico-radiological conferences, clinics and consent where appropriate, administration, management and other SPAs and time and resources allocated for these responsibilities.
- Constructive and fair appraisal, taking account of the needs of the clinical radiologist as well as the requirements of the service.
- Audit – all clinical radiologists should be involved in medical audit, which is a contractual requirement. There should be clear leadership of the audit process within the department.

5.3 Continuing professional development (CPD)

- Opportunities for funded study leave.
- Involvement of clinical radiologists in local education and training, as demonstrated, for example, by their attendance at, and contribution to, Grand Rounds.
- Personal development plans that are realistic and supported and resourced by management.

5.4 Wider radiology service staffing

- Radiographic numbers and grade – the role of radiographic staff, to include assessment of the appropriateness of the use of their particular skills.
- Medical physicists – level of support for radiation safety equipment maintenance and monitoring.
- Secretarial staff – numbers and level of support for clinical, research, audit and management activities.
- Nursing staff – level of support for interventional procedures and post-procedural care. Contribution to the holistic care of patients within the department of clinical radiology.
- Clerical staff – numbers and seniority of staff.
- Portering staff – numbers of portering staff, including flexibility within the trust to support variations in clinical demand.

5.5 Communication

5.5.1 Communication between staff

- Within the department – consultant-to-consultant, consultant-to-junior, consultant-to-radiographer, consultant-to-nurse, consultant-to-clerical staff.
- Outside the department – with other clinical consultants, via clinico-radiological conferences with general practitioners, with nurses and midwives, and with others.
- With management.

5.5.2 Communication with patients

- The processes for assessment of patient satisfaction.
- Evidence from patient satisfaction surveys, where these have been performed.
- Any complaints and testimonials relating to individual radiologists and to the department.
- Any clinical incidents.
- Use of patient information leaflets.

The process of assessment of communication will normally include interviews of clinical user groups, radiographic staff and representative(s) of management (usually the clinical director).

5.6 Management arrangements

- Local management structures – whether these are appropriate to support the particular functions of the department of clinical radiology.
- The process of line management for dissemination of information and decision-making.
- Management style and its effect on morale.
- The involvement of clinical radiologists in trust management, particularly their representation on trust management boards.
- Involvement of clinical radiologists in central decision-making processes, particularly in negotiations relating to recruitment, contracts and workload.
- Risk management strategies.
- The opportunities for management training for clinical radiologists.
- Administrative support. In larger departments, this would be a business manager, but the lead clinician or clinical director would need to have access to, for example, expert financial opinion.

5.7 Organisational infrastructure

- Adequacy of the appointment system.
- Robustness of the arrangements for image storage and retrieval.
- Availability of appropriate IT, sufficient to support the activities of the department (see Section 5.11).

5.8 Equipment

- Appropriateness of the equipment for the task.
- Adequacy and efficiency of the equipment replacement programme, together with evidence of compliance with this programme.
- Evidence of proper equipment maintenance and quality assurance.
- Plans for service development in the trust. Where these include purchase of new equipment there would need to be involvement of clinical radiologists in the assessment of the service need.

5.9 Skills mix

- The appropriateness of the use of skills mix.¹³
- The appropriateness of delegation.¹³
- The presence of well-defined written protocols.
- The availability and adequacy of medical support for role development.

5.10 Guidelines for patient referral for imaging procedures

- The use of local and national guidelines (for example, *iRefer: Making the best use of clinical radiology*).¹⁴
- Variation according to local practice.
- The process of dissemination of information relating to protocols.

5.11 Information technology

- The effectiveness and ease of use of radiology information systems (RIS) in contributing to data retrieval for service delivery, audit and research.¹⁵
- The process of reporting – RIS, picture archiving and communication systems (PACS), voice recognition (VR), order communications and wider systems integration.

5.12 On-call and continuity of care

- Whether there is a robust on-call system including provision for 24/7 interventional radiology cover.
- Use of teleradiology reporting services.
- Use of outsourcing or locally sourced additional reporting.
- Whether the arrangements for leave, including notification and cover are clearly identified.

6. Assessment of individual performance

A service review will not assess individual performance or competence. However, comparative performance of individuals within teams will be reviewed. Where appropriate, local investigatory procedures have demonstrated issues requiring further assessment of individual performance referral to NCAS or GMC may be recommended as appropriate.

Where relevant, the outcomes of interventional procedures, including morbidity, mortality and success rates will be benchmarked against those of nationally available data and/or by internal comparisons.

The review team will only consider index cases which have been dealt with by the trust procedures for clinical governance, critical incident reporting or risk management. This is to ensure that the cases examined have been subjected to the necessary level of scrutiny at local level to identify them properly as representing an unacceptable standard of service.

7. The review team's recommendations

The review team recommendations are likely to vary considerably between reviews. Areas where recommendations may be made or advice offered include:

- Work environment, accommodation, co-location of services
- Equipment fitness for purpose and advice on replacement
- Matters around safety and governance
- Leadership and service management
- Workforce planning including recruitment and retention of clinical staff
- Local practice review and benchmarking against similar trusts.

Alongside the reporting of recommendations, the RCR has a duty to raise serious safety concerns of immediate risks to the service to the Trust commissioning the review. If necessary, the RCR will refer the appropriate information immediately to the relevant regulatory body. This could mean an escalation of the concerns to the GMC or, as appropriate to the location of the service, to the Care Quality Commission, Healthcare Improvement Scotland, Healthcare Inspectorate Wales, or the Regulation and Quality Improvement Authority.

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