Using information for managing clinical services effectively

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This is the thirteenth in a series of articles dealing with issues arising as clinical practitioners increasingly take on managerial roles. The series is edited by Jenny Simpson, chief executive, British Association of Medical Managers. A book of the series is now available from the BMJ Bookshop.

Case study

The first report of the Audit Commission suggested that cases suitable for day surgery were being treated inefficiently.¹ Huddersfield featured well below the median for the percentage of those procedures that were performed as day cases. This prompted a local review.

One of the procedures was dilatation and curettage. The Audit Commission suggested that 86% of these procedures should be performed as day cases despite the fact that fewer than 50% of these were being performed as day cases in half the districts surveyed. Huddersfield was stated to have a rate of 32%. The gynaecological clinical audit group carried out an initial review using information from the computerised clinical information system of all dilatation and curettage procedures performed during the previous two years. The audit meetings are attended by all medical staff working in the department and are open to nurses, nurse managers, and medical students. They are chaired by a consultant who is also the gynaecological representative on the clinical directorate.

A total of 966 cases of dilatation and curettage had been carried out in the two years. The survey revealed that 23.5% of the patients were under the age of 35 years (fig 1).

FIG 1—Ages of patients who had dilatation and curettage. Values are percentages

The most common presenting symptom was excessive or frequent menstrual losses (38% of all cases), with irregular bleeding, intermenstrual bleeding, and infertility being other less common symptoms. None of the patients under the age of 50 had malignant disease. Even in patients presenting with postmenopausal bleeding only 12.1% had either malignant disease (adenomatous or squamous carcinoma) or potentially premalignant changes (atypical endometrial hyperplasia) (fig 2).

FIG 2—Findings on dilatation and curettage. Values are percentages

The clinicians agreed that a dilatation and curettage was essentially a diagnostic test and that its most vital role was in the detection of malignant or premalignant disease. For many of the patients, therefore, it was an unnecessary procedure. There were two alternatives: patients did not

need the test and could begin appropriate treatment for their symptoms; or the histological information could be obtained more simply from a Vabra endometrial biopsy specimen (an outpatient procedure).

Both of the alternatives would improve the quality of care by preventing patients from having to have a general anaesthetic and be admitted to hospital. Treatments of the presenting symptoms could also be started much earlier by eliminating the wait for the procedure to be performed. The numbers of patients placed on the waiting lists would be decreased, thus improving the efficiency of the department. It was agreed that greater selectivity of cases was required. Criteria were then established which the clinicians felt were safe and represented good practice. (The need for such a review has recently been suggested.²)

The following standards were set: with rare exceptions dilatation and curettage is not justified in patients under 35; dilatation and curettage should not be performed in patients under 45 unless for irregular bleeding. These were incorporated in the department handbook of guidelines given to all members of the medical staff. An additional comment advised: "Always consider the possibility of a Vabra as an outpatient procedure." It was also agreed that when a dilatation and curettage was required, the aim should be to do it as a day case.

Twelve months of data were collected and the situation was then reviewed by the gynaecological clinical audit group to see whether the standards had been met. During the year there had been 344 cases in which a dilatation and curettage was the main procedure, and all but one had been performed as day cases. The patients (n=18) under the age of 35 were now largely limited to those treated by one consultant (fig 3) and represented a considerable reduction in numbers from previous years.

FIG 3—Number of patients aged under 35, under the care of different consultants, who had dilatation and curettage after standards were revised

Of the patients under 45 years of age who had undergone a dilatation and curettage, there were 65.4% with excessive or frequent periods, a category felt not to warrant a dilatation and curettage. One patient with irregular bleeding had atypical endometrial hyperplasia but there were no other sinister histology reports.

The results confirmed the validity of the standards. However, they were not being universally applied. To encourage greater compliance another review was planned after a further 12 months. On that occasion there would be an individual case review with the responsible consultant having to justify the management of each patient that failed to conform to the standards.

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Learning points from the case study

QUALITY OF CARE

Motivation to change clinical services should be driven primarily by a desire to improve the quality of service and not merely to make financial savings. One of the main objectives in managing a clinical service effectively is to strive continually to improve the quality of care. Quality and efficiency are closely linked in that good quality care is both effective and cost efficient medicine. Getting it right first time saves the costs involved in the management of complications—extra drugs, extra investigations, extra theatre visits, readmissions, and so on. It also prevents additional suffering and prolonged incapacity in the patient.

INFORMATION EXCHANGE

Information represents a key resource to those managers or clinicians who feel that change is needed to improve the service. Establishing a rational framework for discussion of personal issues of clinical practice helps to defuse some of the natural defensiveness. An environment in which information is shared is a prerequisite for tackling issues of effective clinical practice in an atmosphere of positive cooperation.

"In many hospitals the reaction to external stimuli... is purely defensive."

The stimulus for change will come from many sources and often, as in the case study, from outside the unit. In this example the response was, perhaps, not what might have been expected. However, the results achieved a substantial improvement in the service provided and in efficiency, because the clinicians had sound information on which to base their managerial actions. The management structure gave the clinicians both the responsibility for ensuring a quality service and also the authority to implement changes. Once these were agreed, the clinicians could then monitor their effects. One of the major benefits of giving doctors the authority to manage is that they are in a unique position to bridge the gap between medical audit and resource management. Close integration of these two processes is imperative for the delivery of a high quality clinical service.

The case study clearly shows both how local ownership of data and data retrieval with analysis facilities helped clinical staff to improve the quality of their service. The information systems are relatively simple, but the ability to search the patient database and create

Audit and action

External stimulus (Audit Commission)

Internal interest and concern

Gather data (2 years' cases)

Analyse and review

Protocol agreed

One year

Gather data (1 year's cases)

Analyse and review

Planned further review

a listing of all the patients who had had a dilatation and curettage was a vital data retrieval step. A specific study could then be conducted on those case notes, using information chosen for the hypothesis under consideration.

REACTIONS

In many hospitals the reaction to external stimuli, such as Audit Commission reports, is purely defensive, and it is a mark of the more positive attitude in this hospital that the clinical staff saw the commission's report as an opportunity to consider the effectiveness of the procedures in question. Indeed, Scherkenback suggests that, faced with disincentives, people tend to react predictably in what he describes as the "cycle of fear." They work through three sequential phases: denial, rejecting data altogether; filtering the data, "gaming" the system by arguing about one specific data item, but ignoring the general thrust of the data; and finally, micro-management, unfocused interventions based on partial analysis of the data. These responses will be all too familiar to those working in hospitals. The case study hospital, however, had a well established culture of clinical appraisal of the services provided, based on routine analysis of appropriate, timely, and accurate information.

The debate and decision took place in the audit group, which is not formally part of the management framework (box). Information focused on clinical aspects of the care regimen, with an implicit acknowledgement of the resources involved. Clearly, the change in practice of the consultants would reduce pressure on beds—perhaps by the order of one or two beds over a full year. In hospitals which have devolved management responsibility to clinical management teams or directorates, this freed up resource could be used to benefit the individual service by relieving the pressure on the waiting list.

A management theorist might argue that the lack of formal linkage between the audit process and the business processes of the hospital would mean that this, and other changes in practice inspired by audit, would not be appropriately considered in creating future year business plans and negotiating contracts. The stage at which audit information becomes management information is still a matter for debate in many hospitals.

RESOLVING ISSUES

The key to resolving this still somewhat thorny issue lies in the degree of trust and cooperation between doctors and managers in the blurring of some of the distinctions between audit and management. In compact district general hospitals, overlap between the directorate and subdirectorate management groups and the audit group, through common membership, facilitates the sharing of knowledge of changes in practice. The small numbers of consultants and other staff involved also make these processes very

Organisational structure

Clinical directorate paediatrics, obstetrics and gynaecology

Chair: consultant A (paediatrician)

Members: consultant B (obstetrics and gynaecology)
community medical officer
business manager
director nurse

Subdirector obstetrics and gynaecology

Chair: consultant B

Members: consultant C
community medical officer
business manager
nurse manager

Gynaecological clinical audit group

Lead: consultant B

Support: audit assistant

All consultants and junior medical staff invited

Key point summary

- Review and analysis of retrospective, patient based data can lead to changes in clinical practice, with a consequent improvement in the quality of care
- The technical ability to obtain such data and analyse them is an important component, but will not be productive without the full involvement of clinical staff
- Care needs to be taken to ensure appropriate linkages are made between clinical peer review and management mechanisms to ensure the full benefit to the organisation
- The stage at which audit information becomes management information depends on the degree of trust and cooperation between doctors and management
- "Improvement depends on learning from information about performance"⁴

informal. The larger hospitals, on the other hand, have experienced considerable difficulty in communicating this vital information, with its implications for the contracting process.

Whatever the size of the hospital, the clinical director must regard quality of service within the directorate as one of his or her prime responsibilities. Support from consultant colleagues with management duties in the directorate should be sought because they are in an ideal position to ensure that quality issues are progressed. Furthermore, these doctors have credibility with the medical staff to act as leads for clinical audit and can carry issues through to the management groups.

In a larger or less relaxed hospital some thought needs to be given to ensuring that the changes in clinical practice which lead to better care for individual patients are also considered in aggregate, and their overall contribution to the specialty and the hospital should be considered. Information for clinical audit and information for general management are inter-related and cannot be meaningfully considered in isolation.

1 Audit Commission. *A short cut to better services: day surgery in England and Wales*. London: HMSO, 1990.

2 Coulter A, Klassen A, Mackenzie IZ, McPherson K. Diagnostic dilatation and curettage: is it used appropriately? *BMJ* 1993;306:236-9.

3 Scherkenback WW. *The Deming route to quality and productivity*. Washington, DC: George Washington University, CEE Press, 1991.

4 Berwick D. The double edge of knowledge. *J Am Med Health* 1991;266:841-2.

Rethinking Consultants

Where medical science and human behaviour meet

Jonathan Rees

This is the third article in a series on the changing role of hospital consultants

Although we may be wrong about the details, we should try to imagine what the future holds for hospital consultants. The days of the independent consultant in the same post for 30 years are over, and there will be a change from "the" consultant to a few tiers of senior staff. Patients will increasingly demand to see specialists, so more specialists will be needed. As patients and their advocates become better informed the traditional rationing of clinical care to patients in Britain, such as restricting access to specialists, cannot continue. There is a current trend for evidence based health care, but the idea that each element of medical practice can be dictated by systematic evidence based research will prove to be naïve—such research informs practice rather than dictates it. Science will continue to act as the guide to medical practice but specialists will not be turned into a set of logical operators running programs designed by health planners.

Humans tend to have two misconceptions about the future: firstly, that if we know the present we can predict what is going to happen and, secondly, that we understand the present. For any activity dependent on new knowledge, as medicine is on science, the future is uncertain simply because new knowledge always changes the rules of the game. But even if we could dream this problem away our guesses of the future will be in error because we continue to delude ourselves, outside the laboratory at least, that we understand the present: William Blake said that "every honest man is a prophet." Nevertheless, millions of years of biological engineering have forced us down the path of linking the past with the present and the future, wiring us to anticipate and prepare for what has not happened—the triumph of play over mere reflex.

So, however wrong we may be about the details of what the future holds for hospital consultants—

Calman, outreach clinics, and such like—it would be a mistake not to try to imagine. What therefore is on the horizon?

The driving force of change will remain new biomedical knowledge and our adaptation to this information. Adaptation includes, firstly, the distribution and dissemination of this knowledge to both those who supply and those who demand services and, secondly, sorting out how this knowledge is controlled, regulated, and ultimately dispensed. And the fault line will continue to be drawn ever more sharply between the value system that gave us modern pharmacology and the polymerase chain reaction and that of those who roam our hospital corridors happy to continue using Machiavelli's *The Prince* as their set text.

Challenges to consultants' knowledge and power

The days of the independent hospital consultant appointed in his or her mid-30s to hold the same post for 30 years are numbered. This should be a matter for celebration. The irony is that as this becomes so obvious people are frantically trying to put the clock back 30 years by reinventing the lone peripatetic specialist: it won't work.

When I was a medical student at the hospital where I now work hospital consultants used to have reserved car parking spaces, their name and title neatly printed on the wall. A few years later at this same teaching hospital I was discreetly taken aside at the end of a ward round and reminded that juniors should not argue with or question the consultants. I quote these anecdotes because they are two sides of the same coin, and there has since been a run on the currency. Once the confidence goes—once consultants are no longer unchallengeable—whatever went before will be seen as having been overvalued.

Knowledge, and the increasing dissemination of

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