Aspects of Audit

3: Audit in British general practice

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Summary and conclusions

Compared with hospitals, general practice has many handicaps in developing medical audit. This is especially true with regard to defining objectives and outcomes of care. Many methods have been proposed to overcome these problems, and several audit studies that have been published are presented here. Further work should concentrate on evaluating the effectiveness of audit in bringing about change rather than on generating information.

Introduction

During the past ten years many general practitioners have visibly supported medical audit. Some see audit as a response to the increasing complexity of practice which has led to a greater need for feedback and information. Others see it as a further means of raising the standards of general practice to rank alongside the foundation of the royal college, vocational training schemes, and postgraduate medical centres. In any event, in the second half of the seventies the response to the call for research into medical audit in general practice of the early seventies grew. Much of this work tried to define and suggest solutions to the problems of audit that are peculiar to general practice. Quite apart from the lack of adequate patient records, the virtual absence of reliable information on patterns of practice was a major handicap, as was the lack of clerical help, time, and suitable organisation.

General practice is concerned with people

The overwhelming challenge was (and still is) that the very nature of general practice lends itself even less to objective definition and measurement than its counterpart, the acute hospital. General practice is concerned more with people than with diagnoses, disease, and life-threatening events. The objectives take into account social and mental wellbeing and the patient's opinion as much as the clinical response. And the doctor's contribution is as much interpersonal as it is technical. Doney summed up the problem as follows: "If it is difficult to audit the care of diseases, will it ever be possible to audit the care of patients?"

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Alternatives for audit

Having recognised the problem, the researchers sought alternative indicators that did not represent the total range of care but that were easier to define. This assumes, as Forsyth and Logan stated, that "it is possible in specific areas and situations to indicate certain concrete things which ought to be done in given circumstances and then to ascertain whether they are being done or not." On this basis some favoured examining "tracer diagnoses"—that is, common, treatable, and definable conditions for which there are generally agreed patterns of management. Some suggested audit of "critical incidents," such as death, complications, and iatrogenic problems. And others analysed patterns of delay in the various stages of patient management. Mourin reviewed these and other approaches to audit in general practice in 1976.

Each approach has its limitations, however, and the usefulness of each depends largely upon the setting in which it is applied in practice. Some of the following studies were part of a continuing programme, others were isolated studies; some included several doctors, or even practices, in peer review, others were one-man projects; some were in response to identified problems, others were the byproduct of other inquiries. They give many ideas for audit, but the reader should refer to the original articles.

AUDIT STUDIES IN GENERAL PRACTICE

Community hospital (Kirk and Lee-Jones, 1976)

Aim To introduce a uniform record suitable for medical audit.
Method A problem-oriented medical record was introduced in size A4 for all patients for the joint use of general practitioners, consultants, and nurses. At regular audit meetings attended by doctors and senior nursing staff statistics were reviewed as well as individual cases.
Conclusions The problem-oriented record reduced duplication and improved communication but cost money and some confidentiality. Combined audit by nurses, consultants, and all general practitioners allows review of a wide range of clinical problems. Education and appropriate change in practice do follow.
Comment The necessity for adequate, uniform records is emphasised. The decision to include nursing and other staff seems especially appropriate in primary care so long as the intention is to audit practice rather than the practitioner.

Consultation technique (Verby et al, 1979)

Aim To observe the effect of peer review of consultation techniques on experienced general practitioners.
Method Seventeen general practitioners were recorded on videotape during 30 minutes of consultation. Five of them then met weekly to review and discuss each other's recordings, but the other 12 did not. All the doctors were then recorded again and rated according to a validated scale.

Findings The peer review group improved their technique significantly. Higher scores correlated with longer consultations.
Conclusions Experienced doctors can influence change in each other. The five-minute appointment system should be re-examined.

Comment Since communication is so critical to the process of care, several authors (Stott and Davis and McColl *et al*) see it as a reflection of the overall quality of care.

Prescribing patterns (Birmingham Research Unit, 1977)

Aim To examine differences in prescribing patterns to establish value judgments on the best use of psychotropic drugs.
Method Four doctors in group practice kept carbon copies of all new prescriptions for one week and repeats for one month. Comparisons were made within the group and with national figures of prescribing rates and therapeutic categories.
Findings Half of the prescribing load (and therefore cost) was for repeat prescriptions. Although new prescriptions for hypnotics and tranquillisers were restricted, repeats were not, leading to long-term accumulation.
Conclusions This method provides a simple and effective basis for discussion. It applies not only to other drug groups but also to referrals for diagnostic and therapeutic services. The evolution of internal comparative judgments avoids imposing less appropriate, absolute values. A central confidential data bank of comparable analyses would allow baselines appropriate for audit to be established.

Comment Such an objective description of prescribing patterns might be expected to lead to more appropriate therapeutic intervention but Reilly and Patten showed little change on a three-week follow-up in a similar study, despite group discussion and verbal agreement to change. In another study, Sheldon showed a change in prescribing habits two years after audit but was left with the suspicion that prescriptions were being replaced by referrals for investigation as the final event of consultations.

Clinical management and preventive medicine (Ryan et al, 1979)

Aim To examine various methods of clinical review.
Method Three single-handed practitioners working in the same health centre used a simple information system and problem-oriented records to analyse aspects of clinical management (minor respiratory illness, urinary tract infection, and prescribing patterns) and preventive medicine (influenza vaccination and recording of blood pressure).
Findings Wide variation in the prescribing of antibiotics and cough mixture in minor respiratory illness invited a consensus on management and repeat of the audit. A previously agreed policy on mid-stream specimens in urinary tract infections was not being fully applied. Low compliance with an agreed policy to record blood pressure routinely on patients over 20 years of age was particularly noted in women using oral contraceptives and patients with known cardiovascular problems.
Conclusions The auditors were not performing as well in some of their work as they had assumed. The findings were more readily accepted because they were the result of a comparison between subjective expectation and objective observation by themselves rather than by an outside researcher. The experience led to agreement with the recommendations of the Alment Committee of inquiry into competence to practise that such studies are essential in order to achieve a high standard of clinical competence.

Deaths (Ashton et al, 1976)

Aim To explore the value of a peer group in medical audit.
Method As part of a programme of fortnightly meetings over four months, 25 principals reviewed the cases of 55 patients with whom they had been associated and who died.
Findings Weaknesses were recognised in notes (eg inadequate or illegible), medications (eg illogical or unrecorded), and case management (eg follow-up in chronic disease, poor communication with hospital).
Conclusions The method is useful for examining clinical process. Process cannot be audited without adequate records. The weaknesses shown indicate the need for continuing education.

Bookings at an obstetric unit (Aylett, 1977)

Aim To retain general-practitioner control of bookings at a local obstetric unit.
Method A rotating committee of three general practitioners compared information on each new booking (as given on the booking form and noted by the clinic nurse at the first visit) with the booking policy on contraindications previously agreed by the medical staff committee. If a booking seemed inappropriate, a note giving reasons was sent to the doctor concerned, but there was no direct sanction.
Findings Bookings of inappropriate high-risk cases diminished rapidly over two years.
Conclusion Peer review is adequate to effect a change in practice without applying compulsion.

Comment This also shows how prospective audit using locally agreed criteria can resolve a very real problem. Retrospective audit has also been used by Shapland and Marsh to evaluate booking policies of individual doctors and remote obstetric units.

Chronic disease (Doney, 1976)

Aim To examine the process of medical care of a chronic disease (diabetes) in general practice.
Method The records of 119 known diabetics in an eight-man practice were analysed.
Findings Before diagnosis, classic symptoms but no urine test were recorded in 16% of patients. Roughly one-quarter of the patients attended the general practitioner, one-quarter attended a consultant clinic, and half had no regular supervision. Only 12% were controlled on diet alone.
Conclusions Recording of diabetic control and regular follow-up was poor. Relatively low complication rates may have reflected a low detection rate. The current family practitioner committee record card is a deterrent to long-term follow-up of chronic disease. More data for comparison are needed about patients in the community rather than in hospital clinics.

Comment Problems of follow-up and recording of patients with diabetes were also noted by Kratky, but allegations of similar inadequacies in the care of epilepsy were refuted in an audit by Zander *et al*. On the basis of existing prevalence data, Wilson concluded that many hypertensive patients were not detected in his practice.

Delay patterns (Jenkins, 1978)

Aim To evaluate delay patterns as an index of medical care in general practice.
Method Seven general practitioners pooled data on 55 new cases of neoplastic disease over one year. For each case delay was analysed as that attributed to the patient and that attributed to medical services. An estimate was also made of the proportion of the latter delay that was inevitable had circumstances been ideal.
Findings Diagnostic delay was generally reasonable but there was evidently room for improvement in some cases.
Conclusions The index was probably not an adequate measure of the total quality of care, but none the less it showed specific and remediable elements of the process. The exercise raised the doctors' index of suspicion for new cases of cancer.

Comment In a similar study that related presenting symptoms to delay in diagnosis and treatment, Macadam suggested that research into clusters of symptoms and risk factors to enable early referral of appropriate cases would be more rewarding than research into cancer cures in hospital. In an earlier study of diagnostic delay, Hodgkin pointed out the implications of the method for directing the education of both patients and doctors.

In these studies in general practice many different methods were used by individuals and by groups of doctors. Some of the studies were specific research projects and two used computer analysis, but the concepts can be applied to most practices. The people who participated found the exercise educational, many unexpectedly gaining insight into their own style of medicine. Some doctors argue that audit should not be done at all unless it can be shown to improve the outcome of care. Such solid evidence is difficult to obtain from relatively small numbers of patients, even in large group practices, without doing multi-

group studies which would destroy the local and internal nature of the audit they seek to evaluate.

Audit should probably focus upon the process of care, but on the condition that the information generated is used to bring about appropriate change and that the change is then evaluated to show that it was effective. Perhaps this is the next step for audit in general practice.

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This is the third of five articles on medical audit.
Readers may obtain specific references from the author.
No reprints will be available.

For Debate . . .

Possible role of prostaglandin E_1 in the affective disorders and in alcoholism

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Summary and conclusions

Prostaglandin (PG)E_1 may play an important part in the affective disorders, with an excess being present in mania and a deficiency in depression. Platelets from manic patients produce more PGE_1 than normal while those from depressive patients produce less. Ethyl alcohol stimulates PGE_1 production whereas lithium inhibits it. Alcoholics will tend to have raised PGE_1 concentrations while drinking, but, because precursor supplies are limited, when alcohol concentrations fall PGE_1 concentrations may fall sharply leading to depression. PGE_1 biosynthesis may be affected by nutritional factors including essential fatty acids, pyridoxine, vitamin C, and zinc. Nutritional approaches may be of value in both depression and alcoholism.

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Introduction

There is evidence to suggest that schizophrenia is associated with a deficiency of prostaglandin (PG)E_1 and with a raised dopamine:PGE_1 ratio.[1-4] Recent work on the regulation of PGE_1 biosynthesis and action by lithium, alcohol, and tricyclic antidepressants suggests that this PG may also be important in the affective disorders and in alcoholism.

There are two main naturally occurring series of PGs, the PG_1 and the PG_2 series, named after the number of double bonds in their side chains.[5-7] The PG_1 series are derived from dihomogamma-linolenic acid (DGLA) and the PG_2 series from arachidonic acid (AA). The PG_2 series have been thought to be overwhelmingly important because of the abundance of their