

# Training for audit: lessons still to be learned

J R M LOUGH

T S MURRAY

## SUMMARY

**Background.** *Audit is a criterion for training in general practice, and registrars are reliant on their trainers' teaching of basic audit methods. Their ability to teach this had been assumed, but registrars' projects submitted as part of summative assessment offered an opportunity to test this.*

**Aim.** *To test trainers' knowledge of basic audit methods. Their knowledge was based on an ability to recognize key audit criteria using a marking schedule that they had helped to create.*

**Method.** *All 158 trainers in the west of Scotland were asked to mark five general practice registrar audit projects using a marking schedule consisting of five independent criteria. Each project had one criterion that was below a level of minimum competence, as agreed by a group of 'expert' assessors.*

**Results.** *A total of 114 trainers (72%) completed the marking exercise of five audit projects. Three (3%) correctly identified the five criteria that were below minimum competence. They did this by highlighting many other criteria not below minimum competence. For all trainers, there was a direct relationship between the number of criteria they correctly identified as being below minimum competence and the total number of other criteria that they incorrectly identified.*

**Conclusion.** *Trainers are failing to recognize basic audit methodology using a marking schedule they themselves helped to design. This has implications for their ability to teach audit to their registrars and may explain some of the difficulty in implementing audit.*

**Keywords:** *audit; summative assessment; GP registrar.*

## Introduction

THE General Medical Council, in its recent publication *Good Medical Practice*,<sup>1</sup> reminds doctors of their duty to 'monitor and improve the quality of health care' and to 'take part in regular and systematic clinical audit'. The Clinical Outcomes Group describes clinical audit in the National Health Service (NHS) as 'alive and well', and it is seen as the 'hallmark of good professional practice'.<sup>2</sup>

Audit became a criterion for training practices in 1990.<sup>3</sup> Despite this, problems in training practices in the west of Scotland were identified in implementing audit.<sup>4,5</sup> This was confirmed at training practice reaccreditation visits, where, if the criterion for audit was to be strictly applied, very few practices would have been reaccredited because of the paucity of audits presented.

In August 1992, a new regulatory process for accrediting trainee general practitioners (GPs) was piloted in the west of Scotland<sup>6</sup> in response to a statement from the Joint Committee on Postgraduate Training for General Practice (JCPTGP) for a national standard for entry into general practice based on a 'com-

petent system of assessment'.<sup>7</sup>

Trainee GPs were summatively assessed with reference to standard criteria for minimum competence in knowledge (multiple choice paper), a written submission of practical work (an audit project), consulting skills (videotaped consultations), and a trainer's report.

For the audit component, the development of a marking schedule based on five independent criteria was crucial in identifying basic issues of audit methodology that GP trainers in the region felt were essential in the projection of an audit project that was above minimum competence.

The five criteria were reason for choice, criteria chosen, preparation and planning, interpretation of data, and detailed proposals for change.<sup>8</sup>

Vocational training was introduced in the 1970s to provide an 'excellent model of general practice professional training appropriate to the early years of any discipline'.<sup>9</sup> The role model of the trainer would ensure that a rigorous approach to sound practice was adhered to. Training practices have recently been described as being more developed in the introduction of audit, an assumption that could imply that knowledge of audit methodology was sound.<sup>10</sup>

Initial results from summative assessment, however, suggest that a small number of general practice registrars are still below minimum competence in their understanding of basic audit methods.<sup>11</sup> Summative assessment does not directly test the trainers who are providing the necessary training in audit, but their input is clearly a factor in its success.

A report from the Standing Medical Advisory Committee<sup>12</sup> stated that 'an understanding of the principles of medical audit must become an established part of undergraduate and postgraduate education.'

When medical audit was being encouraged as part of the new contract in the NHS in 1990, there was an assumption that the skills necessary to undertake audit were understood. These skills, however, are not universally taught at undergraduate level,<sup>13</sup> although one evaluation of such teaching showed a significant improvement of knowledge in audit.<sup>14</sup>

It would appear that summative assessment has revealed that audit may not be happening as systematically as is perceived, and that the problems in implementing audit as a routine part of clinical care may prove more difficult than was envisaged in the 1989 NHS reforms, which described medical audit 'as a fundamental principle of the review'.<sup>15</sup>

We undertook this study to determine whether trainers understand the basic components of an audit project, upon which their registrars are being assessed.

## Method

In July 1994, 158 trainers in the west of Scotland were sent five registrar audit projects and a marking schedule for each. For each project, the trainer had to recognize one of the five criteria present in the marking schedule as being below minimum competence as judged by five 'expert' assessors who had been involved in the development of the marking schedule and who had gained two years' experience in assessing registrar audit projects. As each project was independently screened by three different assessors, their exposure to a wide variety of audits of varying quality was assured.

JRM Lough, MRCP, assistant adviser in general practice (audit); TS Murray, FRCGP, adviser in general practice, Department of Postgraduate Medical Education, University of Glasgow. Submitted: 28 June 1996; accepted: 1 November 1996.

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To achieve a pass in all, three assessors had to agree. If at least one assessor was doubtful that one or more of the criteria might be below minimum competence, the project was 'referred' for assessment by two more senior colleagues, who made the final judgement on whether the project passed or was returned to the registrar for further work to be done, as it was still below minimum competence.

The trainers were not given any information on the judgements made by the original audit assessors as to whether the audit had been passed or referred for resubmission by the registrar.

## Results

A total of 114 trainers (72%) responded to the marking exercise after two follow-up requests. For the five projects chosen, two criteria were judged to be below minimum competence (criteria chosen and interpretation of data) by all five assessors, two (proposals for change and preparation and planning) by four out of five assessors and one criterion (reason for choice) by three out of five assessors.

In all cases, the majority of trainers judged the criteria to be above minimum competence. The results are shown in Table 1.

The trainers' judgements for all five criteria were then analysed to check what percentage were correctly identified as being below minimum competence.

In addition, the number of times all other criteria were judged to be below minimum competence was recorded for each trainer. The three trainers who most closely identified all five correct criteria did so by referring a mean of 8.3 criteria each. The 34 trainers who identified only one of the five criteria did so by referring 2.1 criteria. The results are shown in Table 2.

Finally, all five projects were referred for resubmission by the assessors. The overall trainer judgement as to whether a project should pass or fail was analysed.

All five projects were passed by the majority of trainers; one of the projects (D) by nearly all trainers. The results are shown in Table 3.

## Discussion

The audit component of summative assessment has provided a snapshot of general practice registrars' understanding of basic audit methodology. The key to their learning is their general practice training year, given that for 72% of the registrars' summative assessment is their first practical experience of an audit.<sup>5</sup>

The five criteria that constitute the marking schedule do not include a completed audit cycle. This was at the specific request of the trainers, who felt that the training year did not allow sufficient time to collect two sets of data. For them, an audit did not require evaluation of change. This marking exercise warns that their knowledge of some basic audit techniques may also require improving.

The key message is that three trainers, out of 114 who responded, recognized all five criteria that were judged to be below minimum competence by a relatively more experienced group of assessors. The trainers achieved this by exhibiting 'hawkish' behaviour in their marking — a strong direct relationship was found between the number of criteria 'correctly' identified as being below minimum competence and the mean number of total criteria identified as being below minimum competence. Statistical advice was sought as the results were so overt.

Two possible limitations require further discussion. First, the 'expert' assessors themselves did not all agree on the level of competence of some of the criteria, but the level of agreement was significant. The five projects were chosen to maximize the unanimity of the assessors and we had to accept that disagreement on difficult areas of assessing audits had to be taken into account. The criterion over which agreement among the assessors was weakest was 'reason for choice'. This may be explained by the fact that the many reasons given for choosing a particular audit project appear to be difficult to assess, and a decision about minimum competence is often more controversial.

The five projects were chosen from a cohort of 104 registrars, only 10% of whose projects were judged to be below minimum competence. The five used in this exercise were therefore taken from a very small potential pool.

**Table 1.** Trainers' versus assessors' judgements on minimum competence for each criterion.

Project no.	Criterion for assessment	Assessors' judgements of minimum competence (n=5)		Trainers' judgements of minimum competence (n=114)		Left blank
		Yes	No	Yes	No	
A	Reason for choice	2	3	89	21	4
B	Criteria chosen	0	5	87	24	3
C	Preparation and planning	1	4	81	32	1
D	Interpretation of data	0	5	93	17	4
E	Detailed proposals for change	1	4	64	48	2

**Table 2.** Trainers' marking behaviour when assessing criteria for minimum competence.

No. of criteria to be identified correctly	No. of trainers correctly identifying criteria at below minimum competence	No. of other criteria identified as being below minimum competence	Mean no. of times other criteria judged below minimum competence
5	3	25	8.3
4	4	27	6.7
3	7	41	5.9
2	27	102	3.8
1	34	72	2.1
0	39	—	—

**Table 3.** Trainers' versus assessors' overall judgements on minimum competence for each project.

Project no.	Assessors' overall judgement		Trainers' judgements		Left blank
	Pass	Refer	Pass	Refer	
A	0	5	61	50	3
B	0	5	66	36	2
C	0	5	66	47	1
D	0	5	92	18	4
E	0	5	63	49	2

The second limitation is the possible unfamiliarity of trainers with the marking schedule being used. All trainers, however, have had their own copy of this schedule for nearly two years and have been encouraged to use it as a guide when helping the registrar prepare an audit project.

They were also instrumental in the original crafting of the schedule: all were asked to prioritize criteria for an audit project that they felt they could support. These had been developed by the expert group. We feel, therefore, that most trainers will have had the opportunity to test the marking schedule themselves.

Acknowledging the difficulties in carrying out this exercise with a limited number of audit projects as a resource and an assessment process still at an early stage of evolution, the results give warning that those who are responsible for teaching future GPs about audit do themselves require to be taught about basic audit methods. This confirms anecdotal evidence from the registrars themselves that the support they feel they require is lacking in audit teaching and from training practice reaccreditation visits where audits presented are poor in quality, with fewer than 10% of one sample having completed one audit cycle.

The solution to this problem is not easy: two audit courses for trainers on teaching audit methods have had to be cancelled because of lack of interest. More optimistically, the marking exercise was generally felt by the trainers to be very useful, confirmed by the 72% response rate which, given that this marking exercise would have taken between one and two hours to complete, is very gratifying. Requests for a repeat exercise will be noted. The aim is to encourage comparisons among trainers at a district level, allowing those relatively more experienced in audit to encourage those who lack the confidence to teach audit methods. Progress will be monitored through further marking exercises as more material becomes available from further cohorts of registrars submitting their summative assessment audit projects.

Our conclusion is that, despite much clamour about the need for regular systematic audit as part of good medical practice, experienced GP trainers are struggling to recognize even basic audit methodology. Their behaviour when marking suggests that they are also unaware of this deficiency. Considerable help needs to be given to overcome this.

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## Address for correspondence

Dr J R M Lough, Department of Postgraduate Medical Education, University of Glasgow, 1 Horselethill Road, Glasgow G12 9LX.