

## Clinical Audit and Peer Review in General Dental Practice

Geof Moulding  
Cheshire LAP Audit Adviser

## Definition of Clinical Audit

'clinical audit is the **systematic, critical analysis** of the **quality** of dental care, including the procedures and processes used for diagnosis, intervention and treatment, the use of resources and the resulting **outcome and quality** of life as assessed by both professionals and patients'

*the expected outcome is improved services and care for patients*

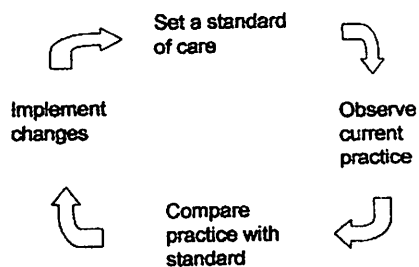
## SMART objectives

- Specific
- Measurable
- Agreed
- Reasonable
- Time-bound

## Aspects of Project Design

- topic selection
- standard setting
- data collection
- analysis of data
- change management
- benefits/further training
- re-audit
- time management
- confidentiality

## The Audit Cycle



## Standards

### RUMBA

- Relevant
- Understandable
- Measurable
- Based on existing practice
- Achievable

# **Audit and Peer Review in General Dental Practice**

## **Background**

The section is critical to any quality management system. From a professional point of view we must be able to justify what we do and why we do it. By adopting good practice from recognised bodies we can take the first step along the road. The second important step is to test how our practices perform against the standards we have adopted.

This section suggests standards for some areas of practice that you can adopt. It describes how Peer Review can be used to help in this procedure to ensure your own standards are acceptable.

Clinical Audit is then described to show how your adopted standards can be checked within your practice. There are many other clinical subjects not covered here and you should follow the process for these activities eg; Root Canal Crown and Bridge, Dentures etc. The process should be continuous and part of everyday practice.

## **Peer Review in General Dental Practice**

How many of us feel confident that our clinical standards and managerial systems are above improvement?

Most of us have developed our practice in the light of our own experiences and those of our colleagues who have shared their experiences with us.

To be honest our practice is a mixture of good ideas and a sprinkling of shortcomings. It would help us all if, as a profession, we could develop a more efficient way of disseminating the good ideas.

Peer Review is one way of encouraging communication between practitioners, of sharing good ideas and improving standards as well as improving job satisfaction.

Peer review involves a group of practitioners (usually 4 to 10) from various practices who meet regularly

- Choose specific topics for the meetings these are clinical and/or managerial
- Study the topics
- Discuss these topics
- Put forward points considered to be best practice in these topics
- Put forward their findings in a written document for the Local Assessment Panel.

These groups can be most beneficial, especially to the smaller practice and single-handed practitioners. The sharing of practice policies and clinical management skills can lead to widespread good practice within our area.

## **Getting Started With Audit**

### **Self audit versus group audit**

In principle, you could conduct an audit yourself without anyone else involved - but it needs a lot of self-discipline and is not much fun. Working with other people on a shared project can be much more interesting.

If you are in single-handed practice, then you will need to go outside the practice to involve other dentists. Within a group practice, you have a ready-made audit team, especially if you are already holding regular practice meetings. 'Practice meeting' can mean a lot of things —from a hasty consultation squeezed into a coffee break without any warning of what is to be discussed, to a meeting planned well in advance, at a time without patients so that everyone can be there, and with an agenda circulated beforehand and minutes (or a new agenda) afterwards.

Circulating minutes and agendas is not a big job but there are big benefits. They enable you all to be clear what is to be talked about, and then about the actions decided on. They also save time and avoid repeat debates of things already thought about and decided: 'We discussed this very fully last month and the minutes say we all decided to do X — so shall we move on to next business?' Circulating minutes and agendas ought to be someone's long-term job. Keep minutes brief — one side of paper ought to be enough to report decisions and say who is now to do what; and make sure the note goes round the practice within a day or two of each meeting.

An optimum audit group size is probably about five —enough to make the conversation interesting but not big enough to leave some people unable to get a word in. If your practice is bigger than this, think about dividing into smaller groups for audit exercises and compare notes afterwards. Try bringing people together who don't normally work with each other closely.

#### **Choosing a subject**

The audit process has six stages:

1. First, choose a subject — a specific activity;
2. Then decide what ought to be happening — define 'quality' for the chosen activity;
3. Observe what is actually happening and compare with what you decided ought to be happening;
4. Identify strengths and weaknesses and make changes to the way you work;
5. Observe again and see if things get better;
6. Finally, have another look at your quality definition and see if it needs to be modified in the light of what the first audit showed. And start the process again.

This is usually described as the 'audit cycle' but it is not much more than a common-sense way of asking and answering a question. It can be applied to any area of practice — to a specific clinical activity, or to aspects of practice management. Why do record cards go missing? Have we the right policy on taking 'routine' X-rays? Do we have a standard regime for soft tissue monitoring when patients come in for routine examinations? How is the new adult patient cared for? How long do our fillings really last?

**The possibilities are endless, which makes the first step, choosing a subject, quite difficult. As a guide:**

- Go for something that looks likely to benefit both patients and practice, to gain the commitment of all the people involved;
- Don't try to disguise as audit an issue that is really something for immediate management action;
- Be specific and not too ambitious, in either subject matter or time-scale;
- Choose something that you all have the skill to carry out. If you are not too hot on statistics, choose something non-statistical;
- Don't pursue hobbyhorses that will turn off other people in the practice.

Try to test candidate subjects by thinking through an audit from beginning to end, defining some objective quality standards, imagining what you would need to count or observe or ask, and how long it would take, which group member would be doing what, and what might emerge at the end.

The difficulty with audit is in coming to grips with self-examination and self-criticism. So try to anticipate the problems and potential embarrassments and think how to avoid hurting feelings. Choose the least risky project first, make sure everyone is happy with the choice, and let trust develop from there.

A useful source of subject ideas could be SAMS(2)\* — 'Self Assessment Manual and Standards'. Browsing through SAMS will give you a feel for how you might approach a quality definition too, and the observations you might make. But you could just as well start with your own blank piece of paper and invent your own project completely. Audit is a tool to be used as you need.

Reference: \*FGDP(UK) Self assessment manual and standards.

### Collecting information

**Once you have decided on the aims of your audit, the information you will need ought to be clear. There are several possibilities:**

- Examination of information already existing, in patient records, daybooks, or elsewhere in the practice;
- Information not kept routinely which has to be specially collected, prospectively;
- Information from outside the practice — DPB data, for example;
- Information from surveys of patients, or from interviews.

Basing an audit on information that already exists is an easy way to start and may point out a direction for further audits later, involving new data collection. But information from patient records can be tedious to extract unless you limit the number of cases. There may be problems with the quality of the data, too — a subject for audit in itself.

Prospective data collection needs organisation. You might identify a group of patients — children of a specified age, say — and put 'encounter forms' into their records to remind you to collect the information: when the patient attends the form is there waiting for you.

If you are auditing a non-clinical aspect of patient care a survey might be considered, either covering patients as a whole or targeted on particular groups. The important thing to remember about surveys is that you need answers from a high proportion of the people questioned to be confident that the overall findings are representative. If you survey two hundred patients but only get replies from fifty, then you cannot rely on the answers as a guide to what your patients think because the non-repliers may be quite different. Aim to get at least two thirds of your questionnaires back with intelligible replies. Leaving a few hundred question sheets in the waiting room and analysing a few dozen is not going to be useful. To avoid this problem and get answers from everyone asked you might use an interview instead. Brief practice staff on how to explain the questions in a consistent way.

**Whether you use a questionnaire in the practice, or post it to patients, or use an interview, don't cut corners on working out the questions or all the subsequent work could be a waste of time. The same goes for the specification of clinical data. Also, don't be tempted to ask more questions than you will have time to analyse.**

**You will need to plan the analysis of your data at the same time and this may lead you to define your subject more precisely. If you are thinking about an audit involving children but then find yourself wanting to analyse for different age-groups of children, then it might have been better to look at just one age-group to start with. Keep cross-analyses to a minimum.**

**Other points to think about are:**

- Using a computer for analysis — you can do a lot with a spreadsheet provided you design your questions carefully and pre-code the possible answers.
- Using rating scales, if the audit involves some sort of good/bad judgment. But keep the rating scale short; and a four-point scale is better than a five-point scale because there is no room to sit on the fence.

### **Cutting down the work**

If you choose to audit an activity that happens very often then you cannot observe every occurrence — it would be too time-consuming. Sampling is a way of spreading and cutting down the observation work.

When you take a sample, it is the absolute size that determines its usefulness. You need to look at enough cases to be able to draw a sound conclusion without the risk that the sample threw up an unrepresentative freak picture because too few cases were looked at. It doesn't matter, with a sample of a hundred cases, whether it is a hundred drawn from 2000 or a hundred from 20000: the risk of a freak result stays the same, depending on the underlying patterns in whatever is being sampled.

That means that there cannot be a general rule about what is an adequate sample size: it depends what you are looking at and how much it varies from case to case. Taking an extreme example, if all your crowns failed after five years then you would not need a very large sample to show this.

You need to worry more about sample size if you are planning to repeat an audit at intervals to see whether things are improving. For example, with two samples of 100, a change from 30% to

40% might be just the result of sampling chance. But with samples of 200, the same change could be statistically significant. The lesson here could be keep the audit plan simple and accept some limitations when you first start, rather than rushing out to buy a statistics book. You can settle for an audit giving you an indication of what is happening — depending on the subject, it may not be necessary for a measure to be totally and reliably representative. And if you decide on an audit project that needs a quite onerous measurement, then base your sample on what you can realistically find time for. If you can only manage to examine fifty cases and if you expect a fair bit of variation in the measure, then an audit of fifty cases is worth doing. Try it and see what it shows.

How you sample — and possibly what you sample — may depend on the way you keep your practice records. Are child and adult records together or separate? Are each dentist's patients filed separately? Or you might take a short cut: asking your DSA to make some random selections of patients or treatments is a perfectly respectable way of getting started.

### Presenting the results

At the end of an audit you need to report what was done and what was found out, to all the people who took part. Piecharts and histograms can help to make the findings clear, and may be better understood than tables. This is the real point of audit — to show what is happening currently and indicate where changes of method might be helpful.

But having completed a project within your own practice you might want to show the findings to colleagues outside: if so, remove references to individuals first. Audit groups between practices can work in two ways — either a group of practices all doing the same audit, for direct comparison, or doing different projects in order to explore the audit method. At this early stage, and unless you are single-handed, there is quite a lot to be said for using group discussions with other practices to think about methods, and keep comparisons within a practice. You might also think whether an audit could be interesting to patients. Visible quality systems impress. Imagine what a practice leaflet might say about — for example — the proportion of 12 year-olds in the practice who are caries-free this year compared with last. Many audits would not be appropriate for publicity, of course, but there are some interesting promotional possibilities, if you can work out a sound data collection system.

The BDA Information Centre can help in a lot of ways —with articles on audit methods, with background reading to help plan a particular project, and with follow-up reading when the audit shows where you perhaps need to think again about what you are doing.

## **Appointment Book & Time Management**

Any ideal efficient appointment system would have shorter patient waiting times and fewer wasted appointments. For many reasons this idealised system will never occur, but steps can probably be taken to improve the system we have at present.

- 1. Establish from a patient survey how long they consider is a reasonable time to wait (20 minutes seems generally acceptable).**
- 2. Recognise when patients are kept waiting longer and help them to pass the time.**
- 3. If running late advise patients when they arrive and give them the opportunity to rebook or as soon as a delay is experienced.**
- 4. Consider the use of "Emergency slots" where there are persistent difficulties.**
- 5. Review booking instructions if a persistent problem exists.**
- 6. Explain to patients why double booking (squeezing in patients) is not in any ones interests.**
- 7. Telephone patients with long appointments to confirm time & day**
- 8. Have a clear policy on missed appointments or late arrivals. Make it clear before hand if charges are to be made**

Reduction of waiting times reduces:-

- Patient anxiety
- Dentist stress
- Stress within the practice

This will lead to better:-

- Patient care
- Staff relations
- Quality of work
- Profitability

Individual practices and dentists will have different reasons for a less than perfect time-keeping system. Factors that may be involved are:-

- Accurate assessment of appointment time needed by dentist and dental nurse
- Appropriate system in place for managed emergency times
- Need for trained reception staff to allow adequate appointment times
- Need for patients to arrive early for the placement of local anaesthetic
- Need for professional staff to work within time limits
- Pressure from patients on reception staff to be 'squeezed in'
- Need to consider contacting patients by phone prior to long appointments
- To consider a system for charging for missed appointments and ensuring that patients are aware of the system that is in place

## **Audit of Patient Waiting Times**

### **DATA COLLECTION FORM**

- 1) ARRIVAL TIME .....
- 2) APPOINTMENT TIME ..... ROUTINE  
EMERGENCY  
CASUAL ARRIVAL
- 3) ENTER SURGERY .....  
EARLY / ON TIME / LATE
- 4) IF LATE: CAUSE OF DELAY
  - PATIENT ARRIVED LATE
  - ON-GOING DUE TO PREVIOUS LATE ARRIVAL
  - ON-GOING DUE TO CLINICAL PROCEDURE OVER-RUN
  - CLINICAL COMPLICATION
  - INSUFFICIENT TIME ALLOCATED FOR CLINICAL PROCEDURE
  - RECEPTION ERROR
  - OTHER
- 5) LEAVE SURGERY .....  
TIME IN SURGERY .....  
SURGERY TIME ALLOWED .....
- 6) SUMMARY  
PATIENT SEEN ON TIME .....  
EARLY ..... (MINUTES)  
LATE ..... (MINUTES)



## Audit of Record Cards

### DATA COLLECTION

20 records examined for:

**Organisation of  
information on patient  
records:**

No organisation

Poor organisation

Reasonable organisation

Excellent organisation

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

**Legibility of records**

Cannot read or understand  
records

Difficult to read or  
understand records

Some problem with  
reading and understanding

Easily read and  
understood records

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

**Completeness of  
records**

Patients Details

Name

Address

Post Code

Date of Birth

Home Telephone Number

Work Telephone Number

Other Contact Number

E-mail Address

Patient's doctor's name  
recorded on records

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Practice Visit Scoring System:

Clinical Records

6 main areas to consider for 10 randomly selected record cards 1 point per section.
 

1. Periodontal monitoring    2. Medical history    3. Bitewing surveillance    4. Intra-oral soft tissue examination    5. Clinical narrative    6. Use of estimate/treatment planning form

**Total max score for each record card is 6. Total all records and convert to a final % result. 80% required to satisfy adequate standard of record keeping..**

This visit evaluates contemporary professional standards in clinical record keeping in the 6 areas indicated above. (1) There is no attempt to examine other areas of record keeping such as occlusion, social history etc., nor is there any consideration of what format the information is recorded, nor what short-hand abbreviations are used. What is important is whether these elements are recorded in the patient's clinical notes **AND can easily be retrieved and demonstrated during the practice visit.**

- Periodo monitoring

The BPE chart has been **recorded** within the last year for adult patients

Medical History

Medical history is updated at each examination

Bitewing Surveillance

Patient records contain an appropriate caries risk assessment and bitewing radiographs taken at relevant intervals in line with current FGDP guidelines (2) and findings reported in case notes.

oft tissue examination

Notes for each adult clinical examination include clear reference to intra-oral soft tissue screening with negative findings recorded as well as pathology.

linical Narrative

Clinical notes include entries on type, dose and method of LA. Diagnosis and treatment options are discussed.

se of estimate form

The use of a fully completed FP17DC06 or equivalent for band 2/3 cases

	PERIO MONITORING	MEDICAL HISTORY	BITEWING SURVEILLANCE	SOFT TISSUE EXAMINATION	CLINICAL NARRATIVE	Use of FP17DC06	TOTAL
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
TOTAL							

(1) Faculty of General Dental Practitioners (UK) Clinical examination and record keeping. Good practice guidelines. London. FGDP(UK), 2001  
 (2) Faculty of General Dental Practitioners (UK) Selection Criteria for Dental Radiography. London. FGDP(UK), 2004

# Audit claims to avoid hassle

**D**oing an audit of "live" unsent paper forms or electronic data may be a new idea for many NHS practices but it could save later hassle.

Checking a small sample of forms FP17 or FP17W before submitting them to the NHS Business Services Authority (NHS BSA) gives you the chance to spot and correct any mistakes, which could prevent your primary care trust or health board (PCT/LHB) having to query your NHS contractual-claiming patterns. If a PCT/LHB has concerns about your claims it could lead to a visit from a dental adviser, a remedial or breach notice, and having to repay money.

And, while regular auditing is good practice for scheduled courses of treatment, it is a legal requirement for treatment involving radiographs.

So, set aside enough time to make these checks, especially in the last quarter of the financial year, when you are under pressure to meet contracted targets. The NHS Regulations in England and Wales require all forms and electronic data to be submitted to the NHS BSA within two months of the date of treatment completion or provision of an orthodontic appliance following case assessment. A claim for incomplete general treatment should be submitted as quickly as possible after either the patient fails to attend or has decided not to complete outstanding treatment.

## Declaration and responsibilities

Before the form or data is submitted to the NHS BSA, performers are required to make a declaration that the information is accurate and nothing is omitted. To avoid mistakes being made on any forms, contractors should ensure that their dental performers are up to date on all NHS rules and regulations.

## How to audit

Each month, look at 15 to 20 courses for each performer. Cover claims from each treatment band. Then cross-check the patient's records with the "live" unsent form. Also audit courses of further treatment given to the same patient in a short space of time and ask why a claim for a second course is being made. PCTs/LHBs would not generally expect to see a second course of treatment if it is for problems that should, or could reasonably, have been identified during the first course. Where a course has been staged for legitimate reasons, make a note in case of questions. And there are other claims that should be double-checked before submission.

## Free repair or replacement not required

There are limited circumstances where the contractor is not required to provide free repair or replacement. These are: where the contractor told the patient that the restoration was only temporary; where the contractor originally told the patient that a different form of restoration was needed for their oral health but the patient nevertheless asked for the restoration that was provided; where the restoration cannot now be satisfactorily repaired or replaced and a different restoration is needed; or where the repair or replacement is needed because of trauma.

## Urgent treatment

To support a claim for urgent treatment, the patient's notes must show that prompt care and treatment was provided because, in the dentist's opinion, the patient's oral health was likely to deteriorate significantly or the patient was in severe pain because of their oral condition. They should also say that only the care and treatment necessary to prevent that deterioration in oral health or address that severe pain was provided. Record the patient's symptoms and likely cause.

## Multiple courses of treatment

Explain in the records why was a patient was seen again soon after they had been treated at the practice. Multiple treatments should form the same course of treatment. For example, dentures should normally be provided as a single course even if new full upper and lower dentures are needed.

## Orthodontic checks

Orthodontists should check if a patient has been assessed before under the contract and, if so, why and when. For completed cases, check if Peer Assessment Rating (PAR) scoring has been reported on the FP170/FP17W.

## Sealants

For fissure-sealant and sealant-restoration claims check an entry has been made in the clinical data-set in part 5a of the form (for provision of fissure sealants as a primary preventive measure it should be box 3; for sealant restorations it should be box 6) and check that the clinical records support the data-set ticked.

## Treatment plans and data-sets

Make sure that a treatment plan (FP17DC, FP17DCO or equivalent) has been given to the patient if required by the NHS Regulations. And check that the data-set boxes on the FP17/FP17W – National Institute for Health and Clinical Excellence (NICE) recall date – has been recorded in part 7; and that best practice prevention offered according to *Delivering better oral health* has been entered in part 5.

Only submit claims that both contractor and performer agree are correct and complete. If it is found that a course may not be in line with the NHS rules and regulations the claim can be amended or withdrawn and corrections made.

## Make it a project

You could make reviewing your forms part of a formal clinical-audit and peer-review project to ensure that treatments claimed satisfied the NHS rules and regulations, and to identify training needs and to see if record-keeping needs to be improved.

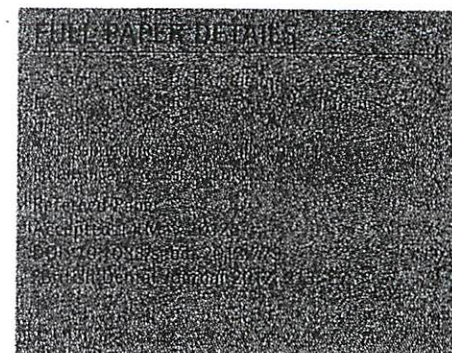
For further information, contact the BDA Business Team on [BusinessTeam@bda.org](mailto:BusinessTeam@bda.org) or telephone 020 7535 5864.

**BDA**

by **Anthony Earl**, an NHS adviser in the BDA's Business Team. Anthony advises members on all aspects of NHS general dental regulations and agreements



# Summary of: Evaluation of the end user (dentist) experience of undertaking clinical audit in the post April 2001 general dental services (GDS) scheme



P. J. Cannell<sup>1</sup>

**Introduction** A mandatory scheme for clinical audit in the general dental services (GDS) was launched in April 2001. No evaluation of this mandatory scheme exists in the literature. This study provides an evaluation of this scheme. More recently a new dental contract was introduced in the general dental services (GDS) in April 2006. Responsibility for clinical audit activities was devolved to primary care trusts (PCTs) as part of their clinical governance remit. **Methods** All GDPs within Essex were contacted by letter and invited to participate in the research. A qualitative research method was selected for this evaluation, utilising audio-taped semi-structured research interviews with eight general dental practitioners (GDPs) who had taken part in the GDS clinical audit scheme and who fitted the sampling criteria and strategy. The evaluation focused on dentists' experiences of the scheme. **Results** The main findings from the analysis of the GDS scheme data suggest that there is clear evidence of change following audit activities occurring within practices and for the benefit of patients. However, often it is the dentist only that undertakes a clinical audit project rather than the dental team, there is a lack of dissemination of project findings beyond the individual participating practices, very little useful feedback provided to participants who have completed a project and very limited use of formal re-auditing of a particular topic. **Conclusions** This study provides evaluation of the GDS clinical audit scheme. Organisations who propose to undertake clinical audit activities in conjunction with dentistry in the future may benefit from incorporating and/or developing some findings from this evaluation into their project design and avoiding others.

## EDITOR'S SUMMARY

The stated aim of clinical audit for dentists is: 'to encourage individual GDPs to self-examine different aspects of their practice, to implement improvements where the need is identified and to re-examine, from time to time, those areas which have been audited to ensure that a high quality of service is being maintained or further improved.'<sup>1</sup>

This aim is taken from the 2001 document<sup>1</sup> *Modernising NHS dentistry – clinical audit and peer review in the GDS*, in which the current system of clinical audit in the GDS was made a requirement.

I find the 'self-examine' element of the clinical audit aim above particularly interesting. Though prompted by a government requirement, a clinical audit surely allows and encourages dentists, and the whole dental team, to look at their own practices and their peers' methods to identify areas in which qual-

ity improvements could be made. Yes it might be a pain in the neck, but at the end of the day it allows for a large element of the self-regulation that the profession so craves.

We see that dentists have been involved in clinical audit for over a decade but who has been auditing the audit? Is clinical audit of dentistry in the NHS actually effective in improving patient care and quality of service? Are individual GDPs learning from their self-examinations and cross-practice audits? This paper offers the first evaluation of the clinical audit scheme since it became mandatory in 2001, examining individual research interviews from a representative sample of GDPs in Essex.

The detailed responses from the participants show up some interesting outcomes of auditing and the processes by which it is currently undertaken, in relation to anonymity, collaborative out-

comes, the audit's organisational framework, the involvement of the whole dental team and the sharing of findings. What is clear is that there was a feeling amongst the participating dentists that clinical audit is a good tool for quality improvement.

Of course this all begs the question: who audits the auditor of the audit? In this case it seems to be the journal's peer review process – which is a whole other discussion!

The full paper can be accessed from the *BDJ* website ([www.bdj.co.uk](http://www.bdj.co.uk)), under 'Research' in the table of contents for Volume 213 issue 5.

Ruth Doherty  
Managing Editor

1. Department of Health. *Modernising NHS dentistry – clinical audit and peer review in the GDS*. London: Department of Health, 2001.

DOI: 10.1038/sj.bdj.2012.806