Assessing the work of medical audit advisory groups in promoting audit in general practice

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Abstract

Objectives—To determine the role of medical audit advisory groups in audit activities in general practice.

Design—Postal questionnaire survey.

Subjects—All 104 advisory groups in England and Wales in 1994.

Main measures—Monitoring audit: the methods used to classify audits, the methods used by the advisory group to collect data on audits from general practices, the proportion of practices undertaking audit. Directing and coordinating audits: topics and number of practices participating in multipractice audits.

Results—The response rate was 86.5%. In 1993–4, 54% of the advisory groups used the Oxfordshire or Kirklees methods for classifying audits, or modifications of them. 99% of the advisory groups collected data on audit activities at least once between 1991–2 and 1993–4. Visits, questionnaires, and other methods were used to collect information from all or samples of practices in each of the advisory group’s areas. Some advisory groups used different methods in different years. In 1991–2, 57% of all practices participated in some audit, in 1992–3, 78%, and in 1993–4, 86%. 428 multipractice audits were identified. The most popular topic was diabetes.

Conclusions—Advisory groups have been active in monitoring audit in general practice. However, the methods used to classify and collect information about audits in general practices varied widely. The number of practices undertaking audit increased between 1991–2 and 1993–4. The large number of multipractice audits supports the view that the advisory groups have directed and coordinated audit activities. This example of a national audit programme for general practice may be helpful in other countries in which the introduction of quality assurance is being considered.

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Keywords: audit, medical audit advisory groups, general practice

Introduction

The potential role of quality assurance in Improving the quality of care in general practice is attracting growing interest in the healthcare systems of many countries. In a recent survey of 17 European countries 13 either had or were planning a national policy on quality assurance. However, only four also had local structures or a legal framework to support quality assurance. The clinical audit programme in England and Wales was found to be one of the most well developed. If quality assurance in different countries is to be effective, information is needed about the progress of those programmes that were the first to be established and which included arrangements for national and local professional structures, funding, and encouragement to take part.
Assessing the work of medical audit advisory groups in promoting audit in general practice

In England and Wales quality assurance in general practice was launched in the form of medical audit by directives issued by the Department of Health in 1990. The family health services authority in each area was required to establish a medical audit advisory group by April 1991 with the remit to direct, coordinate, and monitor medical audit activities within all general medical practices. The objective was to persuade all general practices to participate in regular and systematic medical audit. Most advisory groups comprised general practitioners interested in audit who were willing to spend some time working with practices in their area. The participation of general practitioners in audit is voluntary, in contrast to the participation by doctors in hospital practice, which is compulsory. Many advisory groups used their allocated funds to employ lay audit support staff: administrators, facilitators, and audit clerks. Substantial sums of money have now been spent in supporting the work of the advisory groups and it is appropriate that information is sought about their achievements.

In a series of studies, Humphrey and colleagues documented the process of audit from shortly before the establishment of the advisory groups. In a report published in 1992 they recommended that the remit of advisory groups be enlarged to include the broader objective of service development and that membership should be altered to reflect the many professions involved in primary health care. More recently Humphrey and Berrow assessed the role of advisory groups in securing improvements in patient care by reviewing the evidence available from several projects of medical audit in general practice, including a collection of examples of successful audits reported in advisory group newsletters and annual reports. The same authors found wide differences in the approaches taken by the advisory groups; some concentrated specifically on promoting audit whereas others became involved in a wider range of service development activities.

The advisory groups themselves have begun to collect information about audits in general practice with grading systems such as those developed by Oxfordshire or Kirklees advisory groups. In these systems, the original definition of medical audit—"the systematic critical evaluation of the quality of medical care, including the procedures used for diagnosis and treatment, the use of resources, and the results"—has been developed to place greater emphasis on completing the audit cycle and implementing change (boxes 1 and 2).

Further developments have included assessment of the range of topics considered by audit and the involvement of members of the primary healthcare team. However, no national survey has been undertaken to determine whether advisory groups have monitored audit as required in their remit from the Department of Health or whether their activities have had an impact on audit in general practice.

### Box 1 Oxfordshire method of classifying audits

0. No response from practice
1. Practices that are not collecting data
2. Practices that are collecting data for annual report
3. Practices that are collecting data over and above annual report
4. Practices that have identified a problem
5. Practices that have identified a problem and started audit
6. Practices that have completed an audit which did not involve the full practice team
7. Practices that have completed an audit which involved the full practice team
8. Practices that have completed several audits not involving the full practice team
9. Practices that have completed several audits involving the full practice team
10. Practices that have a rolling programme of audit involving all primary health care team members

### Box 2 Kirklees method of classifying audits

Although the advisory groups were given the clear objective of obtaining the participation of all practices they were offered only limited advice about how this should be achieved. Among the suggestions made by the Department of Health were organising local audit teams and providing appropriate education about audit. In monitoring audit, advisory groups were also required to provide the local health authority with regular reports on the general results of the audit programme, although what was to be the content of the reports was not specified in detail.

This paper reports the first phase of a study with the overall aim of determining the impact of advisory groups on audit in general practice. The aim of this phase was to discover to what extent advisory groups have fulfilled their remit to monitor audit activity in general practice and to seek evidence from multipractice audit of direction and coordination of audit activity. As well as providing information of value for planning the future development of clinical audit in England and Wales, the findings may also be of interest to those in other countries who are considering the introduction of quality assurance in general practice.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Choose topic</td>
</tr>
<tr>
<td>II</td>
<td>Set target standards</td>
</tr>
<tr>
<td>III</td>
<td>Observe practice</td>
</tr>
<tr>
<td>IV</td>
<td>Compare performance with targets</td>
</tr>
<tr>
<td>V</td>
<td>Implement change and plan care</td>
</tr>
<tr>
<td>VI</td>
<td>Cycle repeated</td>
</tr>
</tbody>
</table>

### Classification

- Full audit = at least five stages present
- Partial audit = stages I and III present plus either II or IV
- Potential audit = stages I and III
- Planning audit = stage I plus definite intentions for audit
- No audit = no stages present
Method

DEVELOPMENT OF THE QUESTIONNAIRE

A postal questionnaire (box 3) was developed to collect information about how advisory groups have (a) monitored audit activity and (b) directed and coordinated audit activity.

Section A: Basic questions about the advisory group
Advisory group name
Number of practices relating to the advisory group
Name and position of person completing the questionnaire

Section B: System used by the advisory group to classify audits in 1993–4
Whether any of the following were used (tick box)
- Oxfordshire system
- Modified Oxfordshire system (please describe)
- Kirklees system
- Modified Kirklees System (please describe)
OR
If advisory group’s own system was used, which of the following items were noted
- Doing audit or not (level not specified)
- By level of audit done - for example, complete cycles, data collection only
- Where there is practice team involvement
- Topics selected for audit
- Other (please describe)
OR
Description of any other methods used

Section C: Number of practices doing full audit or any audit (see text for definitions)
Audit activity in each year 1991–2, 92–3 and 93–4
How this information was collected by the advisory group (tick box)
- Not collected
- Visits by lay facilitators to all practices
- Visits by advisory group general practitioners to all practices
- Visits to some practices (describe how selected)
- Postal questionnaire to all practices
- Postal questionnaire to some practices (describe how selected)
- Other (please describe)

Section D: Multipractice audits known to the advisory group (see text for definition)
None
Topic, start date, end date, how many practices invited, number of practices taking part
Any other comments

Box 3 Questionnaire content

Monitoring audit activity
To monitor an audit, the advisory groups need a system for collecting information from general practices about their audit activities. Questions were therefore included about how information was collected by the advisory groups from practices in the three years 1991–2 to 1993–4. Advisory groups may have undertaken visits to practices, sent a questionnaire to practices to ask about audit, or used a combination of these methods. Advisory groups were also asked to specify whether all practices or a sample had been selected for data collection.

Further evidence of the monitoring activities of advisory groups is provided by the extent to which they have evaluated audits carried out by practices. Therefore, advisory groups were asked to state whether they had used some form of classification scheme to grade the audit activity from general practices in 1993–4. They were asked whether they had used published schemes such as the Oxfordshire or Kirklees systems (boxes 1 and 2), or whether the advisory group had modified one of these to meet its own requirements, devised its own method, or adopted a completely different method.

The advisory groups were also asked to report the findings of their monitoring of practice audit activity in the three years 1991–2 to 1993–4. They were asked to specify the number and percentage of general practices which had undertaken full or any audit. Full audit was defined as completion of the audit cycle, involving the implementation of appropriate change and a second data collection (equivalent to reaching code V of the six codes of the Oxfordshire scale,11 or level 6 or better on the Kirklees scale12). Any audit included full audits and any other audit activity other than data collection for contractual purposes (defined on the questionnaire as codes I and III present or better on the Oxfordshire scale11 or level 3 or better on the Kirklees scale12).

When the advisory group used its own system for classification, it was asked to divide the information into full and any audit or, when this was not possible, to report activity as any audit.

Directing and coordinating audit activity
The use of a classification system for audits not only provides a means for assessing audit activity but also provides some direction of audit by informing practices of exactly what is expected of them. Further evidence for the direction and coordination of audit activity was sought by requesting information about multipractice audits undertaken locally and known to the advisory group. An audit was defined as multipractice if it involved two or more general practices together undertaking the same audit. The advisory group may initiate audits of this type independently or in cooperation with other agencies which are organising the audit, such as local audit groups or audit committees in secondary care.

The questionnaire also asked about background information such as the number of the practices for which the advisory group was responsible and the name and position of the person completing the questionnaire.

ADMINISTERING THE QUESTIONNAIRE
The questionnaire was pilot tested by submission to 12 audit support staff. A final amended version was sent to all 104 advisory groups in England and Wales, addressed to the chair of the group. These were identified from a regularly updated, complete list maintained by the Eli Lilly National Clinical Audit Centre.
Table 1  Methods used by advisory groups to collect information about audit, 1991–2 to 1993–4. Figures are numbers (percentages) unless otherwise stated

<table>
<thead>
<tr>
<th>Year</th>
<th>No of advisory groups responding</th>
<th>Collection methods</th>
<th>Not collected</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Visits only (%)</td>
<td>Questionnaires only (%)</td>
</tr>
<tr>
<td>1991-2</td>
<td>71</td>
<td>30(42-3)</td>
<td>11(15-5)</td>
</tr>
<tr>
<td>1992-3</td>
<td>81</td>
<td>45(55-6)</td>
<td>7(8-6)</td>
</tr>
<tr>
<td>1993-4</td>
<td>77</td>
<td>43(55-8)</td>
<td>6(7-6)</td>
</tr>
</tbody>
</table>

About two weeks later, a further postal questionnaire was sent to the advisory groups which had not replied, followed by a telephone call to those still not responding. Results were analysed with SPSS-PC to produce descriptive statistics.

Results

Ninety completed replies were received (86-5% response rate). The responding advisory groups were together responsible for over 8621 general practices, individually ranging from 20 to 297 practices (mean (SD) 98 (56-1) practices).

MONITORING AUDIT

The monitoring activities of advisory groups were assessed by asking whether the groups had collected information about practice audit activity, how such information was classified, and the level of participation as recorded by the advisory group.

Eighty nine (99%) advisory groups reported that they had collected data on practice audit activity in one or more of the three years 1991–4. Sixty (66-7%) advisory groups reported that they had collected, or were in the process of collecting, data from practices about all three years and only one advisory group failed to detail the methods of data collection or report on the levels of participation for any of the three years. The most common methods used were questionnaires or visits, but some advisory groups reported using both of these or supplementing data collection with contact through audit meetings, evaluation forms at courses and workshops, or telephone interviews. Table 1 shows the reported methods of collection in each year. A total of 32 different combinations of methods were reported over the past three years. Some advisory groups collected data from all practices, but many used samples of practices.

A wide range of methods was used to collect and classify information. Table 2 shows that the Oxfordshire and Kirklees systems were used, although many advisory groups reported either modifying these systems or developing their own. Modifications and characteristics of the advisory groups’ own systems included recording the number and topic of audits undertaken by each general practice, participation by members of the primary healthcare team, and information about any changes in care that were implemented as a result of audit.

Table 2  Systems used for classifying audit by advisory groups in 1993–4, showing the characteristics of the advisory groups’ own systems where reported

<table>
<thead>
<tr>
<th>System used for classifying audit</th>
<th>No (%) of advisory groups (n = 90)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxfordshire</td>
<td>24 (44-4)</td>
</tr>
<tr>
<td>Modified Oxfordshire</td>
<td>19 (21-1)</td>
</tr>
<tr>
<td>Kirklees</td>
<td>4 (4-4)</td>
</tr>
<tr>
<td>Modified Kirklees</td>
<td>2 (2)</td>
</tr>
<tr>
<td>Advisory group’s own system noting:</td>
<td></td>
</tr>
<tr>
<td>Level of audit cycle completion</td>
<td>30</td>
</tr>
<tr>
<td>Practice team involvement</td>
<td>25</td>
</tr>
<tr>
<td>Topics selected for audit</td>
<td>31</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
</tr>
<tr>
<td>Total No of advisory groups using own system</td>
<td>40 (44-4)</td>
</tr>
<tr>
<td>Not classified</td>
<td>1 (1)</td>
</tr>
</tbody>
</table>

DIRECTING AND COORDINATING AUDIT

To assess their efforts to direct and coordinate audits, the advisory groups were asked about local multipractice audits known to them.

There were 428 different multipractice audits reported by the advisory groups. Only six (6-7%) advisory groups reported that no multipractice audit had taken place in their area. Table 4 shows the most common topics reported for the past three years. Other topics

Table 3  Percentage of practices per advisory group reported as undertaking either full or any audit (any includes full audit and audit that has not completed the cycle)

<table>
<thead>
<tr>
<th>Year</th>
<th>Full audit</th>
<th>Any audit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No of groups identifying practices undertaking full audit</td>
<td>Percentage of practices/ advisory group undertaking full audit</td>
</tr>
<tr>
<td></td>
<td>Median (%)</td>
<td>Lower quartile (%)</td>
</tr>
<tr>
<td>1991-2</td>
<td>22</td>
<td>41</td>
</tr>
<tr>
<td>1992-3</td>
<td>43</td>
<td>51</td>
</tr>
<tr>
<td>1993-4</td>
<td>35</td>
<td>61</td>
</tr>
</tbody>
</table>
Table 4  Topics selected for multipractice audits from 1991–2 to 1993–4, for which five audits or more have been reported

<table>
<thead>
<tr>
<th>Topic</th>
<th>No of audits</th>
<th>Mean No of practices/audit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>68</td>
<td>26.4</td>
</tr>
<tr>
<td>Asthma</td>
<td>53</td>
<td>25.0</td>
</tr>
<tr>
<td>Hypertension</td>
<td>17</td>
<td>15.8</td>
</tr>
<tr>
<td>Coronary heart disease risk factors/health promotion</td>
<td>16</td>
<td>25.7</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>15</td>
<td>16.9</td>
</tr>
<tr>
<td>Prescribing</td>
<td>14</td>
<td>16.2</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>14</td>
<td>24.2</td>
</tr>
<tr>
<td>Discharge letters</td>
<td>11</td>
<td>8.7</td>
</tr>
<tr>
<td>Cervical smears</td>
<td>10</td>
<td>35.6</td>
</tr>
<tr>
<td>Patient satisfaction</td>
<td>8</td>
<td>13.0</td>
</tr>
<tr>
<td>Secondary prevention of myocardial infarction</td>
<td>8</td>
<td>22.0</td>
</tr>
<tr>
<td>Contraception</td>
<td>6</td>
<td>10.0</td>
</tr>
<tr>
<td>Cerebrovascular accident/stroke</td>
<td>6</td>
<td>26.0</td>
</tr>
<tr>
<td>Leg ulcers</td>
<td>5</td>
<td>17.0</td>
</tr>
<tr>
<td>Thyroid</td>
<td>5</td>
<td>9.8</td>
</tr>
<tr>
<td>Out of hours care</td>
<td>5</td>
<td>47.0</td>
</tr>
<tr>
<td>Smoking</td>
<td>5</td>
<td>45.2</td>
</tr>
<tr>
<td>Practice nurse topics</td>
<td>5</td>
<td>17.6</td>
</tr>
<tr>
<td>Referrals</td>
<td>5</td>
<td>11.0</td>
</tr>
<tr>
<td>Radiology</td>
<td>5</td>
<td>36.7</td>
</tr>
</tbody>
</table>

undertaken by a few of the advisory groups included suicide, bereavement, palliative care, use of vitamin B12, record keeping, stress among general practitioners, hayfever, and schizophrenia.

Discussion
The results of this survey show that most of the advisory groups have been industrious in directing, monitoring, and coordinating audits in general practice over their first four years. It is also clear that audit activity in general practice has increased in quantity and improved in quality over the lifetime of the advisory groups. As an example of a national programme in promoting audit by general practices, the advisory groups have achieved much. The model of a local professional group given opportunity, structure, and funding to develop audit among its peers has been effective and provides an example which could be considered in organisations that provide primary and secondary health care in other countries.

Nearly all advisory groups reported collecting information about practice audit activity to monitor progress. However, no standard method was used by all the advisory groups and some advisory groups used a different method from one year to the next. Questionnaires, visits, and interviews have all been used in different combinations and with various sampling methods. This may have caused variability in the nature and quality of the data collected, presenting problems in making comparisons about participation in audit from year to year in the same advisory group area and between different advisory groups in the same year. The use of a wide variety of methods to collect data from general practices may partly be explained by the fact that the directive which established advisory groups provided no specific instructions about the collection of information or by the variation between advisory groups in the number of practices for which they are responsible. A previous study showed that advisory group funding bears little relation to the number of practices for which groups are responsible.1 It is likely, therefore, that data collection methods will vary in relation to the resources at the advisory groups' disposal and the circumstances in which they operate. For example, an advisory group responsible for 50 practices is more likely to be able to visit all practices than one responsible for over 250.

The variety of methods used for collecting information on audits makes confirmation of the absolute level of participation in audits difficult. These problems could be overcome if a standardised method of data collection were used. Therefore, it would be unwise to place too great a weight on the finding that nine out of 10 practices are reported to have undertaken some form of audit in 1993–4. However, although the absolute level of participation is not clear, the findings clearly show that levels have steadily increased. The lower and upper quartiles of the level of participation are likely to exclude those advisory groups which used unusual definitions of audit, and so the increase each year probably confirms the evidence of increased audit activity. Indeed, the increase over the lifetime of the advisory groups may be underestimated. The level of activity reported in 1991–2 should not be taken as a baseline figure for audit levels in general practices before the creation of advisory groups because some general practitioners may have responded to the impending arrival of advisory groups by starting to undertake audits. In one local study in 1990 the proportion of general practitioners who undertook audits was 18%4 and in a second study it was 40%.16

The rate of response to the questionnaire was satisfactory and the few non-responding advisory groups were not clustered geographically, by health authority region, or by size. The study therefore provides representative information about the activities of the advisory groups.

In this study, coordination and direction of audit was assessed by identifying multipractice audits in which the advisory group had been involved. Only a few advisory groups reported that no multipractice audits had taken place in their area. A wide range of topics had been considered including those of clinical importance (for example, diabetes and asthma), organisational aspects of care (for example, out of hours care and referrals), and those which may be more difficult to evaluate (for example, bereavement and palliative care). They also included those relevant to the Health of the Nation targets17 (risk factors for coronary heart disease and suicide) which are not only clinically important but examples of how clinical audit can have a role in implementing national policy. The large number and range of topics considered by multipractice audits suggest that advisory groups have directed and coordinated audits. That is not to say that the organisation of multipractice audits is the only way that advisory groups have coordinated audits.

Policies on coordination can be seen to be reflected in the membership of advisory groups. Previous studies have indicated that most advisory groups have succeeded in forging links with both academic organisations
Assessing with other clinical by for responsible through representation through hospitals.7 

However, happening. finding would be were that method which enabled them led enabled a method involved what audit activities should involve involving the community, and are beginning to have patient representatives, as recommended by Humphrey and Berrow.5

Advisory groups have also helped in defining the type of audit expected of general practices. Many advisory groups had used some classification method which enabled them to identify full and any audit, and therefore had not only enabled monitoring of audit activity but also directed what audit activities should be happening. However, different classifications were used by different advisory groups, which led to problems in aggregating data across advisory groups. A standardised classification method would make comparisons easier, but requires a commonly accepted definition of audit. The responses suggest that this does not yet exist. For example, one advisory group reported that 100% of their general practices were undertaking full audits even in 1991. This finding would be unlikely if the definition of audit involved completing the audit cycle. However, it could be explained if full audit were defined as merely collection of data to fulfil the general practitioner’s contract. The use of the two classification systems provided by the Oxfordshire advisory group11 14 and the Kirkles12 advisory group may provide the starting point for a common operational definition of audit.

This study provides encouraging information about the activities of the advisory groups. The efforts they have expended on classifying audit and seeking information from general practices indicate that they have successfully taken on the task of monitoring audit in general practice. The number of multi-practice audits is considerable and provides evidence that advisory groups direct and coordinate audits. Although the absolute level of participation is unclear, levels as reported by the advisory groups have steadily increased over their lifetime. Research is now needed to confirm the amount of participation and to determine whether the work of the advisory groups has led to benefits in patient care.

We thank all the advisory groups who responded to the questionnaire and the constructive comments of anonymous referees. This study was funded by the Department of Health. 

References:


12 Supplement to Kirkles MAAG Audit Gazette, 8 June 1993.


