North Manchester healthcare NHS trust

Clinical Audit Training

Contents

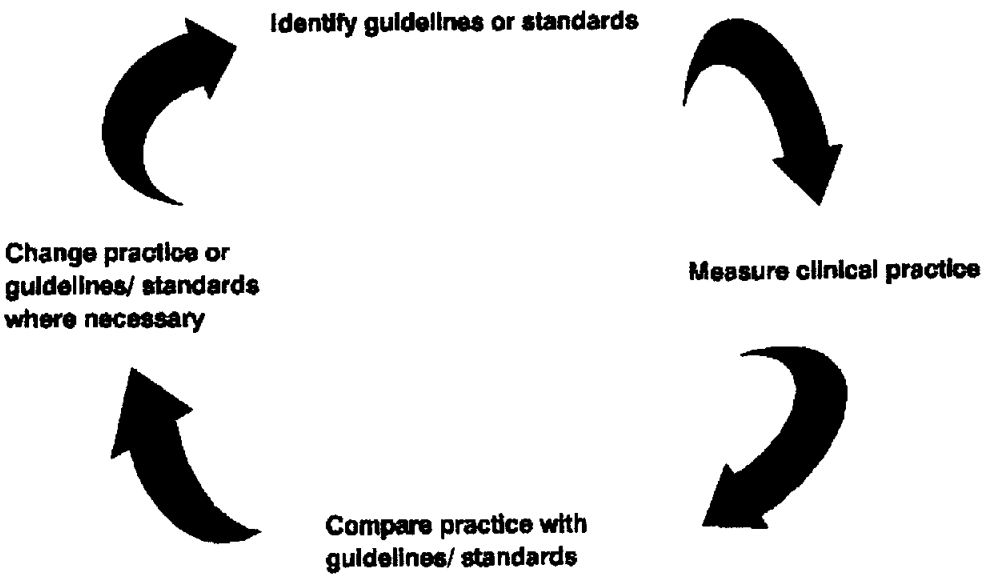
SECTION ONE

ABOUT CLINICAL AUDIT

What is clinical audit?

Clinical audit can best be described as
The measurement of clinical practice in comparison to agreed clinical standards or guidelines, in order to facilitate the improvement of patient care where necessary.

This is illustrated in the following diagram of the audit cycle



The beginning of the audit cycle is to identify the guideline or standard which you want to audit (section 2 - "Selecting an audit" will help you to choose which guidelines you should be looking at).

The next step is to measure clinical practice. This can be the most time consuming stage of the audit cycle and is explained more fully in section 3- "Planning an audit" and section 4 - "Implementing an audit".

When clinical practice has been measured the next step is to compare the findings with the guidelines/ standards.

Clinical practice or the guideline/ standard will need to be changed if an unsatisfactory result is obtained. Ways of identifying why practice did not meet the standard are discussed in section 5 "Evaluating an audit".

Finally, go back to the beginning of the cycle and re-audit to find out if the changes made have increased conformance to the standard/ have remained at a high level of conformance.

What audit is not

Confusion quite often exists about exactly what audit is. The areas that are most commonly mistaken for audit are:

Research
Audit uses the same tools as research (i.e. data collection and analyses of data), and there is often confusion about the differences between the two.

However the reasons for undertaking research and audit are quite different:

Research generates new knowledge . Research is essential for identifying what best practice is so that clinical guidelines can be written.

Audit ensures that this knowledge is being used. By measuring clinical practice against agreed guidelines we can discover if patients are getting the correct care.

Data collection
Sometimes a data collection process is set up that has no specific aims. Often this can focus purely on monitoring clinical activity. Because it is unstructured it does not identify areas where practice can be changed.

The above areas are often confused with audit because they all involve data collection and data analysis, but these tasks are only audit when done within the context of the audit cycle.

Reasons to audit

1. To identify variation in patient care

2. To identify deficiencies in patient care

3. To identify waste of resources
   Audit can identify unnecessary treatments and resources and therefore help the service to become more cost efficient

4. To identify lack of resources
   Can identify areas which are unable to meet the defined standard because of a lack of resources or facilities

SECTION TWO

SELECTING AN AUDIT

Identifying areas to audit

The following criteria can be used to identify the most worthwhile areas to audit.

1. Is this area a known quality issue? - are there concerns about the quality of patient care in this area?

2. Is this an important area of practice?
   Is this an area of high cost/ high volume/ high risk?

3. Is this an area of achievable quality improvement?

There is no golden rule about how these criteria should be used - use them as a check list to make sure you are looking at the most important areas of patient care.
However, there should be some standard that clinical practice is being measured against:

- Ideally this should be an officially agreed guideline/ standard

- It could alternatively be an area in which there is clinical consensus, but no official guideline. The research which suggests that this is "good practice" will act as the standard.

Also, make sure that you have the support of all relevent clinicians in the area that you are auditing.

SECTION THREE

PLANNING AN AUDIT

Getting a representative sample

The objective of collecting data about current clinical practice is to get a true picture of the general standard of care

In order to do this you need to look at a sample of patient care which is representative of patient care generally. This means you have to eliminate bias from your sample.

When you are choosing which patients to include in your sample, there are three areas you need to consider:

1. TYPE of sample

   The most commonly used type of sample in audit is consecutive patients. This is all patients who match the criteria you are looking at who were admitted/ discharged during a defined period. This type of sample is the most appropriate for use in an audit.

   Random samples (i.e. chosen by generating random numbers) are more appropriate for research projects.

   Never obtain your sample by using patients chosen randomly by yourself or by choosing the sets of casenotes/ care plans most readily available. They are likely to contain bias.

2. TIME SCALE of sample

   Generally you should be aiming to look at all relevant patients admitted/ discharged within a time period of at least one month.

   If the time period from which you are taking the sample is any less you may be looking at a time when, for some reason, the standard of care was different from what it usually is (e.g. because of an increase in staff sickness levels).

3. NUMBER in sample

   A sample of about 50 patients is usually considered adequate.

   A sample of much less than 50 is likely to introduce bias into the audit. The less patients you look at, the more likely it is that they

will have some special factor in common.

Therefore, you need a sample of about 50 consecutive admissions/ discharges over a time period of at least one month.
This however is only a guideline, and you can be quite flexible when using it (as long as you do not stray from it too much). If you are auditing the management of a condition that is quite rare for example, it is quite acceptable to take a smaller sample from a larger time period.

Always consider if the sample you are planning to use will give you a representative picture of patient care generally. Consider if there are any reasons why choosing that sample might give a biased picture of patient care.

The sample you choose to look at could be

> all patients who received the aspect of care that you are looking at. In an audit of the management of surgical wounds, this will be all patients with a surgical wound.
> This is called criterion based audit.

or it could be

> only those patients for whom it is suspected that substandard care occurred. In the above example this would mean only looking at the care of those patients who developed a wound infection.
> This is called occurrence screening.

Criterion based audit is much more common.

Designing an audit tool

1. Look at the guideline you want to audit and write a question related to each item you want to audit.
   For example the guideline might state:
   "Discharge from hospital needs to be delayed if the percentage variability between the highest and lowest PEF is more than 25%"
   And so you might ask the questions:
   "What was the variability between the highest and lowest PEF?"
   "Was the patient discharged?"
   You can then assess the numbers of patients that were appropriately and inappropriately discharged.

2. Ask closed questions if possible. This means questions with a set of fixed answers.
   In the above example :
   Was the patient discharged? yes [ ] no [ ]
   OR
   What type of follow up out patients appointment was planned?

general medicine	[ ]	
respiratory medicine	[ ]	
none planned	[ ]	
other	[ ]	specify:
not recorded	[ ]	
not applicable	[ ]	

   When necessary add a "other" category, in case the answer is something not specified in the list of fixed answers.

   Always add a "not recorded" option.

   Add a "not applicable" option

3. Collect essential data only.
   It is often tempting to collect other data items out of interest, or because they might highlight some new piece of information. Data collected for these reasons is rarely of any use.

Choosing a method of data collection

Retrospective or Prospective?

Whether you collect data retrospectively (after the patient has been discharged from hospital), or prospectively (the audit tool follows the patient through the system, with each piece of data being collected as the event happens) is usually determined by the nature of the data you want to collect.

Each method has its advantages and disadvantages:

Retrospective

Retropective data is collected most commonly from patients casenotes/ nursing notes/ x-ray or blood test result forms. It can also be collected from computer systems e.g. the PAS system.

Its advantages are that it is much easier to organise the data collection process. Casenote reviews can be completed when it is convenient for the person collecting the data.

There are also fewer people involved in the data collection process. This means that the data collected is more reliable (i.e. it is less likely that individual interpretation of a question has meant that slightly different data has been collected for each patient)

Its disadvantages are that quite often certain pieces of information are just not recorded.

There are also problems obtaining patients casenotes once they have been discharged.

Prospective

The advantages of collecting data as each event happens is that each data item is likely to more accurate (the time that things happened can be very difficult to obtain from casenotes).

People are also more likely to record things they might otherwise not have recorded, because they are prompted to do so by the audit tool.

Its disadvantages are that it can be a nightmare to organise!

There are many people involved in the process who can interpret audit questions differently.

Quite often people forget to complete the audit tool, and it is common when collecting data in this way to have audit tools returned only partly completed.

In most cases Retropective data collection is the best way.

If using the prospective method, keep the audit tool as simple as possible and make sure everyone involved is signed up to the audit and is trained in how to use the audit tool.

Other tips on planning an audit

Decide before you start the audit what the acceptable level of conformance to the standard you are looking at is - i.e. we think that at least 90% of our sample should have had a PEF reading taken on admission.

Produce a written plan. This can help keep things focused.
Detail who is responsible for what and the deadlines by which things have to be done.

SECTION FOUR

IMPLEMENTING AN AUDIT

Carrying out a pilot

Carrying out a pilot means going through the whole process of data collection and data analysis on a small scale.
The reasons for carrying out a pilot are:

- To ensure that the audit tool works - i.e. that the data is easily obtainable and that everyone involved understands how to use it.

- To ensure that the data gathered is meaningful and will be of some use.

Always carry out a pilot (at the very least pilot the data collection process). A pilot need only look at between 5 - 10 cases.

If the pilot indicates that the audit tool does not work or that the data collected cannot usefully be used, go back and make the necessary changes to the audit design.

Analysing data

Once the data has been collected it needs to be collated (each data item tallied and percentages calculated) and interpreted (measuring practice against the standard).
Data analysis in an audit should be kept as simple as possible. The numbers/ percentages of cases of patient care that did and did not reach each standard is sufficient.
Focus on the specific areas where patient care did not meet the standard to an acceptable level. The next section will help you to identify the reasons why patient care did not meet the standard. You can then start to make changes to clinical practice or the guideline/ standard.

SECTION FIVE

EVALUATING AN AUDIT

Evaluating an audit covers two aspects:

- Evaluating the results of the data collection and deciding what action to take

- Evaluation the successes and failures of the audit itself

Evaluating the results of an audit

The first stage is to communicate the results to all clinicians involved in the area you have looked at. This can be done via a report or, more usefully, in a formal presentation.

When compliance to the standard has been found to be at an unacceptable level, all relevant clinicians should discuss the possible reasons why practice is not meeting the desired standard.

The areas you should be looking at are:

<u>The guideline/ standard</u>

Does the guideline/ standard need changing?
Is it up to date? Is it realistic?

Is the guideline/ standard easy to understand?
Does it need clarification?

Is the guideline/ standard visible?
Do all relevant clinicians know of its existence and know where to find it when they need to refer to it?

<u>Clinical practice</u>

Do clinicians working in this area have the necessary skills and knowledge in order to follow the guideline?

<u>The organisation</u>

Are there adequate resources, staff and equipment to ensure that practice meets the standard?

<u>Patient behaviour</u>

Are patients complying with their treatment/ care?

Is there a need for patient education?

Is there any other reason why clinical practice is not matching the standard?

In most cases the reason(s) for non-compliance to the standard will be found in one of the above areas. If it is decided that no problems exist in these areas (or if a change is made, but re-audit shows no improvement in the compliance to the guideline):

Contact the clinical audit department for help in looking at this aspect of patient care in more detail.

Remember
Don't blame individual people for not complying to the standard! Research has shown that when processes don't work, the fault lies in the organisation of the process itself, not the people that work within the process.

When the reasons for an unacceptable level of compliance have been identified it is important that the necessary changes are made. If this is not done all that hard work will have been a waste!

Evaluating the successes and failures of an audit

After each audit gather everyone involved together and assess the successes and failures of the audit:

- Were the objectives of the audit met? If not, why?

- What specific problems were encountered? How can these be avoided in the future?

Learning by our mistakes can help increase the quality of future audits. Share the lessons you have learned with others.

Re-audit

Between 2 - 12 months after changes have been implemented you should be thinking about re-auditing that guideline. This will prove whether the changes made have had any impact on clinical practice.

It is very unlikely that even if practice has not changed that you will get exactly the same result. This is because of the role that chance plays.
So an increase in the re-audit results does not necessarily translate as an increase in clinical conformance to a standard.
As a general rule if there is at least a 10% difference between the results of a re-audit and the results of the original audit, you can quite safely assume that some change in clinical practice has occurred.

The Clinical Audit Department

Chair of clinical audit
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We can offer practical help and advice in all aspects of clinical audit. We can also retrieve casenotes for audit purposes from the medical records library.

The clinical audit department is based on the 1st floor in Trust Headquarters

We can be reached on extension 2959