

Audit for Radiology Trainees

Dr Anna Beattie, Dr Tom Elswood, Dr Mark McCleery and Dr Kathryn Siddle

Background

The 2018 JRF survey identified relatively strong support for audit in clinical practice. However, from the free text comments in the 2012 survey, many felt that audit is a tick-box exercise, which can lead to poor quality audits and time being wasted. 60% of trainees are not allocated time in rotas for audit and several comments suggest a lack of direct relevance to trainees and a disengagement with the process. Based on the survey results only a minority had used the AuditLive website.

However, audit is an important part of clinical practice with the ability to make major changes in patient care and improve both professionals' and patients' experiences in the healthcare system. Audit, or a quality improvement project, is also a compulsory annual component of radiology trainees' annual appraisal process and cannot be dispensed with.

Therefore, as a result of this survey and particularly the free text comments, the JRF has written this guide to help make audit more easy and advantageous to trainees.

Aim

To ensure that audit can be made more practical and relevant for trainees. Some of the audits described below can be done as multiple audit loops and, therefore, can be updated regularly.

Audits for Trainees

On-call provides a good opportunity for you to audit your performance, as it is the time you act most independently and therefore most reflective of the standard of your practice.

On-call Discrepancies

This can be done for a cohort of trainees similar to this [audit template](#). Alternatively, and perhaps more usefully, an audit of personal performance could be performed and used to

demonstrate progression in training. The college has produced Standards for Learning from Discrepancies meetings and auditing this will help trainees understand the process expected of them as a consultant and relate to on-call discrepancies, as in this [audit template](#).

An Audit of On-call Appropriateness Scans

This would be best done retrospectively and you could focus on your own requests and demonstrate how well they adhere to iRefer. There is a published [RCR national audit](#) on appropriateness of requests, which could be used for pointers in carrying this out. A template is available [here](#).

An Audit of Standard of (On-call) Radiology Reports

The best diagnostician is only as good as their effectiveness at conveying the salient information from a scan. Therefore, ensuring a high quality of reports is of paramount importance. A template for this audit is available [here](#).

Peer-Review Process

Senior trainees may wish to audit double reporting similar to the peer-review process. A template for an audit on errors in single reading is available [here](#).

Accuracy of Reports

This is particularly useful in the surgical setting where pathological correlation may become available such as local tumour staging.

Film Reporting Accuracy

Identify patients who have had a CXR within 24 hours of a CT. Report the films and then correlate with CT and establish your sensitivity and specificity.

Procedural Outcomes

This is most relevant within a block doing similar procedures or as a sub-specialising senior trainee, for example success and complications of biopsies. There are multiple audit templates available for biopsy, an example is found [here](#).

Focus region on ultrasound

Retrospectively review images from your ultrasound scans and check how often you correctly place the focus zone at the level of the region of interest.

If you are ever short of ideas for an audit or none of the ideas above take your fancy, there are now over 150 templates on the [AuditLive](#) website covering a wide range of topics which may be of relevance to you, both in sub-speciality areas or a broader context. The keyword search facility is a useful way to bring up a list of templates but the templates are also listed under broader topics e.g. Technique, Lung, Paediatric, MRI etc.

Asking local consultants or the local audit lead for any topics they think would be useful is also a sensible place to start when thinking of an audit project. Try and ensure it is a topic where something can be done in order to improve outcomes if these prove to be suboptimal. There is nothing more frustrating than spending time on an audit, only to get to the end and there being nothing you are able to do to improve the results in the future.

Making the Most of Audit Opportunities

There are lots of ways to maximise the work you have done on your audit. There is an annual audit poster competition as part of the RCR national conference and authors of suitable, original topics will be invited to submit a template. If you have carried out an audit on a topic not covered by the AuditLive templates you can also submit a template. A significant proportion of the templates have been authored by trainees and authorship can be cited on your CV.

Audits are also often accepted at sub-speciality meetings. Keep an eye out for opportunities to submit your project nationally and internationally. A good place to look when considering national audits or audits in general is [the RCR Audit/QI page](#), which contains lots of useful information.

The National Institute for Clinical Excellence, with their extensive guidelines, is another good starting point for audits. These can then be used to create and submit audit templates to RCR AuditLive.

Many trust intranets will contain helpful general information regarding audits, usually overseen by the Clinical Governance department. Trusts also keep data on previous completed audits, which may need repeating in order to complete the audit cycle.

Problems in Audit

This [video](#) by Karl Drinkwater on what makes a winning audit poster can be helpful in ensuring you achieve all the components required of a thorough and complete audit project. A common problem encountered by the Audit Committee reviewing abstracts for the ASM Audit Competition is the lack of published standards in submitted audits. Where

possible derive your standards from national/ international guidelines or, at least, the published literature.

While many people carry out audit successfully and undertake useful and interesting projects, it is not without its problems such as failure to complete the audit loop and deficiencies in standards. The following references highlight some of the problems encountered to help you avoid making similar mistakes:

- [John CM, Mathew DE, Gnanalingham MG. An audit of paediatric audits. Arch Dis Child 2004;89:1128-9.](#)
- [Guryel E, Acton K, Patel S. Auditing orthopaedic audit. Ann R Coll Surg Engl 2008;90:675-8.](#)

Quality Improvement

Audit always aims to improve outcomes and/ or patient care but these can be achieved in a variety of ways. In recognition of this and as part of a move towards a broader spectrum of quality improvement, organisations such as the Healthcare Quality Improvement Partnership and Institute for Healthcare Improvement are promoting a move towards quality improvement; some guidance on this subject is available from their website [here](#). Audit is a key component of quality improvement to ensure improvements are maintained.

The radiology training curriculum now recognises quality improvement projects alongside audit and trainees need to consider whether undertaking these will be more appropriate and rewarding. The following documents give some insight into quality improvement and the place of audit within it.

- [Hillman T, Roueche A. Quality Improvement. BMJ Careers 08 Apr 2011](#)
- [Riaz D, Hillman T. Going Beyond Audit. BMJ Careers 05 Jul 2011](#)

The College has further information [here](#) and hopes to expand on this.

Summary

There are several audits relevant to trainees that can be completed at different stages of training to demonstrate progression, others can benchmark performance and therefore useful evidence for ARCP, and some may help transition towards consultant practice. The AuditLive section of the RCR website is a great resource with many templates available to help undertake an audit and gives you the opportunity to have an audit template published, improving your CV.

Quality improvement is an important development in the field of audit that you must be aware of, understand and be prepared to undertake during your career.

Acknowledgements

Warm thanks to Rowena Warwick and Karen Duncan of the RCR Audit Committee and Joe Booth Executive Director of Specialty Training at the RCR for their helpful comments and advice in the preparation of this guide.

January 2020