Quality imaging services for primary care: a good practice guide

Royal College of General Practitioners

Society and College of Radiographers

The Royal College of Radiologists

Foreword

In the changing healthcare system in which we now all live and work, it is timely that we focus on providing quality imaging services for primary care. This document has been developed collaboratively between The Royal College of Radiologists (RCR), the Royal College of General Practitioners (RCGP) and the Society and College of Radiographers (SCoR) as a good practice guide to developing collaborative practices between diagnostic imaging departments and primary care providers for the benefit of patients, and to support GPs in delivering excellent, timely care.

All three organisations recognise the importance of early diagnosis in providing effective care for patients, and the tremendous difference this makes to primary care.

Our organisations also recognise that some of our members may find aspects of the guidance challenging, especially where relationships between secondary and primary care are not as developed as they will need to become, and where the range and nature of service pressures is such that some of the recommendations will be difficult to deliver in the short term. This guidance should assist them to address the challenges and to achieve our common goal of ensuring that primary care has proper access to high-quality imaging services.

While the drive for this document has been the new commissioning system in the NHS in England, we would hope that the principles within it are relevant to the delivery of primary care radiology services across the UK.

The RCGP is very pleased to publish this good practice guidance with the RCR and the SCoR. It reflects our thoughts on medical generalism as described in the publication *Medical generalism: Why expertise in whole person medicine matters*,[1] which the RCGP published in 2012. This sets out clearly the reasons why effective relationships between GPs and diagnostic services can make a tremendous difference within primary care.

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1. Introduction

There is a drive to improve support for patients at home and in the community by enhancing primary care services and thus avoiding unnecessary referrals to secondary care. For this to be successful, there needs to be appropriate support for clinical colleagues in primary care.

It is well established that early diagnosis is key to the management of such patients. Not only does such early diagnosis lead to better outcomes but a negative investigation can exclude disease, reassuring the patient and doctor and avoiding further unnecessary anxiety.

It is, therefore, timely to consider what constitutes best practice in clinical imaging services focusing on primary care. In doing so this guide will support local NHS clinical imaging departments in remaining the preferred provider of imaging services to their local clinical commissioning groups.

The document is the result of collaboration between the RCR, the RCGP and the SCoR. It gives pointers and promotes ideas for good practice – it is not comprehensive but is produced to stimulate improvement in the responsiveness of clinical imaging services and to encourage best practice for both providers and commissioners.

With the new Health and Social Care Act 2012[2] in place in England, there is a specific focus on the commissioning of clinical imaging services. This is being highlighted under the Any Qualified Provider (AQP) agenda.[3] The traditional providers of NHS clinical imaging – that is, those services based in secondary care hospitals – have a difficult role to play in balancing the demands from both secondary and primary care for their services. It is important in carrying out this challenging task that NHS clinical imaging services are considered optimal by GPs and other referrers based in primary and community care.

2. Underlying principles

There is increasing reliance on clinical imaging services to support and direct the appropriate management of patients. It is important that any decisions on providing such services are based on sound patient-centred principles. The following points expand on this primary focus.

- Imaging must be undertaken for the benefit of patients as its primary function.
- If implemented correctly, improving imaging access should shorten the patient pathway, facilitate better patient care and produce savings across the healthcare economy.
- Imaging must be undertaken in line with accepted, agreed evidence-based guidelines, with full knowledge and application of statutory obligations, in particular *The Ionising Radiation (Medical Exposure) Regulations 2000* (IR(ME)R)[4] and subsequent amendments.
- Patients should have timely access to appropriate imaging provided by a service with proven clinical governance structures in place, by appropriately trained staff using appropriately maintained equipment, with underlying compliant 24/7 information technology (IT) support.
- Imaging services should have knowledge of, and access to, necessary onward referral pathways.
- Comprehensive clinical imaging services in the NHS provide patients, GPs and other referrers and commissioners with direct access to essential core services. Commissioners and providers should be cognisant of the potential risk of threatening viability of such core services within NHS trust organisations, through the introduction of new providers, although with careful planning and involvement of all parties this should be mitigated.

3. Key considerations in primary care clinical imaging services

The quality of any clinical service can be judged by the following criteria:

- Patient outcomes
- Patient safety
- Patient and user experience
- Efficiency.

Although all aspects of quality are important in terms of primary care clinical imaging services, there are five components which need specific focus and attention. These are:

- Patient access
- Patient information
- GP/referrer access
- Clinically appropriate imaging
- Integration into pathways of care.

The RCR and the SCoR have jointly addressed all of the above by developing the Imaging Services Accreditation Standard and the associated accreditation scheme (ISAS). Patients, GPs, referrers and commissioners can be assured that ISAS-accredited services are delivering the highest quality of services and have embedded the above principles in the way they work, while those engaged in the accreditation process demonstrate a commitment to these principles.[5]

3.1 Patient access

3.1.1 Geographic

Although the majority of the population in the UK live within an acceptable distance of fixed hospital sites, there are a significant number in rural areas where provision is lacking and more local diagnostics are or could be provided on a flexible basis closer to home. There is a move to provide care closer to home and to avoid unnecessary visits to hospitals, allowing secondary care to focus on those patients who really need their expertise.

Potential sites for primary care clinical services include larger healthcare centres, stand-alone diagnostic centres and in some situations mobile options. In the planning of dispersed clinical imaging services, commissioners need to balance the desire to improve access alongside the potential increased cost and reduced efficiency of service/staff utilisation.

3.1.2 Timeliness

There are two key questions in most patients' minds when referred for an imaging test:

- How soon can I have the test?
- When will I get the result?

There is a third question for many:

- Can I have the test at a time convenient to me?

How soon can I have the test?

There is strong argument that access should be the same for all patients and should be in a time frame that positively affects the care of the patient and acknowledges their psychological and social needs.

The aspirational goal for clinical imaging services is to have a no-wait culture through the commissioning of quality imaging providers delivering appropriate and timely 'choose and book' offerings. Almost all imaging should be performed as soon as possible from receipt of referral and there is an expectation that this should normally occur within two weeks. This does, however, have clear implications for resources but would be expected to deliver tangible benefits – not only in shortening patient pathways but also in reducing secondary care referrals and hospital admissions.

Can I have the test at a time convenient to me?

'Choose and Book' offers a booking system that can respond to patients' individual needs. Extended opening hours during the week would be beneficial to match primary care opening hours and weekend appointments, while also providing a wider range of appointment times for working patients. A number of departments offer extension of appointments between 8.00–8.00 pm, Monday to Friday and weekends 9.00 am–5.00 pm, Saturday and Sunday. This provides greater choice as well as benefits in access, parking and so on. Open access for standard/plain imaging within these time frames is a reasonable expectation.[6]

When will I get the result?

Once patients have had an imaging investigation, they quite rightly expect the results to be available to their GP without delay. It is desirable to report the majority of cases within one working day. Urgent cases where the report has an impact on the immediate management of the patient need to be reported at the time of examination and to be made available to the referrer. There will be a small number of cases where there needs to be more consultation before a meaningful report can be issued. Even in these cases, it should be possible to achieve a report to the referrer in two working days.

All reports should be communicated electronically via a reporting system that can push both key images and the report directly into the patient management system (PMS). This needs to incorporate a clear audit trail with regard to receipt/action. An agreed system should be in place for the handling of urgent or unexpected results in line with the RCR guidance.[7]

Recommendations

- **Waiting times to appointment**

Routine cases	1 week maximum (desirable)
	2 weeks (acceptable)
Urgent cases	1 week maximum

It must be emphasised that there will be some exceptions to these times. For instance, if the request is not deemed urgent on clinical grounds, the patient may elect to delay an appointment for social reasons.

- **Report turnaround times** (from examination to report being available to the referrer)

In England, the National Imaging Clinical Advisory Group agreed the following.

'Imaging services should aim to provide reporting turnaround times as follows:

– *Inpatient and A&E same working day*

– *All other cases by next working day*

Exceptions will inevitably occur where multidisciplinary team discussion or specialist opinion is required. For this reason a tolerance of 90% achievement is reasonable.'[6]

The important issue when agreeing such standards within an imaging service for primary care is that the patients' care and wellbeing is not compromised either by unnecessary delays in the result of an imaging study being available, or by an incomplete or substandard report being produced because not all the required information or expertise was available within a deadline.

Therefore, it is important to have local agreement on acceptable report turnaround times particularly for more complex imaging where input of more specialised and less available advice may be required.

The important issue is that the patient and referrer need to be made aware of the need for a delay in such report turnaround times.

Appointments available	8.00 am–8.00 pm, Monday–Friday
	9.00 am–5.00 pm, Saturday–Sunday
Open access for plain imaging during times above	Desirable

3.2 Patient information

In order that patients can exercise their right to choice, it is essential that they have access to relevant information about the quality of any imaging service that is available to them. Such information should include details of the qualifications and experience of those healthcare professionals providing the service and details of how such a service is integrated into the care pathway.

3.2.1 Referring clinicians should inform the patient of the purpose of the investigation and how it may possibly affect their management

Many patients undergo investigations without fully understanding why they have been requested and what the question is that the referrer is trying to answer. There are a number of reasons for this of which one may be because the referrer does not want to raise anxiety that serious life-threatening conditions might be uncovered. However, it is important that these conversations occur before the referral, that both referrer and patient perceive imaging as a means to an end and not an end in itself, and that both are aware of the limitations of imaging and the possibility there might not be a definitive result or outcome.

3.3 GP access

The GP or primary care referrer needs simple, direct access to clinical imaging services. The categories can broadly be divided into access for:

- Clinical discussion/advice
- Clinical guidance/protocols
- Requesting process.

3.3.1 Clinical discussion/advice

Primary care should have direct access to radiological opinion to allow clinical discussion/guidance. This can be provided in a number of effective ways using modern IT/telephone solutions. A dedicated portable/mobile phone for direct access either to a radiologist or an advanced practitioner who can provide immediate radiological advice/case discussion provides the added value in terms of quality being looked for by the new commissioning groups.

For advice that is not urgent, some departments run an email helpline with a generic address that is reviewed and cleared at regular intervals.

An example is in Kings Lynn where there is a 'hot doc' system with a direct dial phone staffed from 8.00 am to 7.00 pm Monday to Friday to facilitate discussion not only with GPs but also secondary care staff. This has proved very popular with primary care colleagues from a clinical point of view and has also had the ancillary benefit of establishing better relationships between primary and secondary care.

Recommendations

- All departments should endeavour to improve communication between primary care and the imaging service and this should be seen to be as the basis of a new form of multidisciplinary meeting (MDT). A primary care MDT utilising IT/direct phone access to radiological advice during normal working hours is a key service development.
- It is recommended that all providers provide a consultation service between primary care and senior clinicians.

3.3.2 Clinical guidance/protocols

The Royal College of Radiologists' Referral Guidelines – *iRefer: Making the best use of clinical radiology*,[8] – offer invaluable evidence-based guidance for all referring clinicians. Providers and commissioners should make sure that these are available at the point of referral. There may well be local variation and enhancement around this broad guidance according to local need/pathways/provision. Imaging departments should have readily available local guidance which should be regularly reviewed. This should be web-based and ideally on the local directory of services to allow easy access by primary care. Additional guidance should be available via direct contact as above.

The usefulness and adoption of guidance can be further enhanced by local education, training and support. Interactions between imaging services and primary care undoubtedly help a) establish relationships; b)

engage with the clinicians in relation to their expectations of the service; and c) feedback updates on protocols, access, guidance and so on.

Recommendations

- Provision of access to *iRefer*.[8]
- Local guidelines to be provided on local directory of services.
- Direct liaison with GP practices around service provision.

3.3.3 Requesting process

The Department of Health is clear that any services offered via AQP must be available via Choose and Book. Failure to offer Choose and Book in the future will result in NHS providers either being excluded or subjected to a rolling program of remedial action. Although there are significant challenges with implementing Choose and Book in clinical imaging departments, not least IT integration, finding and implementing IT solutions should be seen as a high priority for all.

As part of the evolving requesting process, referrals are being accepted by secure electronic means, ideally WebICE or similar, or at least via a secure email pro forma. Department mechanisms should adhere to the RCR document, *A practical guide to implementing Ordercomms in radiology*,[9] with particular reference to facilitating vetting, cancellations and queries, with appropriate communication with the referrer. An electronic audit trail needs to be available to ensure results have been received and actioned.

Recommendations

- Ensure requesting is via electronic Ordercomms with a full audit trail for requesting, vetting, returns.
- All services should work towards Choose and Book with commissioners under AQP requirements.

3.4 Clinically appropriate imaging

Making clinical imaging services more accessible through the emergence of multiple providers may result in an increase in inappropriate imaging unless proper governance is put in place. The use of referral guidance linked to an audit and education programme can be used to avoid any risk that more accessible clinical imaging services will lead to an increase in inappropriate imaging. Commissioners need to ensure that education/audit programmes are included in any service they commission, while providers should ensure they are proactive in providing appropriate support for their referring clinicians.

3.5 Integration into pathways of care

If services are commissioned from multiple providers, commissioners and providers must ensure that there is no risk that the patient pathway is fragmented; for example, where clinical imaging is from one provider and provision of onward care from a second provider, there must be optimal communication of results and images, complete confidence in the initial study, and no risk of duplication of examinations. Commissioners can mitigate against this by ensuring the commissioning process details the key expectations in relation to integration and transfer of images/reports between the provider, primary and secondary care.

Clinical commissioning groups (CCGs) and the NHS Commissioning Board should be encouraged to consider region-wide vendor-neutral archives, with the availability of a single thin client viewer, to which all providers in the region contribute, allowing seamless viewing or manipulation of images and reports, including within primary care.

National solutions of image transfer are already available with the Imaging Exchange Portal, although this is rather cumbersome for high-volume transfers with the resultant potential need for increased administrative resource.

Examples of good practice are already seen within existing NHS clinical imaging services. Sited alongside secondary care, these services are able to define clearly how imaging integrates into the patient journey and through their experiences ensure that protocols are in place to avoid unnecessary delays. The multidisciplinary team meeting (MDTM) has markedly improved patient management with specific cancer and non-cancer diseases. Referring primary care clinicians and the clinical imaging team, as part of the commissioning process, should explore how this could function in the community setting. Examples already exist in musculoskeletal care, where interface services led by physiotherapists have access to orthopaedic and radiological advice and support.

An example is the local low back pain pathway in West Norfolk – the GP with a special interest (GPwSI) sees the patient with the physiotherapist and refers for MRI, if appropriate. The MRI report is sent to the GPwSI with onward

referral to the orthopaedic surgeon if suitable. There is a monthly MDTM for feedback/education with primary care monitoring of referrals.

Recommendations

- Open access to *iRefer.*
- Local guidelines available on local directory of services.
- Previous imaging history – images and reports – must be available to all providers at the time of reporting to allow adequate interpretation of current examination.
- Open sharing of images and reports – aim for vendor-neutral archive and unified viewer across a local region/healthcare network to facilitate free sharing at point of need.
- Ensure overall healthcare economy maximum efficiency by commissioning imaging as part of an agreed pathway, wherever appropriate.
- Ensure communication between commissioners and imaging providers by establishing imaging services commissioning groups.
- Ensure communication between adjacent CCGs to unify commissioning intentions and specifications.

4. Educational feedback/audit

In the set-up phase of any new service, it is important that there is effective communication and that information is collected and shared which can be used to continually improve services. There needs to be effective audit of referral patterns with feedback for education and professional development. Clearly defined clinical leads – both from imaging services and from primary care – need to lead this work, with appropriate support built into any contract.

Recommendations

- Regular multidisciplinary education meetings – facilitate education, feedback and local primary and Imaging relationships.
- Separate MDT involving GPwSI, clinical imaging and secondary care specialists to review cases.
- Ongoing rolling audit of utilisation, appropriateness, waits and turnaround.
- Ongoing assessment of outcomes.

5. Commissioning issues

It is important that those commissioning imaging services are aware of potential undesirable consequences that may arise from commissioning selected aspects of an imaging service. The importance of integration has been stressed already but there are two further issues that should be considered.

The first is a potential to destabilise other necessary imaging services to the population for which they are responsible. This is predominantly related to those services provided in the acute hospitals setting who have to provide 24/7 emergency access which comes at a price of increased workforce and resource overheads. Removal of selected services to other providers may result in a reduction in staff and resources rendering the organisation unable to offer emergency and other urgent services within the locality.

The second is to consider education and training issues. If a significant volume of imaging is delivered outwith the traditional NHS providers there is a potential for a reduction in trainees' access to appropriate learning opportunities and material, as has been experienced with the outsourcing of ultrasound and musculoskeletal (MSK) MRI for example.[10]

Key to effective commissioning will be appropriate financial flows. From April 2013, the system of funding in England will be changing. The tariff for diagnostics, which previously was part of the bundle of activities included in the outpatient tariff, has now been allocated a separate tariff under the Payments by Results initiative,[11] which will permit appropriate development of primary care access to diagnostics. The important principle that Clinical Commissioning Groups should follow, when commissioning diagnostics services, is that the patient care should not be disadvantaged by inappropriate financial drivers.

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