

Auditing the treatment of patients with a specific disease state, such as asthma, depression or hypertension

Introduction

All too often in primary care, healthcare professionals find themselves working in parallel with each other, working towards broadly similar, but ill-defined goals. Unfortunately the provision of healthcare in the community has often been conducted without significant co-operation between all the different professionals who make up the primary healthcare team. In some areas, however, full co-operation has led to great improvements in the levels of patient care, and is often cited as the only real way forward for the future.

It is often stated that the patient treated by a team approach has a far better chance of specific health gains. Better communication between healthcare professionals, especially of a proactive rather than a reactive nature with full dissemination of available data enables greater input into each patient's therapy. By taking a co-ordinated team approach, each member of the healthcare team can bring his or her own specialised knowledge to bear whilst ensuring that each is projecting the same key messages and working towards the same health outcomes.

In order for the team approach to work, healthcare professionals must come together to identify areas of possible collaboration and the tasks that must be carried out to achieve a successful outcome. Part of this includes setting standards of practice and allocating responsibilities, but this must be followed by careful monitoring to ensure that all areas are operating properly

and that nothing has been omitted at the initial planning stage.

This document will briefly outline how a team of healthcare professionals can monitor its performance in the treatment of certain disease states. It is intended as an introduction to the team approach, and can be used as the basis for initiating closer collaboration between the professions.

Purpose of audit

The purpose of an audit of the treatment of patients with a specific disease state is to examine current performance, to measure that performance against accepted standards and to identify and implement possible improvements. The primary objective of this exercise must be to safeguard and, where possible, improve standards of healthcare provision to the patient.

By conducting an audit of the treatment of patients with a specific disease state such as hypertension, depression or asthma, the healthcare team will be able to identify the common goals and objectives of therapy and to identify which roles will be performed by which team member(s). As a result the practitioners within the team will be able to measure their collective and individual performance against recognised standards and agreed protocols and investigate ways of improving the level of care given to patients.

Benefits of audit

Benefits for the patient

- the patient will benefit from the optimisation of therapy, reduced episodes of therapeutic failure and of side effects

Benefits for healthcare professionals

- the healthcare professionals taking part should experience greater co-operation and wider dissemination of information between the members of the team
- they will be able to demonstrate compliance with accepted best practices

- clear identification of therapeutic goals and agreement of key messages and individual responsibilities will enable a greater level of interdependence, with confidence that all members of the team are working towards the same goal
- improved inter-professional co-operation should lead to cost savings through optimal therapy, reduced wastage and fewer emergency episodes requiring hospital admission

Criteria and standards

Criteria

The criteria and standards employed in an audit of treatment should be agreed by all members of the healthcare team and based on accepted guidelines for disease state management, such as the British Thoracic Society guidelines for the treatment of asthma. The criteria will take the form of broad aims which the whole healthcare team will work towards.

Standards

Standards will be more specific, targeting key areas of responsibility for each member of the team and against which performance can be easily measured. Again, these should be based on nationally or locally agreed standards of best practice, but ought to be tailored to meet local needs.

Outside assistance may be required when designing therapeutic treatment protocols, such as the local pharmacist. Local hospital consultants and hospital pharmacists may well be able to assist in bringing in-house prescribing patterns in line with those of secondary care and vice versa.

Data collection

Sources of data

The main sources of data will be the practice-held patient records and the pharmacy-held patient medication records (PMRs).

These can be used prior to annual medication reviews and as a source of data sampling (see below).

Members of the audit group will have to agree levels of access to information held on each others' records, although the greater the freedom of information within the group the better. They will need to agree who will conduct any sampling exercise, how data are to be recorded, by whom and what sample size is most appropriate. In addition, they will need to agree any exclusions from data collection during the audit period as well as the format and level of reporting of information. These details should be incorporated into the agreed audit protocol and specified on any data collection sheets used.

Sampling

The incidence of different disease states within a practice's population will vary considerably but all practices will have some large patient groups. To review all patient records as part of an audit could well be an overly detailed task. A representative sample of patients' records can be used but it is important that sampling follows accepted procedures for randomisation.

The size of a sample should depend on how many patients are included in any given patient group and on how precise you want your findings to be. Computer programs are available to determine sample sizes but, for example, the following sample sizes have been calculated using EPI Info, based on a 95% certainty that standards thus obtained are within 5% of the actual value.

No. of patients	Sample size	No. of patients	Sample size
100	79	350	183
125	94	400	196
150	107	450	207
200	132	500	217
250	151	550	226
300	168	600	234

Once you have determined your sample size, allocate each patient on your disease state register a number. Then generate a list of random numbers and select the corresponding patients from the register. These patients then form the basis of your sample.

Duration of the audit

The audit group must collectively agree the length of time the audit should take. This will depend on available resources, the nature of the disease state and to what extent health outcomes need to be measured. This in turn will also vary depending on the disease state selected for audit.

Analysing the data

Once the data collection has been completed, the information obtained must be analysed and presented in such a way that meaningful conclusions can be made. There are several computer programs that can be used for such analysis. They enable the researcher to identify trends, frequency and max/min parameters but they rarely tell us what the data collected actually means.

Once the raw data have been collected and an initial computer analysis has been carried out, the audit group must scrutinise the information to check its validity. It must be checked for accuracy and completeness, and an assessment must be made to determine what it means. In order to do this, the group must look for trends appearing: for example, are standards in key areas of therapy consistently not being met? Has there been a breakdown in cross-referral between different members of the team? These can then give an indication of areas that may need to be investigated more closely, of working practices that need to be reviewed or of policy changes that have to be made.

When checking the accuracy and completeness of the data, it is important to ensure that a consistent approach has been adopted through the data collection period by all members of the team. This will enable valid comparisons to be made between individual practitioners and will allow for comparison with results at a later date following the implementation of any required changes to working practices.

Where random samples have been taken, if widespread trends appear to suggest non-compliance with the pre-agreed standards or with currently

accepted best practices, it is important to consider further review of all patients in the chosen category. This may just involve sub-groups of patients, for example, school children with asthma, but may necessitate, in this example, a complete review of all patients on the asthma register.

Making the change

As a result of conducting an audit of a given therapeutic area, two kinds of changes may result. Firstly there may be changes to current working practices, incorporating new and unfamiliar systems. Secondly patients' medication might need to be changed. Either way, it is important that the effect on patients is controlled and carried out in such a way that it gains their acceptance and co-operation. This is often easier said than done. However, by careful planning and proper assignment of responsibilities within the group and through agreed steps that will ensure reinforcement of the key messages, most patients will appreciate the efforts the group is making to improve the healthcare that they are receiving.

The most important thing to remember is communication, both between the members of the group and, most importantly, with the patients. Any patient who feels that he or she is being kept in the dark about something will be harder to convince that any proposed changes will be of benefit.

Any changes implemented must be agreed by all the participating healthcare professionals. A timetable must be drawn up in advance and progress should be closely monitored. Responsibilities must be assigned to each member and frequent meetings are valuable during the change-over period to assess progress.

When to re-audit

Once any changes in working practice have been instigated, a period of settling-in must be allowed for. However, it is important that performance is once again monitored to assess how well the new working practices are operating. Often there will have been no need for wholesale changes but instead simply

alterations to individuals' medication. However, even so, these changes must also be followed up to assess the incidence of side effects, patient compliance and healthcare outcomes.

The interval between completing one audit cycle and re-auditing after any changes have been made will depend on a number of factors: the number of patients in any given patient or disease state category; any new national guidelines being issued; personnel changes etc. However the interval must be neither too short (so interfering with the change process) nor too long (allowing errors to go undetected for any length of time). As a general rule of thumb, the second audit should be completed within three months of implementing any changes in working practice. Thereafter, if these changes have raised performance for so that all key standards are met, a longer interval, example, two years, may be allowed to elapse.