This document contains twelve examples of audit methodologies:

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Why Undertake a Clinical Audit?

Undertaking a clinical audit encourages individual GDPs to self examine different aspects of their clinical practice, to implement improvements where the need is identified and 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.

What are the key points that I should remember?

MAKE THE AUDIT S.M.A.R.T.

S. SPECIFIC
M. MEASURABLE
A. ACHIEVABLE
R. REALISTIC
T. TIME – CAN BE COMPLETED ON TIME, AND NOT TAKE UP TOO MUCH TIME

Who should be in the proposed group?

- At least 2 GDPs from more than one practice. DCPs may also be involved (See guidance notes).
- One member of the group must be prepared to act as convenor.
- Concentrate on clinical treatment and management procedures in general practice where the range of expertise and peer review from fellow practitioners and DCPs will be most useful.
Who should lead each session?
- The peer review sessions will need to rotate around the different surgeries of each group member.
- Each member of the group should ideally lead one of the sessions.
- The lead GDP at each session will need to get the latest information, standards or guidelines on the topic and plan how the session will be conducted.
- Good sources of information are, the BDA Information Centre, peer reviewed journals, Faculty of GDP (Standards In Dentistry Manual), guidelines issued by specialist societies.

What needs to go in the final report?
- The methods used.
- What was covered in each session.
- The groups conclusions and recommendations on each topic area.
- The benefits the GDPs, DCPs and the practices had gained.

Suggested audit topics for the dental practice team
- Cross Infection
- Radiography
- Waste Disposal
- Medical Emergencies
1. **EXAMPLE PROJECT ON COMPLETE DENTURES**

**The Audit**

Patient Satisfaction with Complete Dentures

1. **Aim**
To find out if patients who have been provided with complete dentures are wearing them with satisfactory function, comfort and appearance.

2. **Background: why this audit is worth doing**
- Complete dentures are the only dental restorations that are not stabilised by natural teeth.
- Teeth that look well and function effectively are considered a minimum requirement for normal life.
- These two conflicting facts present a considerable challenge in the construction of full dentures to both the edentulous patient and to the dental surgeon and his/her team.
- The provision of successful full dentures depends on the practitioner meeting the patient’s expectations.
- Before undertaking treatment the practitioner must endeavour to identify expectations which can be solved or at least improved and identify expectations which can be met.
- This clinical audit may identify such problems.

3. **Who is involved and who will do what**
- GDP to prepare questionnaire and select patient sample
- Dental nurses to take out record cards and address questionnaires
- GDP to collate and analyse results
- Group discussion to agree conclusions of the audit and consider if changes could lead to improvements.

4. **Source Material to Ensure the Audit Has A Sound Evidence Base**
- Recent papers BDJ, Dental Update
- Standards in Dentistry FGDP (UK) 2006
- Current Edition of a standard Text

5. **Work out and write down your standard**
The standard needs to be measurable, realistic, achievable and agreed.
Given the nature of variables in full denture construction a self set standard of 80% overall patient satisfaction may be considered acceptable and achievable.
6. What items of data do you need to collect?
- Is the patient satisfied with the chewing ability of their new dentures?
- Is the patient satisfied with the comfort of their new dentures?
- Is the patient satisfied with the appearance of their new dentures?
- Overall is the patient satisfied with their new dentures?
- Was the patient satisfied with the way that they received their treatment?
- Does the patient have any comments they would like to make?

7. Analyse the results
- Compare them with the standard you originally set.

8. Conclusions
- Identify what improvements may be required
- If required plan the implementation of changes.

9. Plan to repeat the audit after a suitable period of time
2. EXAMPLE PROJECT ON ROOT TREATMENT

The Audit

1. Aim
The aim of the project is to determine the quality of the process and outcomes from endodontic treatments.

2. Background: why the project is worth doing
- Patients routinely expect a tooth to be root filled rather than extracted.
- Careful endodontic treatment should result in pain free teeth with excellent survival rates and providing a good structure for subsequent restorations.
- Good isolation, security of instruments in relation to the airway or swallowing and infection control minimizes hazards and maximizes outcomes.
- Good technique will ensure that the instrumentation performs to its optimum level and that mishaps such as instrument fracture in the root canal are avoided.
- Good technique should also ensure that the canal is filled as near to the apex as possible and that infected material is not pushed into the periapical tissues.
- Consider, also, the criteria you use in deciding to carry out root canal therapy.

3. Who is involved and who will do what.
- Dentists note reason for treatment, treatment components and assess x-ray and length scores.
- Dental Nurses process films and ensure they are mounted, named, dated and correctly sided. Also to ensure they are available with record card for assessment.
- If you are using computer spread sheets for your data analysis, appoint someone to transfer data etc.
- Team discussion to agree conclusions of your audit and (if required), improvements to be made.

4. Source Material to Ensure the Audit has a Sound Evidence Base
Information can be found by:
- Searching journals, recent BDJ, Dental Update, IEJ
- Looking into various Internet sites.
- Contacting the BDA library
- Contacting Faculty of General Dental Practitioners.

5. Work out and write down your standard.
The standard needs to be measurable, realistic, achievable and agreed
Look at what methods and techniques you currently use and see how these compare with recommended “best practice”. Are there things you could do to improve your methods and how might you implement such changes?
Useful reference material can be found in:
Standards in Dentistry. FGDP (UK) 2006.
The European Endodontic Society Consensus. [IEJ 2006; 39(12) 921-930]

6. Methodology.
- Decide how many meetings you will need to carry out the project and describe, briefly, what will be done at each meeting.
- Decide what types of root fillings you want to include in the audit (single root, multiple or both) and what size sample to use.
- At the time of the RCT, the reason is noted on the record card.
- Decide what data you are going to collect.
- Design a data collection sheet to allow you to record it.

7. What items of data need to be collected? Some examples of the data you might wish to collect.
- Reason for treatment.
- Tooth being treated.
- Initial radiograph.
- Method of isolation used.
- Working length radiograph.
- Mechanical cleansing / irrigation.
- File size and length.
- Check radiograph with master cone, prior to completion.
- Radiograph on completion.
- Report on length of root filling re apex and density of root filling in canal re any voids.

8. Analyze the results
Compare them with the standards set.

9. Conclusions
- Identify what improvements, if any, are required in your practice.
- Decide how changes will be implemented.
- The practice team should discuss and agree recommendations for improvement. You may wish to identify specific problems and decide how best to address them.
- A decision is also made whether to adjust the success rate percentage in the standard for future audits.
- Dates are agreed for introducing any changes.

10. Decide when you will re audit the topic.
3. **EXAMPLE PROJECT ON CROWN LONGEVITY**

1. **Why?**
Crows are an expensive item of treatment and their quality and success is important to both patient and clinician. Crowns are technically demanding and require a level of patient compliance. From the patient’s point of view, likely length of crown life will be important in value for money as well as health terms. Obviously, crown longevity will depend on many influencing factors such as the level of oral hygiene and the condition of the underlying tooth. But it could be possible to set yourself criteria and standards for the minimum length of time you would expect most crowns to last. An audit would give you some idea of whether you are meeting these standards and give you more confidence when answering patient’s questions.

Another – possibly easier – approach might be to focus on one or more specific aspects of crown quality. Try looking at “Standards in Dentistry” FGDP (UK) 2006, for ideas on quality criteria. This sort of audit can be helpful in giving a clearer indication of how improvements in performance might be made.

2. **Possible Aims**
The aims of a crown longevity audit might be:
- To set criteria and standards for the length of time that a crown should last
- To compare current practice with the standard set
- To collect additional information to suggest reasons for failure
- To make changes where appropriate
- To re-audit/monitor – possibly against a modified standard because the level of your performance proved to be significantly better than your original, self assessed standard. You might aim too low and find you are doing better. If so, adjust the standard, not the performance!

3. **Possible Standards**
A crown lasts at least 5 years – 80%
This looks straightforward but it can make data collection quite complicated if answering the standard’s yes/no question requires a check on the dd/mm/yy of placement and the dd/mm/yy of any treatment which brings about a failure.

Another way of setting a standard might be:
A crown is still in place in the calendar year 5 years on from the year of placement – 80%
This would mean that a crown placed in 2002 would need to be still there in 2007 – a rougher measure but possibly good enough for audit purposes.
4. Methods and Data Collection

Demands on your time in the practice are always high so it’s likely that you will set yourself a limited amount of time to complete an audit. This will be an influence on your audit design. The only option for crown longevity will be a retrospective audit, using some sort of sampling. Here are two possibilities:

Starting with a daybook

Have you got a daybook that allows you to identify patients fitted with crowns five years ago? If so, you might pull out their current records, see who was seen within the past year and identify which crowns were still in place at the last visit. The data will not be perfect but as a first step it will give you a feel for practicalities.

What are you going to do about the collection of additional information that would suggest reasons for failure? Records may show clearly what you did but be less clear about why. Again, will you change your recording of clinical information? What about the recording of laboratory names? It may also be useful to look at what is classed as a failed crown.

Does an asymptomatic crown with an apical area that is still present at 5 years represent a success?

Using patients attending as a sample

If you do not have a daybook, use as your sample all patients who you see in the next one or two weeks. It will be difficult to predict how many patients with crowns fitted 5 years or more ago will come to you so you might leave the duration of the audit flexible – decide how many cases you want to catch and go on collecting data until you have the amount you want.

With either method you will probably be able to give most of the searching and recording work to your nurse. Looking at each record, was a crown fitted in a defined period (1994, say)? Did you fit it or another dentist – and do you want to include other dentists’ crowns or just your own? Is the crown still there or has it been replaced or the tooth extracted?

5. Possible Problems

We have also mentioned the problem of setting realistic standards on the basis of not much more than gut instinct in the first place. But you have to start somewhere – and this sort of treatment outcome audit is potentially the most valuable of all.

6. Other Possible Related Audits

- An audit of crown impressions with relation to air blows or drags, are the gingival margins clearly defined?
- How often does the occlusion require adjustment on fitting a crown? What are the reasons for this? Are they due to laboratory errors or a lack of occlusal registration? What is an acceptable standard?
• Is the emergence angle correct or do gingival problems occur around the crowns? Is this due to insufficient reduction or impression technique?

7. References to use
Standards in Dentistry manual FGDP (UK) 2006.
British Society for Restorative Dentistry – Guidelines for Crown and Bridgework
Adapted from BDA audit example
4. **EXAMPLE PROJECT ON RADIOGRAPHY**

**The Audit: - An Audit of Radiographs taken in General Dental Practice**

Dental Radiography is a popular audit topic for practitioners to undertake. It is a requirement to undertake Radiography audits in Dental Practice as part of the IR(ME)R regulations and this audit will also form part of the Quality Assurance programme for practices. Radiography audits can be undertaken at many different levels.

The aim of any audit in dental radiography is to ensure the safe use of radiation within the practice and patient safety. The level at which you want to check, decides which audit to undertake.

**Aim 1 (Audit 1- easy audit)**
A basic audit on radiography will check compliance with Local Rule requirement of IR(ME)R.

**Objectives**
- To review IR(ME)R requirements for Local Rules and protocols in a General Dental Practice setting.
- To design a data sheet to check requirements
- To check that all staff are regularly trained in IR(ME)R regulations.
- To set protocols or systems within practice to ensure compliance with IR(ME)R which can be used as part of the practice Quality Assurance system, so as to prevent duplicity.

**Aim 2 (Audit 2- Medium difficulty)**
An audit of written procedures in relationship to IR(ME)R.

**Objectives**
- To review IR(ME)R requirements for written procedures in a general dental practice setting.
- To review the set standard for radiography quality
- To undertake a Quality Assurance audit on a set number of dental radiographs, and check compliance with a set standard.
- To produce a data sheet in relationship to both the quality assurance and the record keeping requirements for radiography
- The audit will ultimately check that there are systems of quality assurance within the practice to ensure that the safe use of radiography is undertaken.

**Aim 3 (Audit 3- level difficult)**
The most difficult audit on dental radiography is in relationship to radiation exposure time intervals.
There are guidelines in IR(ME)R that suggest intervals between exposure, i.e., frequency of Bitewings or number of periapicals. An audit of radiograph justification would allow comparison to these standards.

**Objectives**

- To review IR(ME)R standards for justification of radiographs
- To undertake a retrospective audit of patient records to check how the practice compares to the set standards.
- To check practice protocols on radiation exposure justification.
- To amend and update protocols within the practice.
- To produce a data sheet to allow record keeping review for justification.

In all of these audits

**Method**

Be clear on the aim of the audit. Radiography is a huge subject, and time management of the audit is vital so as to allow an effective audit. Keep it SIMPLE, do not try and look at all areas as the audit will run away with you, and the results will not be as good.

**Recommended reading:**

- National Radiation Protection Board (NRPB): Guidelines on Radiology Standards for Primary Care Dental Care, 1994
- Ionising Radiation (Medical Exposure) Regulations 2000.
- Ionising Radiation regulations 1999.
- Selection Criteria for Dental Radiography: FGDP(UK) 2004
- Standards in Dentistry FGDP(UK) 2006
5. EXAMPLE PROJECT ON ANTIMICROBIAL PRESCRIBING IN GENERAL DENTAL PRACTICE.

1. Background.
The prescribing of antimicrobials is a very important aspect of patient care. This project will enable groups to assess their current prescribing protocols and compare them with “Best Practice” recommendations. The group will also be able to assess the effectiveness of their prescribing on the patients they treat.

2. What To Look At.
These are some examples of topics you may wish to consider as part of your project and you may wish to include other topics of your own choice.
- What antimicrobials do we use?
- What doses?
- Why do we use them?
- What evidence do we have to support our criteria?
- How do our criteria compare with “best practice” recommendations?
- How successful is the treatment?

3. Who Will Be Involved In The Project?
- Dentists.
- Nurses and/or Reception Staff to help with patients’ follow-ups.
- Patients.

4. What are the Standards and Evidence Base?
In order to determine the current best practice recommendations, a search will need to be undertaken. The BNF is one example of literature that will provide useful information. It is also recommended that you find out what information is available from such bodies as the Faculty of General Dental Practitioners, BDA etc. A search of relevant articles in leading Journals should also be undertaken. Details of the references you use to support your project will need to be listed in your application.

5. What Outcomes Should You Look To Achieve?
- Improved patient care by ensuring they receive appropriate treatment, which is supported by “Best Practice” recommendations.
- Consider your current rationale and prescribing protocols.
- Identify areas for improvement and other day to day problems.

6. What methodology should be used?
- Decide how many meetings will be required and give brief details of what will be done at each meeting.
CLINICAL AUDIT AND PEER REVIEW
COOKBOOK
A GUIDE TO UNDERTAKING A CLINICAL AUDIT PROJECT

- The group should discuss their current prescribing methods before reviewing the research material.
- Design and pilot an information sheet for collecting the data.
- Decide on sample size and when the survey will be commenced. (At least 30 patients).
- Consider outcomes of treatments given with prescriptions. Look at best practice guidelines in all cases to see if the prescription alone was appropriate or if some other intervention, with or without prescription is indicated.
- Ensure all patients are followed up and monitored.
- Compare your prescribing profile with the recommended “Best Practice” procedures.
- Consider changes you need to make and how you will implement and assess these.

7. What data do you need to collect?
These are just some examples of the information you may wish to include in your information sheets;
- Patient details.
- Diagnosis.
- Medication prescribed, dose and duration.
- Was the prescribing of antimicrobials appropriate for the diagnosed condition.
- Other treatment given for the condition.
- Some way of assessing the patient’s degree of pain so that a follow up scores can be taken to assess outcomes.
- Any general comments e.g. Allergies, drug interactions etc.

8. What Should Be Included In The Final Summary?
The results of the project will need to be presented in an anonymised way. The following topics should also be mentioned.
1. Brief details of what was discussed at each group meeting.
2. Details of any problems that were identified and how they were dealt with.
3. Details of improvements made and how they were implemented.
4. The educational benefits that the group members identified from the project and any other areas.
5. The results of the group must be collated into your final summary. Completion forms should, preferably, be filled in by computer and submitted electronically.
6. **EXAMPLE PROJECT ON MANAGEMENT OF WASTE IN GENERAL DENTAL PRACTICE.**

1. **Introduction**

The Hazardous Waste (England and Wales) Regulations 2005 and List of Wastes Regulations 2005 places a duty of care on dentists as to how healthcare waste should be managed. Each dental practice should have in place a healthcare waste policy which identifies who is responsible for healthcare waste and how it should be managed. The policy should identify waste as hazardous, offensive or trade. How the waste is segregated, stored and handled should be documented along with the practice arrangements for collection and record keeping. **All clinical waste should be disposed of according to the regulations.** Where hazardous waste production exceeds 200 kg per annum it is necessary to register with the Environment Agency.

**Possible Source Material:**
- **BDA** - Advice sheet 3 Health & Safety Law for Dental Practice, Practice Compendium, Healthcare Waste Management Advice Note 76 (Revised Nov 07)
- **H&S Executive** - An Introduction to Health & Safety:
- **Denplan** - Practice Quality Programme Handbook.
- **Internet** - search for papers using PubMed

2. **Aim**

To audit the waste disposal procedures of the practice/practices and obtain observational evidence of their compliance with current good practice guidelines and legal requirements.

**Objectives**
- To review the literature to identify current good practice and legal requirements for waste disposal.
- To use the information gathered to set a standard for complying with waste disposal requirements.
- To design a sheet for the collection of data relating to audit of the waste disposal arrangements.
- To audit the waste disposal arrangements in the practice/practices and to record the results on the data collection sheet.
- To analyse the results and compare them against the standard and identify areas of weakness or non-compliance.
- To implement changes/improvements in identified areas of weakness or non-compliance.
- Plan to re-audit in three years.
3. Suggested Method
Use the literature review to identify the legal requirements for waste disposal in General Dental Practice. Current good practice will be compliance with the legal requirements. The standard set will need to be 100% compliance with the legal requirements. Audit each of the practice’s/practices’ systems and processes for waste disposal and record the results onto a data collection sheet. Compare the results against the standard. Identify any areas of non compliance and plan implementation of the changes necessary to meet the legal requirements.
7. **EXAMPLE PROJECT ON CROSS INFECTION CONTROL IN GENERAL DENTAL PRACTICE.**

1. **Aim**
   To carry out a review of the cross infection control procedures used in dental practice.

2. **Background**
   Effective cross infection procedures are vitally important. The GDC includes cross infection as one of the core topics for GDP and DCP recertification. Changes are made to the requirements at regular intervals and it is important that practices have effective measures in place and keep up to date with new procedures and recommendations. Patients need to feel confident that they are treated in an appropriate way by well trained professionals and tend to be more aware of what the requirements are. Being able to display how good they are in following correct procedures can be a useful marketing tool for a dental practice.

3. **Who is involved and what are their roles?**
   Every member of the team has a role to play in cross infection procedures. Involve the whole group in deciding how to plan the project; collect data; research the topic and develop new protocols. Remember to include everyone in developing protocols. Make sure everyone has a stake in the project. If they feel joint owners of the project and its outcomes, they are more likely to make it work.

4. **Some Suggested Research Material.**
   - BDA A12 Information Sheet.
   - BDA A3 Advice Sheet.
   - Schulke & Mayr. (run postgraduate courses and produce excellent hand outs).
   - Professional Indemnity Societies.
   - GDC

5. **Setting a standard.**
   Use the above to help you set standards. Remember that some standards are legal requirements and will need total compliance.

6. **What items of data do you need to collect?**
   Carry out a baseline assessment of what you already do. A starting point could be your written practice cross infection control policy.

   Are there updated medical histories of patients?
What protocols do you have for cleaning, disinfecting and storage of instruments?

Use of single use items.

What about the equipment? Consider such things as use of autoclaves; quality of water in dental units etc.

What measures do you take to protect staff and patients? E.g. Immunisation of staff; personal protective equipment;

What safe working procedures do you use e.g. handling equipment, re-sheathing LA syringes, hand cleaning/use of gloves; disposal of waste?

Do you have cross infection training as part of the induction for new staff?

Are there written protocols and appropriate records?

This is clearly a very large topic and you may wish to carry out a general overview or perhaps take a more in depth look at areas that you feel are more appropriate for your practice.

7. Analyse the results.
Compare your results with the standards you have identified.

8. Conclusions.
Identify your strengths and weaknesses.
Decide how you can improve and discuss ways of introducing changes.
Develop written protocols that all team members can help to formulate and sign up to.
Review any areas of concern to see if changes have been effective.
When you write up the project include details of all areas reviewed and research material used. Include your results, analysis, outcomes and include copies of any data collection sheets and written protocols.
8. EXAMPLE PROJECT ON PERIODONTOLOGY IN GENERAL DENTAL PRACTICE

1. AIM.
To carry out a review of how patients’ periodontal needs are managed in general dental practice.

2. Background.
Most patients require periodontal treatment. During this project we will determine the level of knowledge of participants about the various forms of periodontal disease. We will look at how we record disease in patients and if patients are made aware of their periodontal status. This will be underpinned by good record keeping including details of treatment planning, treatment and compliance. The group will need to look at how they currently perform as well as where and how they can improve. By carrying out this project, participants can ensure that they improve their knowledge and have robust protocols which allow them to provide a high standard of care.

3. Who is involved and what are their roles?
GDPs, Hygienists, Therapists. To help with baseline assessment of knowledge of disease process. Decide on sampling methodology. Develop data collection sheets and protocols. Nurses. Assist in above and help in record keeping and completing data collection. It is important that all members work as a team and are able to bring their ideas to the group.

4. Some suggested research material.
Faculty of General Dental Practitioners (Booklet on record keeping in general dental practice and Standards in Dentistry). Dental Protection Society. (Risk Management Leaflets). BDJ and other journals. Standards in Dentistry [FGDP (UK) 2006] Search on ‘PUBMED’

5. Setting Standards.
Use the research material to set the required standards. The standards should be realistic and achievable.

6. Data Collection.
First of all do a baseline assessment on the level of knowledge about the topic. This could mean an assessment and update of the classifications of periodontal disease and indices. Measure your current performance. To do this you will need to develop a data collection sheet. This may need to be piloted to ensure its effectiveness. Involve your DCPs in collecting and discussing the data.
Carry out a retrospective audit of a randomly selected representative group of patients for each clinician. Data you collect should include; current medical history; risk factors; periodontal charting; radiographs; diagnosis; treatment plan formulated; patient informed. You may have others you wish to include.

7. Analyse the results.
Compare your results with the standards you have set.

8. Conclusions.
Present your anonymised results and analysis for each clinician. Identify your strengths and weaknesses. Decide where and how you can improve and agree methods and protocols as a group. Re-audit to measure the effects of any changes made.
9. **EXAMPLE PROJECT OUTLINE FOR A RETROSPECTIVE AUDIT OF REFERRAL LETTERS.**

Referral letters are frequently the only method by which information is transmitted between general dental practitioners and the hospital-based services. It is essential that referral letters and the replies, which provide a crucial link between GDPs and specialists, are of the highest possible standard. Referral letters need to contain both administrative data and clinical details.

The referral process should be efficient and effective for the patient, the referring GDP and the recipient of the referral letter.

Opinions regarding what constitutes a reasonable standard of referral letter may vary between specialists and GDPs.

The primary objective of this retrospective audit will be to assess a random sample of referral letters sent for their quality and appropriateness.

1. **Aim**
   To audit a sample of the referral letters sent to specialists for their quality and appropriateness.

2. **Objectives**
   - To search for and review relevant papers from the literature. Use PubMed www.ncbi.nlm.nih.gov
   - To use the literature review to prepare a standard that defines appropriate referral.
   - To set a standard that lists the details and information expected to be included in a referral.
   - To design a data collection sheet.
   - To review retrospectively a random sample of referral letters for appropriateness and quality and compare them against the standards set.
   - To analyse the results and identify weak areas.
   - To consider how improvements could be made and implemented.

3. **Suggested Method**
   Use an on-line literature search using PubMed for ‘Dental Referral Letters’. Apply limits, human, English and dental. Obtain and read copies of relevant papers and use the information gained to set the standard for the audit. Other useful sources include: Standards In Dentistry, FGDP (UK) 2006; Dental Indemnity societies and Hospital Trusts’ referral protocols.

   Decide what data is to be collected and design a data collection sheet.
Select a random sample of referral letters sent by members of the audit group. Assess each referral letter against the standard set and record the results onto the data collection sheet. Analysed and discuss the results. Identify areas where improvements may be required and consider how to effect such improvements. Finally make a list of conclusions.
10. OUTLINE OF PROJECT ON TIME MANAGEMENT.

For practitioners probably one of the biggest problems faced is the need to manage their time to ensure maximum efficiency.

Most time management experts seem to agree on one thing. They say that one of the first things people need to do in order to manage their time is to determine how they use the time now. This is where this audit fits in.

A time audit is the tool used to determine or measure how practice time is used. Once a time audit has been completed the results can be used to identify areas in the use of time or in the practice processes where changes could effect an improvement in the management of practice time.

Suggestions for planning a time audit in order to record where time goes

1. Efficient use of the clinical time.
   • the appointment length versus the clinical procedure to be completed
   • or who manages our appointment times. E.g. RCT – 15 minutes: alginate impressions 45 minutes
   • or who is responsible for the lab work return date

2. Wasted time:
   • late cancellations
   • or missed appointments

There may be other aspects. Each practitioner can determine what aspects to audit.

To understand where the time goes, it is important to assess how it is actually used. One way of doing this is to keep simple operating records and for this a yardstick or measure is needed in order to evaluate our use of time. So the purpose of this audit is to provide a yardstick or measure of clinical time.

An Audit Outline needs an aim, objectives and a method.

1. Aim.
   To carry out an audit of the use of clinical time in General Dental Practice

2. Objectives.
   These are the steps or processes used to carry out the aim.
   • Review literature
   • Set standard
3. Method: - This sets out how the objectives are carried out
- Review Literature
  We can use the internet. PubMed is a useful site. BDA? Denplan?
- Set Standard
  Remember the Audit Cycle.

For a first-time Time Management Audit, it may necessary to set a self standard as there are no previous yardsticks or measures to use as the standard. The outcome of this first audit will however give a measure or yardstick which could in future be used as the standard against which subsequent time audits could be measured

- Sample Size
  The sample size needs to be sufficient to be representative of how time is spent. If a one week period only was recorded then it is very possible that the week selected would turn out to be atypical. To obtain a balanced sample it is suggested that the minimum time recorded should be a four week period.
Data Collection
Design a sheet on to which clinical activity and inactivity over each week period can be recorded. This process in itself will give a start in observing time usage more effectively. What is to be recorded? Some suggestions are: - length of treatment session, type of treatment planned, cons, periodontics, prosthetics, surgery, endodontics, cancellations, missed appointment, NHS or private. Possibly UDAs complete or UDAs lost. The completed data collection sheets become the results.

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- Analysis of Results
To analyse the results it is probably easier if a summary of the results or data collected is made onto another chart or summary sheet.
Once these charts are completed they can be used to try to identify areas where improvements could be made.

- Evaluation and Conclusions
- Outline conclusions: - weaknesses or problems identified.
- Draw up possible plans for effecting improvement.

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<tr>
<th>Possible Problems</th>
<th>Possible Solutions</th>
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The final part is to consider how to implement the possible solution that would lead to improvements in the use of practice time.
11. **EXAMPLE PROJECT ON AN AUDIT OF CLINICAL RECORD KEEPING**

1. **Aim**
To establish if clinical records are up to date and contain all the necessary information required to comply with current guidelines.

When carrying out an examination often we go through the process of checking various facts about our patients and observing through examination various structures, however these checks and examinations are not always recorded fully within our records.

It is the purpose of this audit to check what is recorded and implement change where necessary for the benefit of patient and practitioner alike especially with regard to medico-legal issues.

2. **What should be recorded:**
- Patient details including date of birth, address and postcode, possibly even a contact telephone number.
- Radiographs: notes made of reason and report made?
- Medical History record
- Medical Alerts.
- Oral Cancer risks noted e.g. smoking and alcohol consumption.
- Periodontal examination: BPE or more
- Extra oral examination: Nodes, TMJ, asymmetry
- Intra oral examination: Tongue, fauces, floor of mouth, palate, mucosa
- Hard & soft tissue examination
- Treatment plan.
- Treatment options noted.
- Consent obtained.
- Recall timing noted (NICE guidelines followed).

These headings are for guidance. The group should agree its own headings.

**Decide and agree on a standard**

Some standards already exist as to the appropriate timing for bitewing radiographs and what should be recorded, but it is for the practitioner(s) to agree appropriate standards.
Data collection

An example of a data collection sheet is shown below. This is not meant to cover all areas and you should modify it to suit your requirements.

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<th>Number</th>
<th>Patient Detail</th>
<th>Patient Identifier</th>
<th>DOB</th>
<th>Postcode</th>
<th>Medical History</th>
<th>BPE updated</th>
<th>NHS/Private status</th>
<th>Exemption</th>
<th>Extra oral</th>
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3. Presentation of results.
Present the results in a way that the group can understand, but ensure anonymity where appropriate.

Agree where change needs to occur.

4. Implement the change.

5. Re-audit as appropriate.

6. References.
- Spahl TJ. *The pen: the clinicians most powerful “handpiece”* 1997 Funct Orthod 14:26-28
- FGDP(UK) *Standards In Dentistry* Faculty publication 2006
- British Dental Association *Clinical Governance Pack*
- Dental Defence Union
- Dental Protection Society.

This list is purely an example and should merely form the basis for further study.
12. EXAMPLE PROJECT ON HEALTH AND SAFETY IN GENERAL DENTAL PRACTICE

1. Aim
To ensure the whole practice team have a thorough understanding of the Health and Safety requirements for General Practice.

2. Background
Health and safety legislation protects patients and staff and it is a legal requirement under the Health and safety at work act 1974. Below is a list of many of the aspects, but is not exhaustive.

- Riddor
- Cossh
- Display screen
- Portable appliance testing
- Fire precautions
- First aid and medical emergencies
- Infection control
- Manual handling
- Mercury spill hazard
- Pressure vessels
- Protective equipment
- X-ray registration and testing
- Risk assessment
- Safety signs
- Waste disposal
- Working environment
- Water supplies

3. Who is involved?
All members of the dental team have a responsibility to ensure that practice policies and guidelines are adhered to although the ultimate responsibility is that of the employer. As with any audit it is important to ensure that all members of the team are kept informed of developments and feel that they play a role in the development of any future policies and procedures.
Involve the team in developing a data collection sheet and in discussion of results.

4. Research Materials
BDA advice sheet A3 (Health and safety law for dental practices)
HSE guidance and Act
NRPB radiological guidance
5. Standards
Most Health and Safety requirements are law and therefore require complete compliance (a guide is available at the end of the advice sheet A3).

6. Data collection
Most of the data collection will revolve around whether you comply with the Act and other aspects of Health and Safety Law. There are numerous aspects to Health and Safety and it should be remembered that it does not just involve having a piece of paper with a written policy on, the act also requires that procedures are in place to ensure that policies are carried out within the practice and regularly updated.

Don’t forget to ensure that part of your audit includes checking that the practice has an induction or training procedure for new members of staff who may not be conversant with the act.

As a starting point look at what requirements there are within the act (again the guide at the back of the A3 document is a good starting point) then assess how the practice complies compared with these standards.

In the data collection sheet perhaps consider collecting data on:
Name of policy: fully or partly written
Compliance with policy: full or part
Induction procedure in place: full or part

Once this data is collected look for where the gaps are and devise a plan to implement and fulfil the requirements.

Anonymise and discuss the results and improvements with other members of the group. Ensure all members of the team are involved.