CLINICAL RADIOLOGY AND THE PATIENTS OF GENERAL PRACTITIONERS

In 1981 the Royal College of General Practitioners and the Royal College of Radiologists issued a paper outlining facilities that should be available to general practitioners in departments of clinical radiology. When updated in 1993, the paper re-emphasised the importance of imaging to the management of the patient in the primary care setting. This new paper attempts to bring these principles into line with current Health Service philosophy in which departments of clinical radiology and primary care providers should work together, in partnership, to improve the care of patients. In theory, devolution of resources to primary care organisations should facilitate such initiatives.

1. **Value of direct access.** Direct access to clinical radiological services is essential for modern general practice. It can shorten the time to diagnosis, which improves the quality of care. It can also help prevent unnecessary referrals to secondary care. General practitioners should have rights to request radiological examinations similar to those enjoyed by hospital consultants, bearing in mind the limitations in capacity within some departments of clinical radiology and the recommendations contained in nationally agreed guidelines on referral of patients for radiological examination.

2. **Allocation of resources.** The overriding principle in departments of clinical radiology is that of clinical priority. When radiological resources are limited, urgent examinations (usually hospital inpatients) must take priority, but any further constraint should fall equally upon referrals from general practitioners and hospital outpatients, subject always to the clinical radiologist’s decisions on medical priority. The Colleges see no clinical justification for maintaining longer or unequal waiting lists for patients referred by general practitioners than for patients referred by hospital doctors or other medical professionals.

3. **Radiological facilities.** The range of radiological investigations available to general practitioners must be determined by local departments of clinical radiology in consultation with representatives from primary care, bearing in mind the resources allocated to departments of clinical radiology by the provider units or trusts. The range of examinations undertaken by different provider units varies widely. Plain film radiography, general ultrasound and studies such as barium enema are often freely available to general practitioners. The appropriateness of such referrals should be in accordance with nationally agreed guidelines, such as those included in the Royal College of Radiologists’ *Making the Best Use of a Department of Clinical Radiology* (5th Edition) [1].

Arrangements for more complex studies such as CT and MRI will be subject to local negotiations. However, there is increasing interest in making such
investigations more widely available in order to reduce referrals to A & E and outpatient departments and to avoid inpatient admissions (e.g., spiral CT for renal colic). Educational opportunities should be made available to keep general practitioners informed about advances in imaging, and training should be provided for those wishing to refer patients for more specialised investigations.

The relationship between general practitioners and clinical radiologists should be developed to enable the general practitioner to present the clinical problem and the clinical radiologist to identify the appropriate investigation. Indeed, a formal referral to a department of clinical radiology to ‘investigate and advise’ on a clinical problem may, on occasions, be more appropriate than submitting a request form for one particular investigation.

4. Siting and control of radiological facilities. In the light of legislation (i.e., Ionising Radiation (Medical Exposure) Regulations- IR(ME)R) [2], it is necessary to protect patients from unnecessary radiation and to maintain the highest possible quality of clinical radiological services. Hence, radiological facilities should be sited in properly staffed departments of clinical radiology under the control of clinical radiologists. The Colleges endorse the contents of various documents concerning dose reduction to the patient in diagnostic radiology and the EURATOM Directive on Ionising Radiation [3]. General practitioners should be aware of their role as ‘referrer’ and be prepared to answer queries from the ‘operator’ (usually a radiographer) or the ‘practitioner’ (usually a clinical radiologist). Everyone should be committed to keeping the radiation dose as low as reasonably practical.

Special care must to be taken when siting radiological equipment in diagnostic centres or other small units as this may dissipate capital and scarce staffing resources and may cause difficulty with the ionising radiation regulations. However, such facilities may sometimes be necessary for geographical and other reasons. In all cases, however, the facilities should be under the organisational control of a clinical radiologist and linked by picture archiving and communicating systems (PACS) and other telecommunication links to a central department of clinical radiology. Ideally, radiology staff, both clinical radiologists and radiographers, should rotate out to these smaller centres for the purposes of clinical governance and training issues. In any event, the range of procedures at such peripheral units should be carefully considered and agreed between primary care providers, local clinical radiologists and the primary care organisation, whether funding comes from the DoH, public appeal or private resources.

5. Restrictions on the type of examination available in smaller units. Some examinations may not be appropriate for small units. They include studies involving intravenous contrast medium (e.g., CT), which are associated with potentially lethal complications. The risk of such adverse reactions means that a medical practitioner should be in attendance
throughout the relevant procedure with fully provisioned resuscitation facilities.

Staffing issues do not always permit a clinical radiologist to be in attendance for every radiological procedure and much is left in the hands of highly trained radiographers [4]. There is, of course, a tendency for more images than necessary to be obtained when an experienced eye is unavailable to offer a prompt opinion. It is hoped that better telecommunication will help avoid such unnecessary exposure.

6. **Funding, installation and replacement of equipment.** The high cost of radiological equipment is a further argument for centralisation. Thus, there should be careful scrutiny of any proposed equipment or service, whether funding comes from the DoH, public appeal or private resources. The long-term replacement costs should also be considered.

7. **Responsibility of radiographic staff.** The clinical responsibility of a radiographer in any department of clinical radiology is, ultimately, to the Clinical Director in managerial authority (usually this is a clinical radiologist). General practitioners also need to keep this in mind and be aware that a clinical radiologist may only be available in any individual unit for a few sessions per week in accordance with job planning.

8. **Clinical responsibility for patients.** While the general practitioner has overall responsibility for the care of his or her patient, when the patient is in a department of clinical radiology the clinical radiologist assumes responsibility. Referrals are essentially a request for consultation, and the nature of that consultation, i.e., the means by which a management problem is solved using various radiological techniques, is a medical decision vested in the clinical radiologist. The results of any such examination are also expressed in the form of a medical opinion given by the clinical radiologist to the referring clinician, in this case the general practitioner. Hence, the responsibility of the clinical radiologist includes the selection of the appropriate imaging investigation, the conduct of the examination, its interpretation, the clinical care of the patient during the course of the examination, and the management of any complications arising from the examination. Furthermore, interventional radiologists may assume full clinical responsibility for patients referred to them, on the same basis as consultants in other clinical discipline. So that all these decisions may be made in the patient’s best interest, it is the general practitioner’s responsibility to notify the department of clinical radiology of any relevant aspect of the patient’s clinical condition that may not be immediately apparent from the request form (e.g., contra indications for MRI).

9. **The request form as a request for consultation.** Most requests for radiological studies, whether from hospital doctors or general practitioners, are entirely appropriate to the clinical problem and are performed without question. In some cases, however, the best examination for resolving a problem may be a different imaging investigation from that initially
requested. In a complex and rapidly changing field, the clinical radiologist is responsible for selecting the most suitable investigation based on the clinical information provided and knowledge of the efficacy of imaging procedures. An imaging request form, a referral letter, an electronically generated request or other form is a request for a clinical outpatient consultation. It is hoped that all general practitioners will soon have direct electronic access to the Royal College of Radiologists’ guidelines for referrals [1].

It is important that, whenever possible, the clinical radiologist communicates with the referring general practitioner if requests are to be modified or substituted, not only as a matter of courtesy, but because both parties may learn from such discussions. Communication between departments of clinical radiology and referring general practitioners should be optimised, ideally with electronic links between general practice practices and radiology information systems (RIS and PACS). Such electronic links, especially if they incorporate nationally agreed guidelines would greatly facilitate the justification for and approval of requests. They would also help the general practitioner access the results of imaging examinations requested by hospital doctors on their patients. At present, this may require several telephone requests.

10. Reporting style. A basic description of abnormalities found on radiological examination may be suitable for a report to a hospital consultant who can readily view the images personally and understand the significance of a purely descriptive report. With the advances in electronic networks, it is hoped that general practitioners will soon be able to view the images of their patients and the clinical radiologists’ reports in their own offices. It is important, however, that general practitioners receive a definitive written report with clear conclusions indicating the level of significance of any reported findings, together with any pertinent recommendation for referral or other studies which may be indicated to further clarify or resolve a diagnostic problem.

11. General practitioner access to radiological records: communication, images, reports, etc. Most general practitioners should already be able to access departments of clinical radiology by electronic means in order to seek advice about appropriate imaging strategies. With increasing use of clinical radiology as the ‘gate keeper’ between primary and secondary care, regular clinico-radiological meetings with groups of general practitioners and clinical radiologists may be a cost-effective method of discussing individual cases and providing ongoing education in this rapidly evolving field. The increasing nationwide investment in IT is helping to provide community based PACS and, ultimately, the electronic patient record (ePR). Such innovation, whereby the general practitioner will be able to interrogate current or previous images and reports should confer considerable benefit to the management of patients.

12. Imaging by non-radiologists. The Colleges stress the importance of imaging and reporting being undertaken by adequately trained individuals.
Under normal circumstances, imaging and reporting is carried out by clinical radiologists or radiographers (e.g., ultrasonography).

There are increasing numbers of people who have taken courses in reporting skills and may have achieved competency in some areas (e.g., radiographers for A & E interpretation). However, the Royal College of General Practitioners, the College of Radiographers and the Royal College of Radiologists all emphasise how important it is that such individuals should be aligned to an ‘umbrella’ department of clinical radiology to discuss complex cases, maintain skills, and continue with their professional development. In some centres there are general practitioners who have developed skills in limited areas of radiology (e.g., ultrasound applications) [5]. The two Royal Colleges have issued previous guidelines about how such training and practice should evolve [6]. In essence, the general practitioner who undertakes radiological procedures is required to demonstrate through the annual primary care organisational appraisal process that an appropriate period of time has been invested in training and that competence has been achieved and is maintained. Again, it is desirable for such practitioners to be aligned to departments of clinical radiology so that they can keep up-to-date and discuss complex cases.

13. **Education.** The Royal Colleges support the need for more teaching in clinical radiology to non-radiologists. This would involve teaching various aspects of imaging during vocational training and as part of continuing medical education. Organisers of postgraduate events should ensure that there are regular contributions on issues related to clinical radiology in primary care, and issues related to primary care in clinical radiology.

14. **Flexible Access to patients of general practitioners.** Many general practices and departments of clinical radiology have developed more flexible access for patients than in the past. This may extend as far as the patient telephoning to arrange an appointment at a mutually convenient time. In order to maximise throughput on expensive equipment such an appointment may be in the early morning or evening; these later times may also allow easier parking, childcare arrangements, etc. Many primary care organisations have negotiated arrangements with departments of clinical radiology that allow cases deemed ‘urgent’ to be seen without a booked appointment. However, it must be appreciated that there will not always be appropriate staff on site at all times to allow immediate specialist reports. Furthermore, any patient likely to require immediate treatment (e.g., possible fractured wrist) is best referred to a centre where further definitive treatment is available.

**Royal College of General Practitioners**

**Royal College of Radiologists**
References


Date: Spring 2004
Review date: 2006

Ref No: BFCR (04) 3

Approval dates:
RCR Board of Faculty of Clinical Radiology – 20.02.04
RCR Council – 12.03.04