Contemporary Themes

New technique for increasing the efficiency of self-examination in early diagnosis of breast cancer

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At present almost all breast cancers are first found by women themselves. Regular screening of the breasts of normal women by clinical and radiological examination makes earlier diagnosis possible, however, and so reduces mortality, as has been shown in the New York Health Insurance Plan by Strax and others.^{1 2} Unfortunately the costs per detected case in schemes of this kind are high because of the expense of equipment and personnel.

Most women are never screened, but those who are may have a false sense of security, because the symptoms of breast cancer may appear in the course of one month. Consequently in almost all screening programmes women are also encouraged to practice regular self-examination, and this is also encouraged through mass communication channels—television, radio, films, and pamphlets. Countries carrying out such educational activities have achieved a remarkable increase in knowledge and a change in attitudes to breast self-examination. Yet person-to-person communication is probably better than the mass media when it comes to influencing people's behaviour.

My study in Finland set out to test the quality and quantity of information given to women and to correlate it with the numbers of new cases of breast cancer detected by self-examination. Both person-to-person communication and mass communication were used in various ways in different areas of the country.

Methods

The study was carried out in co-operation with two women's organisations, *Marttaliitto* and *Finlands svenska Marthaförbund*. In all 56 000 members of the organisations aged 20-80 years enrolled in the study. As a control group all women inhabitants aged over 35 years on the Isle of Åland were given the same education programme.

Person-to-person communication was given at meetings arranged either by the women's organisations or by a public health organisation of the Isle of Åland. Instruction was given either by me, a nurse specially trained by me, or members of the women's organisations (volunteers), using special teaching kits. Mass communication was sent out through television, radio, and the press. In both education programmes the basic facts about breast cancer (risk-factors, etc) were explained and detailed instruction was given on how to examine the breasts, the signs of breast cancer (nipple changes, retraction, discharge, lump), and the signs of benign lesions. Every woman given person-to-person instruction was also given a "calendar" for personal use. This repeated the instructions about self-examination and the symptoms of breast cancer, and it gave the name of the doctor who would see women finding symptoms of breast cancer. It also included one page of personal notes on examination dates for each

month of the year and a questionnaire on educational standard, health status before the study, and opinions on the different channels of communication used. All women were told that this calendar was to be filled in once a month and returned at the end of the co-operation period, and in this way the calendar became an instrument in the person-to-person communication. Twenty-one surgeons and radiologists in different parts of the country agreed to see women who had detected symptoms themselves. If breast cancer was suspected they were immediately sent to the clinic for further examination and treatment.

Results

During the first year of self-examination 684 out of 62 000 women reported symptoms and 76 were found to have breast cancer (see table). In the second year 52 000 women continued with the scheme: 321 reported symptoms and 33 were found to have breast cancer. The incidence averages out at 1.23/1000/year—a higher rate than the ordinarily expected one of 0.75/1000/year. Inspection of the calendars that were returned showed that about 70% of the women persisted with

Results of self-examination

	No of women using calendars	No of women reporting symptoms		No of cancers
		First year	Second year	
Members of Martha organisations	56 000	634	279	102
Women of Isle of Åland	6 000	50	42	7

Incidence of cancers detected was 1.23/1000/year.

Examples of the teaching materials used.

regular self-examination. Previously only about 5% of the women had regularly examined their own breasts. The costs per detected case of breast cancer were low (less than \$500) because only 1% of the women needed to see a doctor. Fear of breast cancer was not noticed among the women concerned.

Discussion

The purpose of this study was twofold: to find out whether women could be persuaded to examine their own breasts regularly, and, if they could, to find out whether regular self-examination increased the rate of diagnosis of early breast cancer.

The results, though preliminary, show that the combination of mass health education and personal instruction seemed to convince about 70% of the women approached of the value of regular self-examination. There was no exaggerated fear of cancer, and the demands made on doctors' time were few. A

method of this kind is suitable for a whole population, whether or not the medical services are highly organised. Perhaps its most important aspect is that it can be used in areas where there are no screening facilities and probably never will be. In Finland the National Board of Health is already arranging special courses to train nurses in community health centres and in workplaces to be key people in the programme of individual instruction (see figure). The nurses give the information to women attending contraception and school clinics and for cervical screening. The specially designed calendars are used and will be returned after one year's use. The instructing nurses will then renew their message and give out new calendars.

References

- ¹ Strax, P, *Cancer*, 1971, **28**, 1563.
- ² Shapiro, S, and Strax, P, *Journal of the American Medical Association*, 1966, **195**, 111.

Medical Audit

Surgical audit: one year's experience in a teaching hospital

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Summary

For 12 months the surgical staff at Hope Hospital have operated a form of audit. The monitored information included work load, methods of treatment, complications, misdiagnoses, and deaths. The method described is suitable for any district general or teaching hospital provided adequate secretarial help is available. In addition to helping to maintain standards, an audit of this type has a positive educational role.

Introduction

In recent months there have been calls in both the medical and lay press for the results of medical treatment to be audited. It is not always clear, however, exactly what is meant by the term "audit." In the United States where such systems are practised widely, an audit may review cost-effectiveness, diagnostic effectiveness, an individual's work load and his efficiency, as well as maintenance of standards. Slee described medical audit "as the systematic evaluation of the quality of patient care as seen in medical records, including efficiency analysis and prescription for corrective action."¹ Similarly, audit for the clinician is defined by Dudley as "that process of self-assessment in qualitative and quantitative terms which enables him to say 'I have handled this patient or group of patients in an appropriate way'."²

Some members of the lay press, however, appear primarily interested in the continuous monitoring of standards of care—and the investigation of maternal and perinatal mortality has often been quoted as a model of how this is already practised. But apparently the public does not generally appreciate that many surgical units throughout the country already have regular death and complications reviews and often have done so for many years. It is, however, unusual for all the surgeons in any hospital to meet regularly to review each other's work. The complex methods of peer review and professional standards review that already exist in the United States are not a feature of medical practice in Britain.

Setting up the audit

When Hope Hospital, a busy district general hospital, was developed into a teaching hospital by the newly expanded University of Manchester Medical School, we decided to take the opportunity to establish a form of regular surgical audit. Initially, the audit has been limited to the general surgical units (six consultant surgeons working in two hospitals and servicing beds in the Salford Area). Each week the registrars of these units are asked to fill in a form giving details of the total number of admissions; the total number of operations carried out and their nature; the number of complications; the number of misdiagnoses; and the number of deaths.

The completed forms are passed to a secretary in the University department, who assembles the information and then duplicates copies for each member of the general surgical staff. One consultant surgeon surveys the audit a day in advance to decide which cases should be discussed and tells the junior staff on the units concerned. Each week a different consultant chairs the audit.

Management of the audit

The audit takes place one evening each week and lasts for exactly one hour. By and large, attendance has been good, and five of the six consultant surgeons are usually present. Although one surgeon leads the audit and the discussion of particular cases, questions may be

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