Provision of rubella immunization in general practitioner family planning services

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SUMMARY. Serological screening for rubella immunity was offered to all women attending two general practices for family planning services if there was no record of their having been either immunized or found to be sero-positive. Using these criteria, 88 (52 per cent) were eligible for screening.

Of the 73 who were screened, 10 (13 per cent) were shown to be non-immune. Analysis by age reveals that the group most likely to benefit from such a programme are those aged between 20 and 29. This study supports the feasibility of offering screening followed by rubella immunization as part of family planning services in general practice.

Introduction

RUBELLA immunization was introduced by the DHSS in 1970 for girls aged between 11 and 14 years (DHSS, 1970). However, in 1972 the DHSS expressed a reluctance to wait over a decade for benefit to accrue from such a programme, and therefore introduced measures to provide immunization for older women of child-bearing age (DHSS, 1972). The programme was further expanded in 1974 (DHSS, 1974) and again in 1976 (DHSS, 1976) to include family planning attenders. These recommendations were made at a time when most contraceptive services were provided by the Area Health Authorities. They responded poorly, however, so that only eight out of the 97 Authorities in England and Wales had taken any action by 1979 (The Spastics Society, 1979). Since then there has been a shift to family planning provision by general practitioners. For example, in Oxfordshire in 1978 more women obtained family planning advice from their own general practitioner than from an Authority clinic (Oxford AHA and Oxford FPC, personal communication).

The effectiveness of rubella immunization services depends on a number of factors. These include the completeness of patient records regarding previous serotesting or immunization, the acceptability of the screening test, the availability of laboratory testing facilities, the sero-status of the women screened and the acceptability of immunization. However, none of the published studies (Goodman, 1976; Mayon-White and Bull, 1976; Rose and Mole, 1976; Gringras *et al.*, 1977) includes an assessment of all these aspects of the service.

Aims

This pilot study of women attending two group practices for family planning services aimed to assess the proportion of women of unknown immune status, the acceptability of the serological screening test to these women, and the acceptability of treatment (immunization) to those who are sero-negative. We made no attempt to measure the effectiveness of the vaccine in terms of sero-conversion.

Method

The study was carried out in two group practices in Oxfordshire. All women attending for family planning were included, apart from those on their first postnatal visit as they would have been screened during their antenatal care.

During their consultation with the general practitioner, the subject of rubella immunity was discussed and the patient's notes were searched to see if there was any record of immunity. The women were grouped as those known to be sero-positive (from previous serological testing), those known to have been immunized (usually through the school health service or post-

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Table 1. Rubella immune-status by age (percentages in brackets).

	Under 20	20-24	25-29	30-34	35+	Total
Known sero-positive	5 *(16)*	7 *(13)*	6 *(18)*	16 *(39)*	3 *(23)*	37 *(22)*
Known to have been immunized	12 *(39)*	23 *(45)*	4 *(12)*	6 *(15)*	1 *(8)*	46 *(27)*
Sero-status unknown	14 *(45)*	22 *(42)*	24 *(70)*	19 *(46)*	9 *(69)*	88 *(51)*

natally), or those unknown—no record of previous testing or immunization. A clinical history of rubella (from either the patient or her notes) was not accepted as evidence of immunity.

Age, method of contraception and information on immune status were recorded, and those of unknown status were offered serological testing. Blood samples were taken from the women who accepted screening and were sent to the Public Health Laboratory. All participants were asked to contact the health centres for the result after two weeks; those found to be sero-negative (non-immune) were told they needed immunization and were asked to attend for it.

Women who did not contact the health centres for their results were notified by post and where necessary asked to come for immunization. A second postal reminder was sent to those who had still not come, but no further attempts were made after that.

Results

Over the study period of one month, 171 women attended for family planning services. Thirty-seven were of known sero-positive status (22 per cent), 46 were known to have been immunized (27 per cent) and 88 were of unknown status (51 per cent) (Table 1). As would be expected, those aged less than 25 were more likely to have a definite history of immunization; known sero-positive status was more common in those aged 25 and over.

The 88 women of unknown immunity were offered serological screening; 73 (84 per cent) of them accepted (Table 2). Older women were more likely to decline.

The results of the screening showed that 10 women (14 per cent) were sero-negative, but that the proportion varied with age (Table 3). This is consistent with the findings of another study (Clarke *et al.*, 1980). Of the 10 women found to be sero-negative, seven were immunized during the following three months; the other three did not re-attend.

Discussion

One of the most encouraging findings of this study was that half of the women were known by their general practitioner to be either sero-positive (37) or immunized (46). No previous study of this topic attempted to measure the extent of knowledge regarding immune status contained in general practice patient records. Gringras *et al.* (1977) found that only 14 per cent of his patients knew whether they were immune. An information system based on patient memory is therefore unlikely to be very accurate. Studies I am undertaking at the moment indicate that only 20 per cent of women attending Area Health Authority family planning clinics have information on immunity in their general practice notes.

The finding that only 39 per cent of teenagers' case-notes revealed previous immunization suggests that the school health service is under-reporting to the

Table 2. Acceptability of screening test by age (percentages in brackets).

	Under 20	20-24	25-29	30-34	35+	Total
Accepted	14 *(100)*	21 *(95)*	21 *(88)*	13 *(69)*	4 *(44)*	73 *(84)*
Refused	—	1 *(5)*	3 *(12)*	6 *(31)*	5 *(56)*	15 *(16)*

Table 3. Results of serological testing by age (percentages in brackets).

	Under 20	20-24	25-29	30-34	35+	Overall
Sero-positive	13 *(93)*	17 *(81)*	17 *(81)*	12 *(92)*	4 *(100)*	63 *(86)*
Sero-negative	1 *(7)*	4 *(19)*	4 *(19)*	1 *(8)*	—	10 *(14)*

general practitioner and that records are therefore incomplete. There may be similar problems in recording immunization in infants.

Overall, 84 per cent of women accepted the screening test, a finding which is consistent with other studies. Of the 15 women who declined, 11 were aged over 30. The main reason was that no further pregnancies were intended. The four younger women who declined gave no particular reason (beyond a dislike of venepuncture!). There were no problems in getting serological tests done by the Public Health Laboratory and all results were received within about one week.

In any rubella immunization programme, the number requiring immunization after screening is going to be small (of the order of 10 to 20 per cent of all those screened). Considering the amount of work that has to go into discovering sero-negative cases, it is important that a high proportion are finally immunized. In this study only seven out of 10 had been protected within three months of discovery. The remaining three women may be immunized at a later date, for instance at their next family planning attendance. If immunization does not take place then a programme will be ineffective when compared with other ways of delivering the service. The cost of achieving a high uptake of immunization could be considerable for general practitioners, as time and effort must be spent in setting up the programme which also has more obvious costs, such as postal reminders. The present level of pay for immunization may be too low for general practitioners to be interested in providing such a service.

Even though this is only a small pilot study it is possible to draw from it some conclusions about the feasibility of offering rubella immunization in general practice family planning. One of the main advantages of such a scheme is that the general practitioners will already know the sero-status of many of their patients (49 per cent in this study) and will be able to avoid unnecessary sero-testing.

Conclusion

Despite the availability of rubella vaccine for the past 10 years, a considerable proportion of women of childbearing age are still unprotected. It appears that the screening procedure described here is highly acceptable to them (93 per cent in women under 30 years) and that it is feasible for general practitioners to offer such a service to their patients.

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Breast cancer

A detailed examination of the nature and sequence of symptoms of women with breast cancer has shown that these have an important effect on delay. Women whose initial symptoms do not include a lump are slower in consulting a doctor about their symptoms and their doctor is more likely to delay referring them for specialist opinion. The important factor in both delay phases is the absence of a lump rather than the presence of other symptoms.

Source: MacArthur, C. & Smith, A. (1981). Delay in breast cancer and the nature of presenting symptoms. *Lancet,* **1**, 601-603.

Iatrogenic illness

We found that 36 per cent of 815 consecutive patients on a general medical service of a university hospital had an iatrogenic illness. In nine per cent of all persons admitted, the incident was considered major in that it threatened life or produced considerable disability. In two per cent of the 815 patients, the iatrogenic illness was believed to contribute to the death of the patient. Exposure to drugs was a particularly important factor in determining which patients had complications. Given the increasing number and complexity of diagnostic procedures and therapeutic agents, monitoring of untoward events is essential, and attention should be paid to educational efforts to reduce the risks of iatrogenic illness.

Source: Steel, K., Gertman, P., Crescenzi, C. *et al.* (1981). Iatrogenic illness on a general medical service at a university hospital. *New England Journal of Medicine,* **304**, 638-642.