

A STEP-BY-STEP GUIDE

# MAXIMIZING THE EFFECTIVENESS OF

# CLINICAL AUDITS



JANUARY 2011  
NAJLA FASHI, ANDREW MASON



Canadian Association of Radiologists  
L'Association canadienne des radiologistes

## DEFINITIONS

*“Audit is a clinical quality improvement process to improve patient care and outcomes through a systematic review of care against explicit criteria and the review of change.”*  
(Definition from the National Institute for Health and Clinical Excellence UK, 2002)

*“Audit involves improving the quality of patient care by looking at current practice and modifying it where necessary.”*

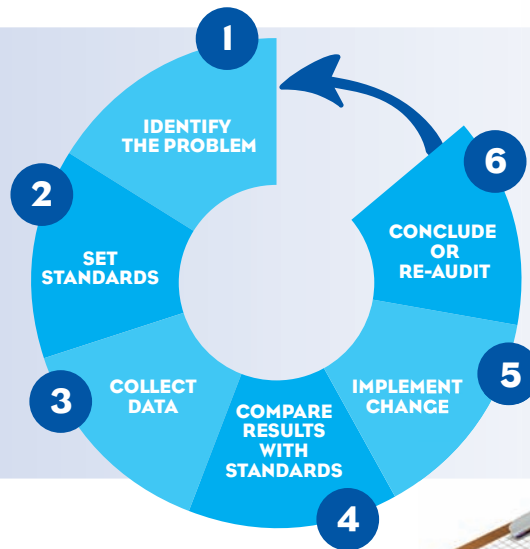
(Definition from the Department of Health, Working for patients. London: The Stationery Office, 1989)

Clinical audit is essentially all about checking whether best practice is being followed and making improvements if there are shortfalls in the delivery of care. It is not meant to be punitive.

A good clinical audit will identify (or confirm) problems and lead to effective changes that result in improved patient care.

## THE AUDIT CYCLE

The audit cycle consists of six steps, as they appear in the diagram below. Each of the steps is elaborated in further detail following the diagram.



## CHOOSING AN AUDIT TOPIC

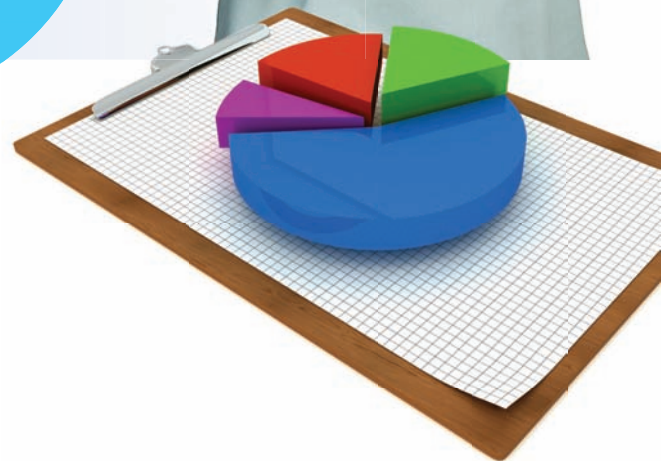
Choice of a topic should be based on consideration of the following:

1. An identified problem.
2. High cost, high-risk or high volume areas of practice.
3. Clinically effective treatment should have been published.
4. Widely available clinical guidelines from appropriate authorities.

It is not a good idea to undertake an audit project to satisfy curiosity.

## SETTING AUDIT OBJECTIVES AND STANDARDS

The first step is to decide what your overall purpose is for doing the project. You should then write it up as a statement that best explains what you want to happen as the result of an audit or possibly a question that you may want your audit to answer. Secondly, you need to define what steps you will take to achieve this goal and write these down individually. Collectively, these will form your audit objectives. Audit standards define the aspects of care to be measured in order to assess whether the current practice is appropriate and should therefore relate to your audit objectives. Please keep in mind that standards should always be based on the best available evidence.



## FORMING AN AUDIT TEAM

Clinical audits generally fall into the following two subcategories:

1. Monodisciplinary: These audits involve either doctors or nurses only.
2. Multidisciplinary: These audits involve more than one profession or discipline.

If your audit involves disciplines outside the scope of your practice, make sure they are contacted and consulted at an early planning stage. It is very important that your project is supported by colleagues who have authority and commitment to implement any necessary changes as indicated by the audit results.

## AUDIT STANDARDS

These should relate to your audit objectives and define the aspects of care to be measured in order to assess whether you are following the best practice. Standards should always be based on most up to date best available evidence in the literature.

It is a good practice to identify standards that are pre-existing in the form of evidence based literature. Research assistants at your Institute may help you with this literature research to identify best practice. It is most important to ensure that there is agreement with your standards locally before you audit. It is hard to improve practice without recognition of what best practice is.



## ETHICAL CONSIDERATIONS

Clinical audit projects are easier than research projects given that they do not need to be submitted to the Ethics Research Board for approval whereas research proposals have to be approved in order to be started. However, if there is any concern or doubt whether your proposed project falls into the category of research or audit, it is best to seek advice from the Local Research Ethics Board.

It must be remembered that whilst audit does not require formal ethical approval, it should always be conducted within an ethical framework. Principles of data protection should be adhered to.

## SELECTING AN AUDIT SAMPLE

In most audit projects, a cross-sectional, snapshot population sample is usually sufficient. The number should be large enough to be representative of your population but small enough to allow for rapid data collection.

Choosing a defined group of people who share certain characteristics i.e. have the same medical condition or may have undergone the same form of imaging is advantageous for radiology audits.

## PLANNING AND DATA COLLECTION

It is important to remember that the data you collect should only be what is required to measure prevalent practice against well defined audit standards. Extra data is usually not beneficial and may actually be a violation to the data protection act principles.

Your project may be retrospective or prospective. Data collection may involve audit proformas or may be directly entered onto a password protected computer.

It is extremely beneficial to be clear in your mind about exactly who is going to be responsible for what task and at what time.





## ANALYZING DATA

Your results should be compared with the audit standards. The following questions should be answered:

- How well have the standards been met?
- What were the reasons for failure to meet standard practice in some cases?

## PRESENTING YOUR AUDIT AND DEFINING AN ACTION PLAN

Once your audit has been presented to colleagues, an action plan needs to be devised. Consider answering the following questions:

- Is there a need to change practice?
- Do guidelines and standards need to be updated?
- Do we need to train or retrain staff?

## WRITING AN AUDIT REPORT

Write up your findings in a report as official documentation for the project. Please ensure sufficient detail is provided for the audit to be reproduced in the future. Action plan and summary need to be compiled from the project information and recorded.

## IMPLEMENTING CHANGES AND RE-AUDITING

There is no use performing an audit if no changes are made in order to improve practice. Repeating the audit (re-auditing) is important to ensure that the changes have been implemented.

## GETTING YOUR AUDIT PUBLISHED

You have invested time and effort in producing a valuable piece of work that others would benefit from hearing about. Therefore, consider disseminating knowledge by getting this published in a professional journal. A key to getting audits published is to make the methodology as clear as possible so that the lessons learned are “generalizable.”

Therefore, if a re-audit has been performed and has demonstrated how you have successfully improved practice, it is more likely to be published. Poster presentation at a conference is a good starting point.



## APPENDIX - AUDIT RESOURCES

### EXAMPLES OF AUDITS IN RADIOLOGY

[http://www.rcr.ac.uk/docs/general/other/Audit\\_Winner2009.html](http://www.rcr.ac.uk/docs/general/other/Audit_Winner2009.html)  
[http://www.rcr.ac.uk/docs/radiology/other/Audit\\_Winner2008.htm](http://www.rcr.ac.uk/docs/radiology/other/Audit_Winner2008.htm)  
[http://www.rcr.ac.uk/docs/radiology/other/Audit\\_Winner2007.htm](http://www.rcr.ac.uk/docs/radiology/other/Audit_Winner2007.htm)  
[http://www.rcr.ac.uk/docs/radiology/other/Audit\\_Winner2006.htm](http://www.rcr.ac.uk/docs/radiology/other/Audit_Winner2006.htm)  
[http://www.rcr.ac.uk/docs/radiology/other/Audit\\_Winner2005.htm](http://www.rcr.ac.uk/docs/radiology/other/Audit_Winner2005.htm)  
<http://www.rcr.ac.uk/abstracts.aspx?PageID=547>  
<http://www.rcr.ac.uk/abstracts.aspx?PageID=550>

### REFERENCES AND RESOURCES

[http://www.rsna.org/Quality/storyboards/2009\\_storyboards/index.cfm](http://www.rsna.org/Quality/storyboards/2009_storyboards/index.cfm)  
<http://www.rcr.ac.uk/audittemplate.aspx?PageID=1016>  
<http://www.rcr.ac.uk/audittemplate.aspx?PageID=1016>  
<http://www.clinicalaudit.mvm.ed.ac.uk-Mastering Clinical Audit>  
<http://www.rcsed.ac.uk>  
<http://en.wikipedia.org>  
<http://pdptoolkit.co.uk> Difference between Audit and Research  
Jones T, Cawthorn S.; *What is Clinical Audit?*. Evidence Based Medicine, Hayward Medical Communications, 2002  
*How to do clinical audit - a brief guide*, UBHT Clinical Audit Central Office. 2005

How to choose and prioritise audit topics, UBHT Clinical Audit Central Office. 2005  
Evidence-based Radiology: Steps 1 and 2—Asking Answerable Questions and Searching for Evidence *Radiology January 2007 242:23-31*  
Real-Time Measurement and Audit of Radiation Dose to Patients Undergoing Computed Radiography *Radiology October 2002 225:283-288*;  
Radiology Reports: Examining Radiologist and Clinician Preferences Regarding Style and Content  
*Am. J. Roentgenol.*, Mar 2001; 176: 591 - 598.

### BIBLIOGRAPHY

Principles for best practice in clinical audit  
Michael Rawlins  
Making use of guidelines in clinical practice  
Allen Hutchinson, Richard Baker  
Clinical governance  
Robert McSherry, Paddy Pearce, John Tingle

This Guide is not intended to establish a legal standard of care or conduct, and deviation from it does not, in and of itself, indicate or imply that such medical practice is below an acceptable level of care. The ultimate judgment regarding the propriety of any specific procedure or course of conduct must be made by the physician and medical physicist in light of all circumstances presented by the individual situation.

