

Junior doctors and clinical audit

Abstract – **Objectives:** to assess the extent of junior doctor involvement in clinical audit, the degree of support from audit staff, and the perceived value of the resulting audits.

Design: postal survey of National Health Service (NHS) junior doctors.

Subjects and settings: 704 junior doctors in central Leeds hospitals, June 1996.

Results: questionnaires were returned by 232 respondents (33%), 211 (31%) were completed; 157 respondents (74%) had personally performed audit. Mean (\pm SD) duration since last audit project was 14.9 (14.1) (range 0–84) months. Of the respondents who had personally performed audit, 88 (56%) did not use the hospital audit department, 60 (38%) received no guidance and only 19 (12%) were involved in re-auditing the same project. Mean (\pm SD) time spent per audit project was 27.8 (37.7), (range 2–212) hours. Seventy-five junior doctors (48%) were aware of subsequent change in clinical practice, 41 (26%) perceived a negative personal benefit from audit, 33 (21%) perceived a negative departmental benefit, and 42 (27%) felt that audit was a waste of time.

Conclusions: a large proportion of junior doctors are involved in audit projects that do not conform to established good practice and which have a low impact on clinical behaviour. Although junior doctors feel that there is inadequate assistance and poor supervision whilst performing audit, they still support the principle of audit. There is a need to improve the quality and supervision of audit projects performed by junior doctors.

The Department of Health defined audit in 1989 as: 'systematic, critical analysis of the quality of medical care, including the procedures for diagnosis and treatment, including the use of resources and resulting outcome of the patient'^{1,2}. The Royal College of Physicians produced a similar definition and acknowledged the role of audit in medical education³. Despite these definitions it remains unclear who is being audited, for whom clinical audit is undertaken and whether it is an educational tool or a means for measuring contract performance⁴. The Department of

Health has commissioned a major review of the clinical audit initiative⁵, and the Public Accounts Committee is concerned about value for money⁶.

The national programme of clinical audit was introduced largely untried, untested, and with little evidence that it would lead to improvements in quality of care^{7,8}. In recent years, interest in this area has expanded enormously, and it demands considerable health service resources. Although an estimated £220 million was spent on clinical audit between 1989 and 1994⁹, doubts have been raised about its effectiveness in improving the quality of patient care^{10,11}.

Participation in audit is now a mandatory requirement for the accreditation of junior doctor training posts in the UK. Existing surveys of audit activity have focused on managers and dedicated audit staff¹², who may have a vested interest in projecting a positive impression. Meanwhile there are few data relating to the involvement of junior doctors in audit and their perception of the audit process^{13,14}. The aims of this study were to ascertain the level of personal involvement and supervision of junior doctors performing audit, and to gauge their perceptions of the value of audit.

Methods

We sent an audit questionnaire to all junior doctors in our locality with a covering letter clearly indicating that the survey was being undertaken by other junior doctors, and that replies would be confidential. If audit had been performed they were asked to answer questions relating to the nature of their involvement, what guidance they had received, whether they had used the hospital audit department, and whether the project was re-audited at a later date. Respondents were asked to estimate the amount of time spent on their audit project, and state how much of it was spent at work and how much out of hours. We used Likert scales to assess attitudes. Responses were categorised into three groups: negative perception (score 0–3), ambivalent (score 4–6) and positive perception (score 7–10).

The postal survey took place in June 1996, timed to correspond with the latter part of the medical year, to allow present incumbents the maximum potential exposure to clinical audit before rotating to new posts. Self-addressed envelopes suitable for the internal mailing system were included in an attempt to boost response rates. Reminders were not sent because many potential respondents would have moved to different posts before they were delivered.

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Table 1. Breakdown of respondents according to medical speciality.

Specialty	Respondents	
	n=211	%
Medical	97	46
Surgical	55	26
Anaesthetics	4	2
Casualty	4	2
Radiology	7	3
Pathology	11	5
Unknown	33	16

Table 2. Audit experience of respondents by clinical grade.

Grade	n	Audit experience	No audit experience
Junior House Officer	14	4	10
Senior House Officer	65	39	26
Registrar	49	37	12
Senior Registrar	52	49	3
Unknown	31	28	3
Totals	211	157	54

Results

Of the 704 questionnaires distributed, 232 (33%) were returned and 21 were marked 'unknown in this department'. The resulting sample size of 683 gave a response rate of 31%. The specialties of the respondents are shown in Table 1.

A total of 157 (74%) respondents had personally performed an audit project, and the analysis per clinical grade is shown in Table 2. The mean (\pm SD) time since graduation was 6.4 (4.1), (range 1–26) years, the majority having graduated in the past ten years. The mean (\pm SD) interval since their last audit was 14.9 (14.1) (range 0–84) months.

The idea for the audit project was initiated by the respondent in 48 (31%) cases, by the consultant in 85 (54%), within the department in 15 (10%), by a colleague in 8 (5%), and was unknown in one case. Of the 109 (69%) respondents whose project was not their own idea, 97 (89%) thought at the outset that it was a good subject to audit.

Eighty-eight (56%) of the respondents who had personally performed audit had not received active support from the hospital audit department. Sixty (38%) received no guidance or supervision from senior colleagues and only 20 (13%) were given protected time away from their clinical duties in which to collect or analyse their data. Table 3 illustrates the time spent at work and out of hours per audit project for respondents who had performed audit. The mean (\pm SD) audit time per project was 27.8 (37.7), (range 2–212) hours.

Table 3. Time spent by junior doctors on audit projects.

Place	n	Time spent	Range
		mean \pm SD (hours)	(hours)
At work	145	13.0 \pm 24	0 – 200
Out of hours	143	14.7 \pm 21.8	0 – 212

Audit projects were presented by 121 (77%) of the respondents who had collected data. Alterations to clinical practice followed 75 (48%) of these audits. However, the same project was known to have been re-audited in only 19 (12%) cases. Perceptions of the value of junior doctors' audit experiences are shown in Table 4.

Table 4. Junior doctors' perception of their audit experiences. Score (0–3) represents a negative perception, (4–6) ambivalence, (7–10) a positive perception. Percentages rounded to nearest whole number.

Questions	n	Mean (SD)	Scores			
			(0–3) n (%)	(4–6) n (%)	(7–10) n (%)	No reply n (%)
Audit experience useful to you	156	5.2 (2.5)	41 (26)	62 (39)	53 (34)	1 (1)
Audit experience useful to department	152	5.6 (2.4)	33 (21)	57 (36)	62 (39)	5 (3)
Audit experience time wasted	156	5.1 (2.3)	42 (27)	66 (42)	48 (31)	1 (1)
Any change in clinical practice	139	4.0 (2.7)	61 (39)	55 (35)	23 (15)	18 (11)
Audit department useful	123	3.8 (3.2)	59 (38)	32 (20)	32 (20)	34 (22)
Guidance or supervision given	147	4.3 (2.5)	62 (39)	57 (36)	28 (18)	10 (6)

Discussion

Our study shows disappointing results with regard to the overall perceptions of audit, the frequency of support from local audit departments, the level of supervision given and the impact on clinical practice. Specifically, in over 85% of cases the audit cycle appears not to have been completed. Our findings are consistent with those from a recent survey in the USA in which only 20% of respondents felt that audit had altered clinical practice¹⁵. A large number of doctors appear to be involved in processes that are labelled as audit, but which in reality do not conform to the basic principles of audit¹⁶.

Interpretation of our findings is tempered by the response rate of only 31%. By contrast a recent survey of audit committee chairmen achieved a response rate of 76%¹⁷. This was presumably a highly motivated group with a positive attitude towards audit and stable employment. Our response rate, achieved without reminders or second mail-outs, is not atypical of postal surveys¹⁸. However, one cannot dismiss the potential for bias in the results with this low response rate. It could be argued that those responding were more enthusiastic about audit or more likely to have performed an audit project than those who failed to respond. This is supported by the finding that the majority of respondents had personally performed audit projects and that very few felt that this was time wasted. It is perhaps equally possible that trainees who had taken part in unsatisfactory audit wanted to express their frustration, and so may have felt a strong desire to complete the questionnaire.

In this study, involvement in audit was clearly related to the clinical grade of the respondent. Whilst few pre-registration house officers had personally performed audit projects, most of those in other clinical grades had. However, few respondents had performed audit on a regular basis; interval times averaged fifteen months, which falls short of the recommended guidelines from the Royal Colleges¹⁹.

Although the majority of audit projects appeared to have been initiated by other parties, the audit topic was perceived to be appropriate in 89% of cases. This suggests that audit is well perceived, even if poorly practised. Once again, this conclusion may be biased by the respondents having a more positive attitude towards audit than those doctors who failed to respond. Quantitative assessment of junior doctors' experiences of audit revealed negative perceptions of the hospital audit department, the level of supervision, and the impact of audit on alterations in clinical practice. Despite these perceptions, somewhat paradoxically only 27% of respondents felt that their audit experience had been a waste of time, although any benefit was considered departmental rather than personal. A high proportion felt that audit had little influence on clinical practice. This perception is consistent with results from the National Audit Office⁴. Only one-fifth

of junior doctors felt that the hospital audit department had been useful to them or that the level of supervision had been adequate. These findings of junior doctors' general ambivalence and negative perceptions to audit are similar to those of medical staff of all grades interviewed in 1991 soon after the introduction of clinical audit¹³.

The large resources afforded to the NHS for the purpose of audit do not appear to have assisted junior doctors in their performance of audit projects. Over half the respondents did not use the hospital audit department. Although this was a 'closed' questionnaire, a number of respondents who had not used their hospital audit department even felt the need to comment on the difficulties they had encountered in attempting to do so. They felt that they had received little supervision in performing their audit projects, and few had been given protected time away from clinical duties. Retrospectively, the respondents estimated that they had spent on average over three working days on each audit topic, over half of which took place outside contracted hours. This culminated in the work being presented in the majority of cases, although only 12% of topics were known to be re-audited and the audit cycle completed. These findings are consistent with the results of the National Audit Office when they reviewed clinical audit projects in three regional health authorities⁴ and support the view that audit is a burdensome chore that has been imposed on an already busy medical profession without adequate resourcing²⁰.

Successful or worthwhile audit needs to be part of a continuous process of managing change. In particular, adequate resources should be available both to implement the changes suggested by audit and to show that these changes do lead to an improvement in quality of care. However, it is also necessary to select and plan individual audit projects more rigorously, in order to prevent inappropriate audit and inefficient use of time and resources. Like any other life experience, failed audit will create disillusion and make clinicians reluctant to do more audit, whereas a successful project builds confidence and creates genuine enthusiasm to tackle other problems.

There is also a need for clinical audit to be integrated into daily working practice or undergraduate medical education. Achieving this may address the conflict that currently exists between clinical audit as a tool for education and professional development, and for monitoring contract performance⁴. This requirement is matched by the need for an audit process that enables junior doctors to continue to participate, despite their rotation between specialties and regions throughout the country. Although the latter may be difficult to implement, the development of audit projects at a national level, focusing on a defined clinical problem in which all hospitals could participate, would at least standardise the audit process for a training purpose. An effective programme of audit will

help to assure doctors, patients and managers that the best possible quality of service is being achieved within the resources available^{1,2}.

Conclusions

A large number of junior doctors are involved in processes which, although labelled as audit, do not follow best practice. This consumes a large amount of health service and voluntary time. Junior doctors in this study felt inadequately supported by the hospital audit departments, and lacked both supervision from senior doctors and protected time in which to collect or analyse their data. Although their experience of audit was adverse, they do support the concept of audit. The medical profession's suspicions about clinical audit appear to reflect concerns that the present methods are not effective. There is thus a clear need to improve the quality of audit procedures performed by junior hospital doctors so as to harness that underlying support.

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