

## How to write an audit

### *A guide for GP registrars submitting for Summative Assessment*

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The completed cycle audit is just one of the methods by which registrars can satisfy the requirements of the written submission of Summative Assessment. What follows is some guidance on how to construct your audit. If you wish to opt for the National Project Marking Schedule, then guidance notes for the various types of NPMS projects can be found on the website of the National Office of Summative Assessment [www.nosa.org.uk](http://www.nosa.org.uk).

You can also find full administrative instructions relating to the submission of your audit or project at [www.nosa.org.uk](http://www.nosa.org.uk). Please read these carefully to avoid the return of your submission on a technicality.

The audit assessment is assessed using eight marking criteria. When writing your audit, use these as the **headings** that you need to cover.

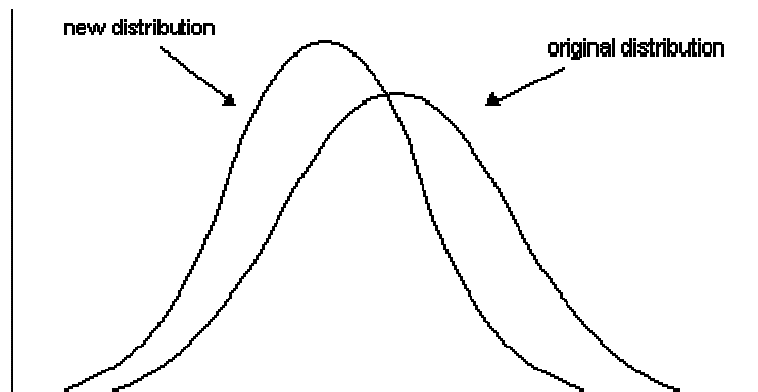
- 1. Reason for choice of audit** - Potential for change. Relevant to the practice.
- 2. Criterion or criteria chosen** - Relevant to audit subject and justifiable e.g. current literature.
- 3. Standards set** - Target towards a standard with suitable timescale.
- 4. Preparation and planning** - Evidence of teamwork and adequate discussion where appropriate.
- 5. Data collection (1)** - Results compared against standard
- 6. Change(s) to be evaluated** - Actual examples described
- 7. Data collection (2)** - Comparison with data collection 1 and standard
- 8. Conclusions** - Summary of main issues learned.

#### **Introduction**

There is tremendous emphasis on doing academic type research when you are at medical school but very little about applying all this work to your everyday job. What you are doing with audit is trying to improve the service and care that you offer to your patients. It's basically very easy, once you get the idea and is also really quite rewarding.

If you look at the real world and try to measure some aspect of your care, shall we say HbA1cs, and then you normally find that the results fall into something like a Gaussian curve. The idea is to improve the overall quality so that for your diabetic population the mean result

gradually moves into the normal range but at the same time the spread of the results (standard deviation) decreases.



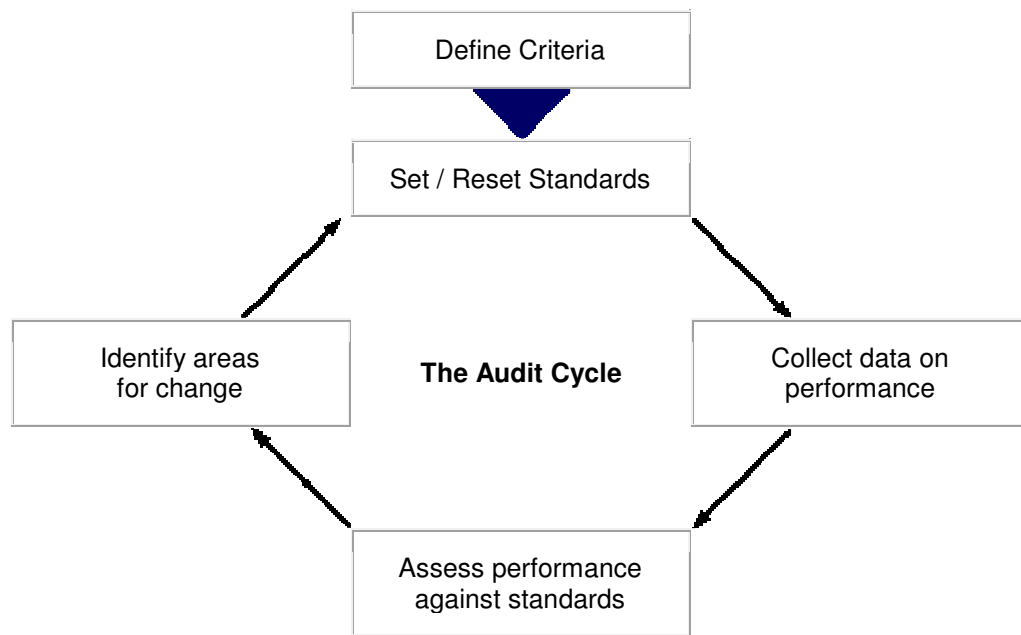
To easily see that things are improving you could decide for your standard that a certain percentage of the diabetic patients should have an HbA1c falling below a defined level. As you gradually improved the system of care then the percentage should increase steadily.

Audit can be divided into structural, process or outcome. As an example of a structural audit you might check whether certain basic procedures and guidelines were in place at your practice. A process audit would then be to see if these guidelines were being followed and an outcome audit would try to assess if the quality of care was being improved.

To do a process audit you should first decide on exactly what you want to look at, say registering new patients, and then with the help of the reception staff draw a flow chart of how they see it working.

	Patient contacts the Practice	←←	Procedure for what to tell the patient and what they have to do to register.
	▼		
	Patient Registers	←←	Procedure for filling out forms, logging on computer, informing HA, arranging for registration medical etc.
	▼		
	Patient seen for Registration Medical	←←	Procedure for registration medical, details to be put on computer, booking for other services, advise for any follow up etc.

## The Audit Cycle



We will next examine the eight steps of the completed cycle audit as specified for Summative Assessment together with the common errors made by registrars at each stage.

### Reason for choice of audit

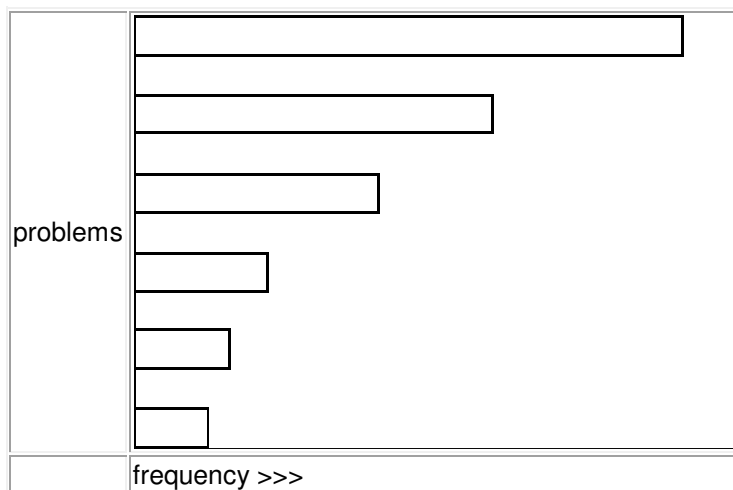
Please put some thought into this as a little effort at the beginning will make life a lot easier. We suggest that you try to involve other members of the practice as this makes the whole task more rewarding and means that your good work will be taken up and used after you have moved on.

An interesting exercise to do is to ask everyone what really causes them problems and jot these down. Ideally you can give everyone a piece of paper and ask if they would mind writing it down every time something goes wrong for a day or two.

Problem	tick every time it happens

You should find that when you plot them out for everyone they fall into a nice distribution with 2 or 3 things causing most of the problems.

## Pareto Graph (common things happen commonly)



As doctors we tend to like to audit the things we know about; usually clinical medicine. It is quite a good idea to look at the service from the patients' point of view and try to see what concerns them. Possibly an audit on how well the practice deals with registering new patients or whether they are being given the correct information would be good topics to tackle. You must get the agreement of staff because otherwise they will feel that they are being criticised.

The topic should be something that is important to the practice and offers scope for improvement. Audits conducted in hospital are acceptable provided they satisfy the marking schedule and are immediately relevant to general practice.

### Common errors:

- topic irrelevant
- no scope for improvement
- over-ambitious
- over-complicated

### Choosing a criterion or criteria

This really is the essence of audit. What you are trying to do is to find markers of how well you are providing a service. It is advisable to choose only 1 criterion or a very few criteria and try to keep them simple and easily understood by everyone. As an example you might have as a criterion " patients suffering from atrial fibrillation should be on Aspirin or Warfarin unless contraindicated ". This could easily be referenced to a number of papers and medical texts - put these on the back page. The criteria you choose should relate to the audit title and if **la** refer to references that you have found.

A criterion is a statement of quality. It should be both meaningful and measurable. A criterion statement requires a population, a measurable aspect of care and a quality marker. Take the following as an example:

**All patients with a BMI above 30 should have had their fasting blood sugar measured in the previous 2 years.**

*The population is all patients with a BMI over 30, the measurable aspect of care is checking the fasting blood sugar and the quality marker, checking this every two years.*

Similarly:

**All telephone calls into the practice should be answered within five rings**

*The 'population' is telephone calls into the practice; the measurable aspect of care, answering; within five rings is the quality marker.*

Note the all and should format in both these statements. Try writing some similar statements yourself; "All audits should contain a criterion statement"; "All registrars should submit their audits to the deanery on time", and so on!

**Common errors:**

- no understanding of a criterion
- not "inclusion criteria"
- too many criteria
- nested criteria
- criteria confused with standards

**Setting standards**

Setting a standard is simple. It's a figure, usually a %. Every criterion must have one and each standard must be justified.

The difficulty comes in setting standards in General Practice, as really very little is published. Your local Postgraduate Centre, Clinical Governance team or trainers' workshop might be able to help. It is also worth checking through the RCGP to see if other GPs have published anything. Try the Internet. I have put some web sites at the end, which might be worth a try. My experience so far has been that it can be well nigh impossible to find any similar work as a benchmark. One solution might consist of asking everyone in the practice what they think would be a fair standard and then taking an average. Do your best to find some published work if you can as it looks far better.

When you come to re-audit you will have a better idea of an achievable standard, which might be aimed at in the longer term.

**Common errors:**

- standards confused with criteria
- not justified
- 100% usually over-zealous

**Preparation and planning**

Teamwork is the key here. You must try to involve as many people as possible at the start so that it doesn't appear that you are having a go at someone. Certainly don't do a workload study that shows that the senior partner plays golf all week and sees very few patients. You won't be popular!

Proper planning is very important. This means writing down what you plan to do in a logical fashion so that problems can be anticipated at the start. I find that some Registrars collect loads of data but haven't thought why or defined their criteria first.

The classic system for audit keeps going round in a circle with improvement each time as you make changes to your system.

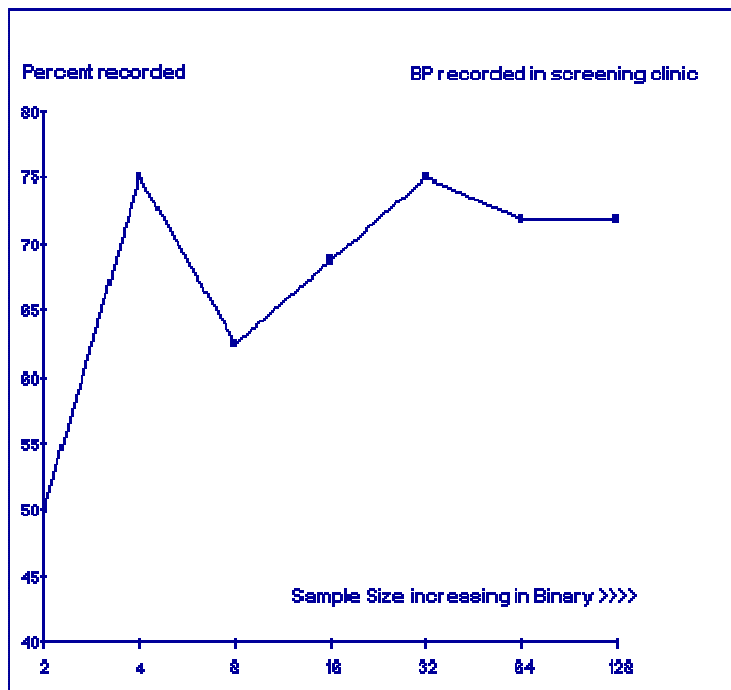
**Common errors:**

- I did it my way...

**Data Collection 1**

Sample Size

No doubt you were subjected to lectures on sampling and standard errors at medical school. Well forget them. Audit consists of getting a feel of what is happening without trying to be too clever. Sometimes the computer will look at everyone in the practice for you but very often you need to look at individual notes to get the data you want. Take this plot of a real study of men in a practice between 40 & 60 who had had their BP taken.



By the time 64 sets of records had been examined, there is a good idea of the result; a larger sample only gives marginal benefit.

sample size	recorded	percent recorded
2	1	50
4	3	75
8	5	63
16	11	69
32	24	75
64	46	72
128	92	72

Note, there's a difference between small numbers and a small sample. Auditing the patients who have had Mis in your practice might produce small numbers, but the condition is important and your results will be valid. Auditing 10% of your diabetic patients may give you larger numbers but constitute a meaningless sample.

### Presentation of data

This is really common sense and should not need a lot of explanation. Please don't put in sheets of raw data is my main message. Having done a lot of work it's a shame when the results are not presented clearly. Put in the figures that you have got with if possible a graphical presentation. Graphs are generally more easily understood. Hopefully you should at this stage have the agreed standards for the practice and the results that you have obtained. Compare the two.

#### **Common errors:**

- too much data
- irrelevant data not directly related to criteria
- data not compared to standard
- discrepancies unexplained

#### **Changes to be evaluated**

This is the time to present the audit to the members of the practice and ask for their ideas about how things could be improved. If you have got marvellous results then either you have cheated or the audit was not worth doing in the first place. You will find that there are lots of suggestions about how to improve things. Try to not be too ambitious at first but get one or two main points that everyone can agree on as proposals for change. Write down the agreed changes and how they are to be implemented in the practice within a set timescale.

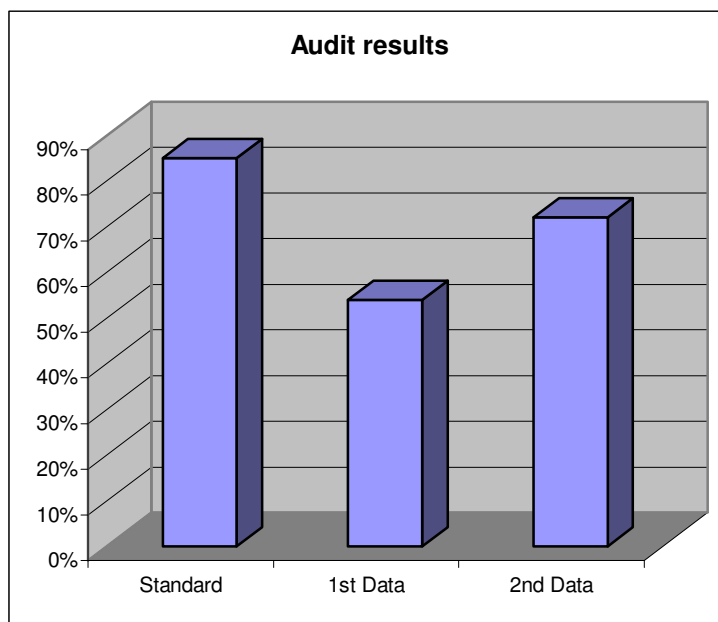
Ensure that changes are both short and long term. Ask yourself the question; "what will happen in the practice when I'm gone? Instigate systems changes e.g. a practice protocol or computer reminders, not just one off interventions such as a letter to patients.

#### **Common errors:**

- no changes described
- changes short term only

#### **Data collection 2**

This should be relatively easy as you use exactly the same method as previously. A nice way of presenting the result is to use a bar chart with the first and second results and the standard.



### Common errors:

- data 2 not collected in same way as data 1
- only the patients subjected to short term intervention counted
- results not compared
- comparison not adequately discussed

### Conclusions

A short summary of the main points learnt will be useful in clarifying your own thoughts and sharing ideas with others. It's rare to fail on this alone.

Good luck!

John Schofield and Tim Swanwick, London Deanery, March 2004

### Further reading

Making sense of Audit  
Donald & Sally Irwin

Research Methods & Audit in General Practice  
David Armstrong & John Grace  
(Oxford series 29)

Medical Audit in Primary Health Care  
Martin Lawrence & Theo Schofield  
(Oxford Series 25)

Medical Audit & General Practice  
Editor - Marshall Marinker  
(BMJ Publications)

### Web links

EQUIP - [www.equip.ac.uk](http://www.equip.ac.uk)

National Office for Summative Assessment - [www.nosa.org.uk](http://www.nosa.org.uk)