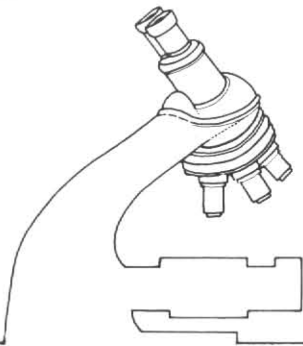

INVESTIGATIONS AND REPORTS

An Audit of Deaths in General Practice

J. Ashton, G. Oliver, A. Grant and G. K. Taylor

Evaluation of Medical Care

THE renaissance of general practice over the past decade has coincided with a dramatic change of emphasis away from hospital medicine towards the community, in this country and in the USA. The factors mainly influencing this in the USA have been financial ones resulting from increased government involvement in financing health care and a concern to find cheaper organisational structures for health delivery (Ashton 1975). This concern has spawned a number of new ideas including the audit or evaluation of medical care by peer groups. This has been taken up with some enthusiasm by workers in this country who have seen it as a useful tool for raising the standards of clinical practice (Mason and Simpson 1974).

The problems involved in implementing an audit appear to be far reaching. They range from the anxieties of doctors about having their work scrutinised to the general inadequacy of record keeping and the difficulty in defining outcome for any particular medical problem. It was an attempt to examine clearly the potential and limitations of audit in ordinary general practice that the Ashington Audit Group was organised by Dr. Donald Irvine and Dr. Reginald Carr. The organisation and brief of this course is to be described fully elsewhere but one of the stated aims was to explore the value of the group in facilitating self audit (peer group review).

The group consisted of 25 principals of varying age and experience who practised throughout the north-east of England, with the two course organisers who are local general practitioners and postgraduate teachers. The group met every fortnight for four months. During this time working parties reviewed the management of selected clinical problems including those problems which ended in death.

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The Deaths Audit

All course participants were asked to provide details of any deaths (with which they had been associated), in their practices. Altogether 55 deaths were included in the study; two cot deaths in young infants were excluded because of insufficient information. The collection of deaths was not exhaustive because this would have involved the audit team in an impracticable amount of work pursuing notes. Therefore, the exercise was seen more as a pilot study than a full research project. Despite the modest aims a considerable amount of information was gathered, raising more questions than were answered and once again focusing attention on the central problem of adequate record-keeping.

The breakdown of the causes of death by age and sex (Table 1), system (Table 2) and process (Table 3) is shown.

Table 1. Deaths—cumulative figures.

	M	F
1–20	0	0
21–40	3	1
41–60	9	3
61 +	21	18

Place of death: home 33, hospital 22.

Table 2. Cause of death (system).

	M	F
Cardiovascular	18	7
Central nervous	6	3
Pulmonary	3	5
Gastrointestinal	3	6
Genitourinary	2	0
Haemopoietic	1	0
Skeletal	1	0
Endocrine	0	1

Table 3. Cause of death process.

	M	F
Neoplasia	8	9
Degenerative	23	10
Accident	1	0
Suicide	0	0
Infection	1	0
Metabolic	0	1
Unknown	0	2

It was noted with some surprise that 33 of the 55 subjects had died at home. Generally the causes of death reflected those in the Registrar General's analysis for 1971, although respiratory deaths were felt to be under-represented for a coal-mining area. The team then focused particular attention on the 16 deaths occurring in those in the 60 years of age and under category. Details of these are in Tables 4 and 5.

In extracting information from the deceased records the audit team addressed itself to three questions:

1. Was the death expected in the light of the patient's previous medical history (Table 6)?
2. Were the medical notes adequate to form an opinion of the quality of management (Table 7)?
3. What queries and points were raised as a consequence of questions 1 and 2 (Table 8)?

The Three Main Groups

Members of the audit team independently reviewed records of the deceased and made notes of criticisms they felt justified. It became apparent that the records and case management could be criticised either because of what the records did not contain, or because they were full and provided the means to full care assessment. The results obtained were a mixture of both these views and could be separated into three main groups.

The first group concerned the structure of the notes and criticisms listed are self-explanatory. They are not exhaustive but represent the main common problem.

Criticisms of the case management were only possible in those cases where records were well kept. This probably meant that the well-documented cases were the better managed cases, and major criticisms were few. However, the most striking point was the lack of any formal method for regular supervision of chronic disease. Consequently, patients became 'lost' to regular follow-up.

Table 4. Deaths under 40 years of age.

Male	
1. (32 years)	Cerebral haemorrhage. Widower. Sudden death in bed. No previous medical history of note.
2. (26 years)	Adenocarcinoma of gastrointestinal tract.
3. (40 years)	Myocardial infarction. Six months' history of ischaemic heart disease. BP 170/100. Obese. 30 cigarettes a day. Death during an episode of diarrhoea and vomiting.
Female	
1. (36 years)	Cardiac arrest. Clinical diagnosis of pulmonary tuberculosis. Pathological diagnosis—sarcoidosis.

Table 5. Deaths 40 to 60 years of age.

Males	
1. (48 years)	Sarcoma of the right hip with multiple secondary deposits. Two months' delay between being seen by the surgeon and biopsy being carried out.
2. (54 years)	Myocardial infarction. Hypertension and angina for three years. 30 to 40 cigarettes a day. Eight pints of beer a day. Weight: 15 stone. BP initially 200/100 but reduced to 150/90 under supervision with weight-loss of two stone.
3. (44 years)	Myocardial infarction. Alcoholism and depression.
4. (53 years)	Bronchogenic carcinoma. Chronic bronchitis and heavy smoker.
5. (60 years)	Myocardial infarction. Previous infarction four years ago.
6. (44 years)	Myocardial infarction. Known tricuspid incompetence seven years. Cardiomyopathy four years. Described as 'an independent soul who failed appointments'.
7. (54 years)	Myocardial infarction. Angina hypertension and atrial fibrillation for two years. Seen by family doctor every month. Sudden death.
8. (60 years)	Myocardial infarction.
9. (47 years)	Myocardial infarction seen six years ago for full neurological assessment because of ischaemic cerebral episodes but subsequently no follow-up.
Females	
1. (58 years)	Motor neurone disease. Previous carcinoma of the breast described as 'cured'.
2. (59 years)	Pancreatic carcinoma. Presented with jaundice. Diagnostic laparotomy showed inoperable lesion. Urgent surgical opinion took one month.
3. (57 years)	Coma in association with oesophageal carcinoma. Five months' history of epigastric pain and falling haemoglobin leading to laparotomy.

Table 6. Number of expected and unexpected deaths.

	M+F
Unexpected death	24
Expected death	31

Table 7. Adequacy of clinical notes.

	M+F
Adequate	30
Inadequate	25

Table 8. Summary of points raised from audit of deaths.

Notes
1. Inadequate clinical details.
2. Illegible writing.
3. Notes not tagged for specific conditions.
4. Lack of copy letters.
5. Sudden deaths not recorded.

Medications
1. Drug treatment sometimes illogical.
2. Not all treatment recorded.
3. Dosage, tablet strength and quantity not recorded.
4. Repeat prescriptions without recall.
5. Lack of repeat prescription cards.

Case management
1. Known chronic disease inadequately followed, e.g. hypertension.
2. Delay in diagnosis is because of insufficient investigation.
3. No record of what patient and/or relatives told.
4. Lack of ancillary staff notes/involvement.
5. No recall system for poor attenders.
6. Poor hospital/general practice communications.

Insufficient use of diagnostic tools available to the doctor occasionally caused delay in diagnosis, but it must be said that this assessment was made with the benefit of hindsight.

In the area of medication many inconsistencies were noted and are listed. Illogical treatment was seen in the prescription of iron preparations when the patient was not anaemic. It may be that such treatment is merely a placebo, but this ought to be stated and recognised by the doctor. Occasionally a diagnosis was not followed by the accepted treatment, and once again, this may be deliberate action by the doctor which ought to be made clear.

Despite the points raised, the general standard of the notes adequate for assessment was high, with criticisms being more of the organisation of care than the actual medical management.

Discussion

The findings of the audit group were presented to a plenary session of the audit course. The breadth of the questions raised was apparent and the usefulness of the exercise in highlighting areas of management weakness was acknowledged. In particular it was felt that this method of audit was a helpful entrée to an examination of the clinical process; that the process cannot be audited objectively without adequate notes is apparent to anyone addressing himself to this problem.

The discussion of particular case histories was found to be a valuable way of highlighting specific weaknesses and therefore a tool of continuing education. For example, the poor general level of knowledge about the causes and management of alcoholism became apparent and the vexed question of preventive counselling could be made tangible; how far is it appropriate to pursue somebody who by his lifestyle is in effect committing suicide?

The group focused on the deaths in younger patients because this was an easier task. In younger patients questions of prevention are likely to dominate over those of the quality of care and management of death such as arise in the elderly. It seems possible to pick out factors in prevention in the younger group despite poor notes. The question of the quality of care in the elderly is altogether more difficult to assess without consistent and objective documentation.

An important issue that arose at the plenary session was the reluctance of members to request necropsies on their patients. Here was one of the few objective and readily available tools of management feedback which was being ignored. □

References

Ashton, J. R., *Update*, 1975, **10**, 1211.
Mason, A. M. S. and Simpson, P., *Hospital Update*, December 1974, 779.

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