

A Brief Introduction to Clinical Audit

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What is clinical audit?

Clinical audit is essentially a quality improvement process; it aims to improve patient care and outcomes of care. Audit is achieved by conducting a systematic review of care which may have been set against pre-determined criteria, suitable /changes can be implemented and the effect of those changes can be re-evaluated.

History of Clinical Audit

Florence Nightingale is regarded as one of the earliest pioneers of clinical audit. She was appalled at the conditions patients experienced at the barracks hospital in Scutari in 1854 and kept meticulous records of the mortality rates among the wounded patients. She applied strict standards of hygiene for the hospital and its equipment and was able to demonstrate a fall in mortality rates from 40% to 2%.

Clinical audit was further developed by Ernest Codman. He is frequently quoted for the remark “..collect information on all cases to determine whether treatment has been successful, and then to inquire ‘if not, why not (sic)’”. It was reported that his initiative met with “the resistance of arrogance, the molasses of complacency and the anger of the comfortable disturbed”. Codman’s work ultimately developed into the demand for the setting of national outcomes for medicine by Hey Groves (*BMJ*. 1908; Oct 3).

More recently, the 1989 White Paper, *Working for Patients*, saw the first attempt to standardise clinical audit as part of professional health care; it was formally introduced into the National Health Service (NHS) in 1993. Clinical audit tends to support the more patient-centred approach that is a feature of modern health care provision.

What is the difference between audit, research and data collection?

Research and audit are often confused; the differences between audit and research are explained in the table below.

| RESEARCH | AUDIT |
|---|---|
| May involve experiments based on a hypothesis. | Never involves experiments and involves measuring against pre-existing standards. |
| It is a systematic investigation. | It is a systematic review of practice |
| It may involve random allocation. | It never involves random allocation. |
| There may be extra disturbance to patients. | There is little disturbance to patients. |
| It could be a new treatment. | It never involves a completely new treatment. |
| Creates new knowledge about effectiveness of treatment approaches | Answers the question “are we following best practice?” |
| May involve experiments on patients. | Patients continue to experience their normal treatment management. |
| It is usually a lengthy process and | It is usually carried out involving a small |

| | |
|---|--|
| involves large numbers of patients. | number of patients and within a short time span. |
| It is based on a scientifically valid sample size (except in the case of some pilot studies). | It is more likely to be conducted on a pragmatically based sample size. |
| Extensive statistical analysis of data is routine. Data analysis can take a number of forms depending on whether qualitative or quantitative research has been carried out. | Some statistics may be useful. |
| Results can be generalisable and hence publishable. Quantitative research tends to be more easily generalisable than qualitative work. | Results are only relevant within local practice settings (although the audit process may be of interest to a wider audience and hence audits are publishable). |
| Responsibility to act on findings is unclear. | Responsibility to act on findings rests with individual osteopaths. |
| Findings influence the activities of clinical practice as a whole. | Findings influence activities of practitioners within a practice. |
| Always requires ethical approval. | Does not require ethical approval |
| Research can identify areas for audit. | Audit can be a precursor to clinical research by pinpointing where research evidence is lacking. |

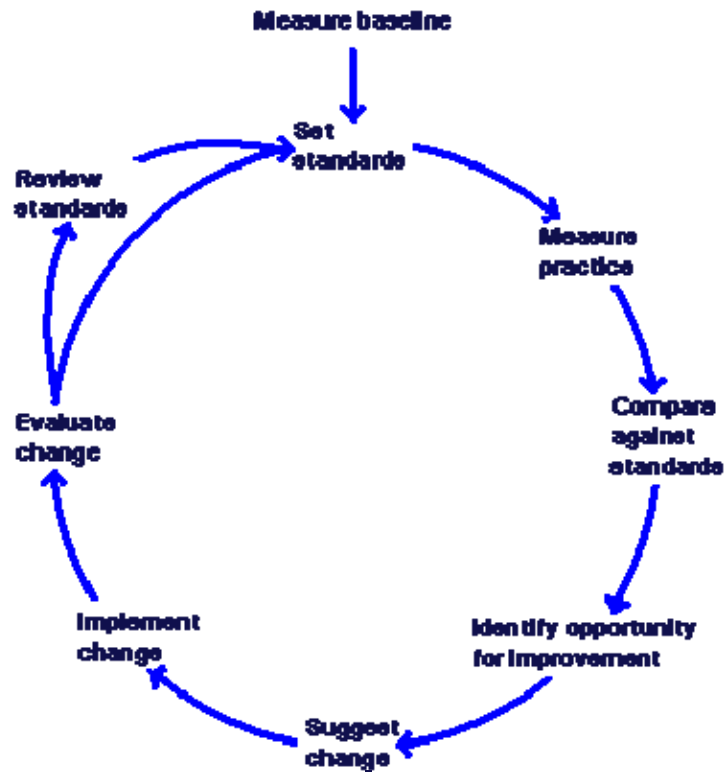
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Audit is also frequently confused with data collection. Collecting general information concerning what happens in practice is not audit, it is data collection. Audit looks quite clearly at a specific area of practice and focuses on the adequacy of patient care. Clear changes are introduced following the collection of information and the area of practice is re-examined to assess whether the changes introduced have had an effect on standards of care.

What is the audit cycle?

The audit cycle is the process that is undertaken when conducting an audit in clinical practice. Unfortunately, all too often the last stage of the process is forgotten and the audit remains incomplete.

Initial baseline data is gathered on a specific area of practice. The current standard in this area of practice can be identified and new standards can then be set. Changes can be identified and implemented to try and affect practice; the effect of those changes can be evaluated and standards can be reviewed.



Reference: www.gp-training.net

What can be audited?

The quality of health care provided can be audited by examining four interrelated component parts:

- Structure
- Process
- Outcome
- Patient satisfaction

Audits of structure

This type of audit looks at environmental factors within which care is delivered. Criteria that can be considered include the practice building (state of repair, facilities offered, confidentiality offered during consultations, privacy, cleanliness), the personnel (the receptionist, osteopaths, other health care practitioners and additional ancillary staff), equipment in the practice (is it always functioning, is it regularly assessed for safety) and patient notes (are they kept securely to maintain confidentiality, are they legible and complete, are they of a suitably high standard). This provides an indirect assessment of a patient's care, but the environment in which a patient is treated is, nonetheless, an important aspect of their care.

Audits of process

This can include a variety of factors related to patient management. This type of audit can focus on the technical skills of an osteopath and an evaluation of the decisions made concerning the management of a patient.

Audits of outcome

Outcomes are considered to be the most relevant assessment of a patient's care. They examine the change in the health status of a patient following a particular treatment intervention. An extensive number of outcome measurements have been developed to assess general health status, physical health and psychological wellbeing. Outcome audits can be concerned with:

- Response to treatment in terms of pain relief or change in levels of disability
- Response to treatment in terms of reaction to treatment e.g. soreness, increased pain or disability within a specified time frame.
- Degree by which patients can manage their symptoms following advice delivered.

Audits of patient satisfaction

Patient satisfaction is becoming an increasingly important outcome. Growing numbers of health insurers require information concerning patient satisfaction evaluation; this trend has largely resulted from the introduction of the 1989 White Paper *Working for Patients*. Assessment of patient satisfaction, however, may not necessarily be representative of the outcome of treatment: patients can demonstrate high levels of satisfaction despite experiencing small changes in pain relief etc.

Conducting an audit in practice

A large number of publications exist concerning clinical audit but there is very little basic information available for professional groups who have never undertaken clinical audit or who work outside of the NHS. One of the most straightforward ways to learn about the audit process is to work through an example.

Planning an audit

1. Select an area of practice

Non-attendance and lateness for appointments creates considerable difficulties in practice; it prevents more urgent patients being seen and costs the practice money. Examination of the practice diary can identify patients who do this; in the majority of cases this may happen as an isolated incident but all practices have their habitual non-attenders. Many practices automatically telephone non-attenders to clarify whether a simple administrative error has been the cause of a missed appointment.

2. Decide the standards

The ideal standard for non attenders would be 0% but a more realistic level of non-attendance will vary from practice to practice.

3. Gather information about current practice.

In order to gather information on the current state of practice, a retrospective examination can be made of the appointment diary during the previous eight weeks. This will provide numbers of non-attenders compared with appointments booked. A policy can be introduced in the practice that a telephone call is made to all patients after a missed an appointment to identify the reason for the missed appointment. In the example considered here, the audit form could look like the form shown below. Analysis of the appointment diary during the previous eight weeks will identify information to allow completion of some aspects of the audit

An audit form

| Reason for lateness and non-attendance | Frequency of non |
|--|------------------|
|--|------------------|

| | attendance |
|---|-------------------|
| Stuck in traffic | |
| Unable to park | |
| Left home/work late | |
| Forgot | |
| Confused the time | |
| Confused the date | |
| Not sure what to expect at first/next appointment so didn't attend | |
| Didn't feel treatment was working | |
| Didn't like the environment | |
| Sought a different type of treatment | |
| Unable to identify reason for non-attendance | |
| Total numbers of appointments not kept during the eight week period | |
| Total number of appointments booked during the eight week evaluation period | |
| Percentage of patients not keeping appointments during the eight week period | |

4. Compare actual practice activity with ideal practice activity

Once the level of non-attendance has been identified, an ideal level of attendance can be set for a particular practice.

5. Decide what changes to introduce

When the reasons for non-attendance have been identified, strategies can be created to address the problems identified. These could include asking the receptionist to telephone all patients the day before their appointment to remind them of the day and time. Text messages could be sent to patients one day/one hour before their appointment to remind them that they have an appointment. The strategy for appointment reminders should be clearly outlined to all patients and implemented with their consent. Equally, a clear description of practice policy considering non-attendance or late cancellation should be displayed in the practice (in both the treatment room and the waiting room) and preferably also on appointment cards.

6. Implement the change

A period of time, for example, eight weeks can be chosen to implement the change in reminding patients of their appointments to allow ample time to see if the strategy is having a beneficial effect on attendance.

7. Repeat the process

The audit form can be used again at this point to assess the level of non-attendance and the reasons. A positive change in the level of appointments kept will indicate whether the strategies for reminding patients about their appointments have been effective. The success of such an intervention will determine whether it should be sustained in a practice or whether the audit cycle should be repeated with a different strategy for change in place.

Areas of clinical practice can also be audited to assess whether current management of patients is in accordance with current best practice guidelines. Examples of practice guidelines can be found in a number of locations. Some examples are:

European back pain guidelines: www.backpaineurope.org.

Guidelines finder: www.library.nhs.uk/guidelinesfinder.

Further reading

Crombie IK, Davies HTO, Abraham STS and Florey C du V. The audit handbook.

Improving health care through clinical audit. Wiley and Sons. 19

Shaw DC, Costain DW. Guidelines for medical audit: seven principles. *British Medical Journal*. 1989;299:498-499.

Coles CR. Self-assessment and medical audit: An educational approach. *British Medical Journal*. 1989; 299:807-808.

Useful websites

Outcome measures: www.csp.org.uk

UBHT Clinical audit: <http://www.ubht.nhs.uk/clinicalaudit>

What is clinical audit? www.evidence-based-medicine.co.uk (Volume 4, number 1).

Audit information from the Chartered Society of Physiotherapy:

www.csp.org.uk/director/effectivepractice/audit.cfm

Audit information from the Institute for Musculoskeletal Research and Clinical

Implementation: www.imrci.ac.uk/Back_Pain_Audit_Toolkit/BackPain/backpain.html