The absence of coding for serum fructosamine concentrations may be a simple omission, but it forced us to a lack of symmetry between two measures of diabetic control. The reason why this omission has escaped detection needs to be addressed. We were also disappointed that we were unable to code complex information on morbidity for the purpose of assessing health needs. This is despite claims that Read codes will aid the planning of health care services.

These apparent discrepancies may suggest that we have used the Read coding classification for a purpose that it was not designed to fulfil. The problems we identified may be intrinsic to a simple classification structure of this kind and, as such, cannot be readily rectified. Despite the coding classification's obvious strengths we, like other users, may have had unrealistic expectations of it that are impossible to fulfil because of the intrinsic assumptions in its structure.

Conclusion

The value of computers in improving the quality of patient care in general practice is recognised.[11] Consensus seems to have been reached regarding the use of Read codes for classification of data in the NHS.[3] Our project, however, has shown difficulties with the coding system that can mainly be attributed to two features; firstly, the lack of a true hierarchical structure and, secondly, apparent gaps in the coding. Such difficulties may not be unexpected as a coding classification will only fulfil the functions it was designed for, irrespective of the claims made about it. As a result, substantial compromises had to be made in our standard data set even before it was sent to practices to test the practicalities of retrieving the data.

The problems with the Read coding structure, which have recently been the subject of much debate,[12] must be recognised and addressed if the potential of information from primary care is to be achieved. The clinical terms projects have made modifications to Read codes by the use of qualifiers to create more flexible ways of representing clinical terms.[10] The obvious disadvantage is an increase in technical complexity and a move away from a coding classification that is user friendly.

The demand for comprehensive and valid data is high, and other health care agencies are embarking on similar information projects. Despite claims that Read codes (version 3) will solve all problems, barriers to widespread networking of information and the inherent weakness of Read codes (version 2) may still exist. For example, even in our small project group not all practices use Read codes.

In the meantime we suggest that groups planning similar information projects use the Read codes from the outset to inform and guide the content and format of their proposed data sets. In addition strategies should be used to promote ownership by all participants in order to encourage the collection and sharing of high quality information.

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How To Do It

Use facilitated case discussions for significant event auditing

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An important type of review undertaken routinely in health care teams is analysis of individual cases. This informal process can be turned into a structured and effective form of audit by using an adaptation of the "critical incident" technique in facilitated case discussions. Participants are asked to recall personal situations that they feel represent either effective or ineffective practice. From such review of individual cases arise general standards to improve the quality of care. On the basis of a study of audit of deaths in general practice, we describe how to implement such a system, including forming and maintaining the discussion group, methodology, and guidelines for facilitators. Problems that may arise during the case discussions are outlined and their management discussed, including problems within the team and with the process of the discussions.

Medical audit has traditionally taken place within a group composed of members of the same clinical specialty. However, multidisciplinary teamwork is usual in health care, so clinical audit may be a more effective means of bringing about change within organisations.[1,2] One informal but important type of review that is routinely carried out within clinical teams is analysis of individual cases—for example, as an educational exercise ("random case analysis") in vocational training in general practice and as a discussion between general practitioner and district nurse after the death of a terminally ill patient. This informal process can be turned into a more structured (and acceptable) method of internal audit using an adaptation of the "critical incident" technique,[3] originally developed in the 1950s.[4] Critical incidents are collected by asking participants to recall situations that they think are examples of good or bad practice in the particular setting being studied. The participants describe what first occurred, the subsequent events, and why they perceived the incident to be an example of effective or ineffective practice. This technique has

been used in curriculum development,[5,6] primary care research,[3,7] and development of clinical guidelines.[8] Such discussions are now referred to as "facilitated case discussions"[8] and provide a technique for what has come to be known as significant event auditing[9] or critical event auditing.[10]

The aim of facilitated discussions is to identify events in individual cases that have been critical (beneficial or detrimental to the outcome), with a view to improving the quality of care without attributing individual blame or self criticism. The critical events may be clinical, administrative, or organisational. From our experience with primary health care teams in a study which used facilitated case discussions about patients who had recently died,[8] we describe how to use the technique as a method of team audit and outline some of the problems that may arise.

Advantages and disadvantages of an external facilitator for case discussions*

Advantages	*Disadvantages*
Leaves everyone in the team free to contribute	Could be threatening
Minimises internal personality clashes	Could affect existing team dynamics
Provides safer ambience if there are any feelings of distrust in primary health care team	Expensive
Ensures process is kept going	
Provides someone on whom to offload distress	
External facilitators can get peer support more easily from outside the practice	

*Developed in a workshop led by LAR and RS at the Association of University Departments of General Practice annual scientific meeting in 1993.

Structure of facilitated case discussions

FORMING THE GROUP

The primary health care team, in consultation with the facilitator(s), should initially decide which members will take part in the discussions. Whenever possible and appropriate the group should be representative of the team (doctors, practice and district nurses, practice manager, and ancillary staff), as innovation is much more likely when all who influence care can give their views.[1] All team members should be happy about participating, as viewing the task as a burden may lead to group dysfunction.[11]

The core membership should ideally remain constant if a series of discussions is to take place, to promote a safe, comfortable environment in which to encourage critical thinking. Facilitating the discussions is easier if the group is already well established, as regular group meetings in which each member's contribution is recognised and respected probably promote effective teamwork.[12]

SIZE OF GROUP

Generally large groups function less well than small groups[13]; the ideal group comprises eight to 10 people. Case discussions can be facilitated in a singlehanded practice, but as many members as possible of the primary health care team need to participate for useful discussions to take place.

SETTING AND EQUIPMENT

A comfortable, quiet room is essential. Holding the discussions during the day makes it easier for all staff to attend but difficult to avoid routine interruptions.

Relevant discussion points and any decisions made should be documented, so a group secretary should be appointed. The group may wish to audiotape or videotape the discussion. Reassurance about confidentiality, however, will obviously be needed in such cases.

DURATION

The length of a discussion will vary, but between 20 and 45 minutes will generally be needed for each case. Cases generating emotive topics may need up to an hour. In our study usually two cases were discussed in an hour.

THE FACILITATOR

The group should decide whether to select a facilitator from within the group or to use an external facilitator. The advantages of an external facilitator are outlined in the box. Before the discussion the facilitator should explain his or her role to the group, which is:

- To explain the aims and process of the discussion
- To structure the discussion—that is, to keep to time, to encourage contributions from all participants, and to clarify and summarise frequently
- To maintain the basic ground rules of group discussion—for example, to allow uninterrupted discourse, to encourage participants to speak for themselves (using "I" not "we"), and to maintain confidentiality[14]
- To facilitate the suggestions for improvement when areas of concern arise and more importantly to encourage participants to accept responsibility for initiating change
- To recognise emotion within the discussion, to acknowledge it, and to allow appropriate expression within the group
- To remain "external" to the group and to avoid giving unwarranted opinions or colluding with the group during the discussions

The process of discussion

All participants should know each other and each others' roles. If the discussion is to be recorded and transcribed then the participants should introduce themselves at each session, so that the transcriber can identify each contributor. The facilitator should reiterate her role and the ground rules of the discussion.

Cases of particular concern or interest may be chosen, or cases may be chosen at random. Randomly chosen cases avoid selection bias. In our experience random cases have also led to findings of interest, and we recommend a mix of both. Ideally the facilitator, or by agreement a member of the group, should prepare a brief, written summary of the case and circulate this to all participants, preferably before the discussion. The participant who has been most involved in the case opens the discussion with a brief summary of his or her recollections outlining good aspects of care first then areas of concern. Other members are then invited to add their observations until everyone, as appropriate, has participated. At this point, the facilitator summarises the discussion, helping the team to identify the good aspects of care and highlighting the areas of concern, encouraging the group members to suggest improvements. The facilitator ends the discussion by requesting final comments and summarising the improvements to be implemented.

Written feedback should be produced as soon as possible after the discussion (see box for example). Ideally regular review sessions should also be held to check that the suggested improvements have been implemented and, if not, to explore the reasons for this.

Example of written feedback after facilitated case discussion*

Issues arising from discussion	*Positive points*	*Concerns*	*Suggestions*
For new doctor: first case of sudden death on call in practice	Doctor confirmed patient dead; informed and supported wife; contacted relatives	Doctor felt awkward about what to do about undertakers	None
Communication within the practice	Doctor knew a little of patient's history from informal discussion in the practice: case had been discussed the previous day	There had been no formal discussion about management of life threatening emergencies in chronically ill patients on practice list for the new partner	Discuss such patients at team meetings
Bereavement care	Doctor visited wife two days later	None	None
Maintenance of emergency drugs bag	Doctor checked to see that morphine was in bag on receiving call for chest pain	Morphine was out of date	Practice nurse could be in charge of maintaining emergency drugs. Doctors to write in book when they have used supply from bag

*About male patient in his 70s with ischaemic heart disease and chronic congestive heart failure; history of multiple admissions; developed dyspnoea and severe chest pain. General practitioner was called, but patient died 10 minutes after doctor arrived.

Potential problems during discussions

Management and resolution of the problems described below, which are common to all kinds of work done in small groups, requires firstly recognition of the problem then effective intervention from a member of the group, or if this is not forthcoming, from the facilitator.[11]

PROBLEMS WITHIN THE PRIMARY HEALTH CARE TEAM

Group dynamics

Primary care teams that are accustomed to meeting regularly and reviewing patient care seem to find facilitated case discussions more rewarding than teams that do not, as the initial process of identifying areas of concern seems to be less threatening.[12] A team that is unaccustomed to meeting regularly or in which there is dysfunction may require help with group dynamics before its members can proceed to case discussion. For example, one of the practices in our study at the end of the project sought further help with team building and communication skills. Incorporating review sessions into the discussions can help to compensate for the possible absence of "finishers" (members of a team responsible for ensuring that the team meets its obligations and deadlines).[15]

Hierarchical barriers

Barriers may exist both interprofessionally (for example, between general practitioners and district nurses) and intraprofessionally (for example, between senior and junior partners). A participant may feel undervalued or lack the confidence to provide what may be an essential contribution, and the facilitator should encourage and acknowledge all contributions.

Existing tension

Some degree of tension always exists within an established team. Tension can be used constructively, however, in a safe environment to stimulate critical thought, although the presence of an obstructive or disruptive member will obviously influence the outcome of the discussion. Participants who are "innovators" in the team may meet resistance from the natural "laggards," producing a conflict of interest.[16] Long standing personality clashes may also surface.

Fear of exposure, blame, or humiliation

During our study, one nurse expressed surprise at hearing a doctor admit guilt and failure in a patient's care but respected him for doing so. Despite continual reassurance that facilitated case discussions are not an exercise in attributing individual blame, some participants may find it difficult to identify aspects of detrimental care, especially if they do not feel comfortable in the group. The facilitator can help to resolve this by encouraging openness—for example, by acknowledging that everyone might be afraid to admit personal failure but that the aim of the group is to be supportive and to develop practical solutions for preventing a similar situation from recurring.

DURING DISCUSSION

Confidentiality and fear of medical litigation

This problem of confidentiality and fear of litigation may be magnified if the discussions are recorded or if written minutes are taken. Some general practitioners may not wish to have ancillary staff present for fear of litigation or breach of confidentiality. In our study we used a protocol based on advice given informally by medical defence societies (box).

Dealing with emotion

Ideally the facilitator should be sensitive to the range of emotions that may arise, such as sadness, guilt, and anger. These may be expressed directly or indirectly—for example, through flippancy in the discussion—and are most likely to occur in discussions of emotive topics, such as terminal care. The facilitator should acknowledge the presence of emotion and the venting of feelings and should not only provide support but also, more importantly, encourage similar expression from group members.

Collusion

Collusion is a common and important problem and may arise between facilitator and group as well as among group members. In our study the general practice facilitator tended during the early discussions to collude with the participating general practitioners, acting as general practitioner and accepting their decisions rather than as external facilitator and challenging them. Review of the transcripts with frank and open analysis was needed to solve this problem. One way of challenging collusion in the group is for the facilitator to identify the deficiencies in care and suggest that the group is denying their existence. He or she should then encourage the group to confront the collusion and to recognise the problems identified.

Inability to recognise deficiencies of care

This inability may be due to a combination of factors—for example, fear of humiliation or exposure—or simply to dysfunction within the primary care team. It may simply be, however, that a group does not recognise that different (higher) standards are both the norm and achievable and hence that a problem exists. The facilitator may need to remind the group of alternative methods of care—that is, act as an educator.

Protocol for avoiding litigation and breach of confidentiality

- As soon as a case has been selected it should be given a code number and only referred to in writing by that number. Specific reference to the patient should be by age and sex only—date of birth is too specific
- Any written record of the case discussion should be kept locked away
- If the discussion is recorded and the recording subsequently transcribed, the audiotape or videotape should be erased. The health professionals involved should be referred to by their initials only
- At the end of a project all written records should be shredded
- If any part of a discussion is to be published a fictitious case should be used

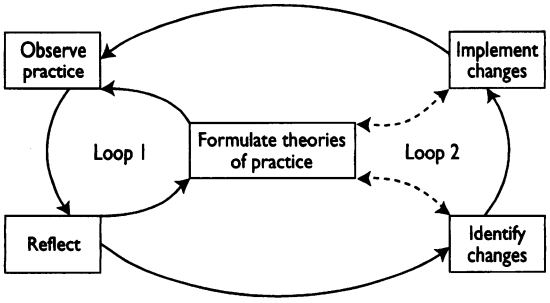
Some groups are able to cope with the task of recognising problems at an early stage, but most will achieve it as the discussions progress and they become more comfortable as a group.

Discussion

Facilitated case discussions based on the critical incident technique are an acceptable method for promoting significant event auditing by primary health care teams.[3] By reviewing individual cases, the team can generate standards to improve the quality of care.[8] Ideally, this requires representatives from all professional groups in the team to promote critical, constructive discussion. Initiating and maintaining change will be more successful if all team members have been instrumental in developing those changes.[17-19] This focus on the team is one of the main differences from the critical incident technique as developed by Flanagan, which looked at the practice of individuals.[4]

The outcome of facilitated case discussions can be varied and is not necessarily negative or suggestive of the need for change. One case may illustrate that the primary health care team is providing high quality care—for example, in the case of a terminally ill patient dying at home, with the general practitioner and district and specialist nurses in regular attendance and the doctor initiating bereavement support for the family. Such cases are important for building self confidence and self esteem. More commonly, however, discussions will result in a list of concerns, and the primary health care team must determine the ones requiring immediate action. In both our pilot study[3] and the main studies (J Spencer *et al*, unpublished data) most concerns identified as requiring immediate action were related to communication or organisation. Primary care teams were less forthcoming in identifying clinical deficiencies, perhaps as a consequence of fear of litigation or admission of personal failure.

Following the principles of the "double loop audit cycle" as proposed by Coles (figure),[20] facilitated case discussions are most effective if they are supplemented with review sessions. The initial case discussion allows the group to focus and reflect on an aspect of practice and to develop standards, or theoretical generalisations, to improve that practice—the first loop. The aim of the review session is to encourage the group to transform such generalisations into practical suggestions and to identify individuals with responsibility for implementing such changes—the second loop. As adults learn and implement knowledge more effectively if it is relevant to their daily needs,[21] the group should attempt to place the suggestions in order of importance to their practice.



"Double loop audit cycle"[20]

As we have described, most problems arising during facilitated case discussions are related to the underlying principles of small group dynamics and the facilitation of such groups.[11] For collaborative audit to be successful, participants may need to develop skills in group facilitation, which can be acquired only within a group format. This process may be easier with the help of an external facilitator with established expertise in facilitating small groups.[11]

Admitting to possible inadequacies of care, especially to colleagues, is an extremely stressful procedure for experienced health professionals. In the mid-1980s, however, the Royal College of General Practitioners' initiative on quality stated that the setting of standards and performance review should be incorporated into general practice within a decade.[22] In the 1990s, audit is still largely a voluntary process in primary care, but the future will undoubtedly see a trend towards clinical rather than medical audit, and this will present general practitioners and the primary care team with a greater obligation to incorporate quality improvement strategies into everyday practice. Facilitated case discussions provide an inviting and stimulating method of meeting this obligation.

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