analysis. The response to a single mailing of a questionnaire to participants (over 80%) was good: almost all participants expressed the view that participation had been valuable, had provided new information or ideas, or both, and had provided an opportunity to establish valuable new scientific contacts. The response to those questions requiring more objective replies was also encouraging. The subsequent exchange of research material among participants (60%) and the development of collaborative projects (over 30% of participants) were positive outcomes of the symposiums.

The impact of the symposiums on the scientific community was assessed by citation analysis as this technique provides a direct measure of usefulness to the research community. Analysis of sales provides limited information as most books are purchased by libraries and the numbers sold fluctuate relatively little. Our observations can also be compared with the figures published by the Institute for Scientific Information, which has a package that ranks journals and covers roughly 4500 publications. Each year of publication the Science Citation Index calculates a mean impact factor for the preceding two years—for example, for 1980 and 1981 in the 1982 index. Comparison of the impact factor for Ciba Foundation publications on the same basis would place these volumes in the top 15%—that is, at the same level as many of the better quality specialist journals. The peak time for an article to be cited in journals, however, occurs two years after publication, whereas for the foundation's publications this figure is five years and the period of frequent citation is much longer than for journals. Direct comparison of peak rates of citation improves the ranking of the foundation's publications by more than 200 places and puts them well within the top 10% of all scientific publications. This high position has been achieved despite several factors that would tend to limit the number of citations, including the fact that not all papers contain new data, techniques are rarely described in detail (these publications commonly attract the highest citation rates), and the policy of some journals excludes references to symposium volumes. The other observation worthy of comment is the impact factor of 0.596 in the year of publication (the immediacy index), which would

place the foundation's volumes 276th out of more than 4000 publications. This is a strikingly high figure considering that journals are distributed on publication to subscribers whereas books have to be promoted and sold and thus take rather longer to reach their readers. These observations indicate that symposium volumes are cited early, often, and over a substantial period.

These data clearly show that small, carefully organised multi-disciplinary meetings can make a positive contribution to scientific research and that they are of value to the participants and the scientific community at large. Performance evaluation of the processes of science is difficult and controversial. Nevertheless, both the outcome and the processes of research, including evaluation of scientific meetings, can be assessed systematically, as we have shown. It is essential that the scientific community should be prepared to take on the responsibility of measuring research performance to justify the continuing commitment of public and private funds to research.

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Communicable Diseases

An outbreak of scabies in a hospital and community

SHEENA REILLY, DOROTHY CULLEN, M G DAVIES

An outbreak of scabies occurred in a community hospital serving a population of about 20 000 in South Devon. The inpatient accommodation was separate men's and women's wards each with seven beds on the ground floor and eight further beds on the first floor. The hospital had outpatient facilities and an operating theatre. Staff were drawn from a wide geographical area and at the time of the outbreak there were 17 nurses, 13 nursing auxiliaries, and 13 other employees.

Dernford Hospital, Plymouth PL6 8DH

SHEENA REILLY, MB, MRCPATH, consultant microbiologist, Plymouth Public Health Laboratory
DOROTHY CULLEN, MFCM, DPH, district officer
M G DAVIES, MB, MRCP, consultant dermatologist

Correspondence to: Dr Sheena Reilly.

On 27 August 1984 an 81 year old single woman was admitted to the hospital after a fall at home. In the preceding four months she had been treated by her general practitioner with several courses of topical steroids for a pruritic maculopapular rash. At the time of admission the rash was confluent and intensely itchy in spite of regular doses of oral antihistamines. She had been treated for scabies in 1983.

On examination the consultant dermatologist diagnosed late onset psoriasis for which she received emulsifying ointment and parenteral methotrexate. Her symptoms persisted and she became confused and agitated. On 16 September detailed dermatological examination revealed scabies burrows on her hands, and the diagnosis was amended to crusted scabies. She was given three daily courses of gamma benzene hexachloride, which was applied to the whole body, including the scalp, because of the widespread skin lesions. The extensive rash was slow to resolve, and she was given a fourth course of gamma benzene hexachloride on 26 September.

The pruritis persisted until 9 October. She was eventually discharged to a nursing home on 22 October. When reviewed by her general practitioner on 20 December she had made a full recovery.

The outbreak

Before the diagnosis was made on 16 September the patient and several nurses and auxiliaries had had prolonged skin contact.

On 17 September her brother, who had been visiting her regularly, reported that he had had a rash for 11 days. Several nurses who had cared for the patient complained of itchy spots on their hands, wrists, and around their waists, for which a few had already consulted their general practitioners. A district nurse who had visited the patient in her home on 8 August and had lifted her on 27 August developed similar lesions on 2 September. A variety of atypical symptoms, in particular lightheadedness and general malaise, were also reported by hospital staff. The short incubation period made it doubtful that these were secondary cases of scabies. Nevertheless, the number of symptomatic staff and their families increased and the hospital was visited on the evening of 19 September for a full clinical examination of some of the affected staff and families.

There were five elderly women patients in the ward occupied by the original patient two of whom had pruritic rashes and had been treated with gamma benzene hexachloride and hydrocortisone cream. The three asymptomatic patients had also been given benzyl benzoate or gamma benzene hexachloride.

Of the 43 hospital employees, 20—eight nurses, 11 auxiliaries, and one porter—had developed pruritic rashes and 18 had already received one or more courses of either benzyl benzoate or gamma benzene hexachloride (one nurse was later excluded from analysis as she was found to have dermatitis). With the exception of the porter many had been in regular contact with the patient. Family members of six of the nurses and of seven of the auxiliaries had also been treated. Ten asymptomatic members of staff had completed one course of treatment.

Examination

Nineteen symptomatic members of staff and many of their families underwent a full dermatological history and examination on 19 September. Symptomatic family members included five husbands, six children, two grandchildren, and one boyfriend. The infected children, including grandchildren, ranged in age from 3 to

21 years. Close examination showed fresh scabies burrows in spite of one or more correctly applied courses of treatment in some of them. The sites most frequently affected were fingers, wrists, arms, and waists, and the external genitalia of boys.

Further management

In view of the apparent failure to eradicate the infestation, a further course of gamma benzene hexachloride was given to all symptomatic staff and their families, to any asymptomatic close contacts, and to those members of staff who were unable to attend the meeting on 19 September. In all, 120 courses were prescribed. Those patients who had developed eczematous reactions after repeated self administration of antiscabies treatment were prescribed hydrocortisone cream.

The male patients in the hospital remained symptom free but were each given a single course of treatment. All 24 patients discharged from the hospital since the date of admission of the index patient (27 August), were notified by letter and asked to attend their own doctors if they were symptomatic. The hospital was closed to new admissions from 16 to 26 September, by which time effective treatment of symptomatic patients had been completed and most contacts had been identified. A 76 year old woman who had been discharged on 14 September developed a rash on 11 September for which she received two courses of gamma benzene hexachloride. The outpatient and casualty departments remained open throughout.

Comment

This outbreak illustrates the highly infectious nature of crusted scabies. The delay in making the diagnosis allowed widespread unprotected physical contact with the elderly lady, which undoubtedly contributed to the extent of the outbreak. Unexpected features were the short incubation period and apparent failure to respond to initial courses of treatment. This may have been due to incomplete application of cream or to reinfection in the home. Effective control of the outbreak required the full cooperation of local general practitioners, teachers, and nursing staff.

We thank the following for all their assistance in the investigations: the nursing staff at South Hams Hospital, the general practitioners in Kingsbridge, Modbury, Chillington, Salcombe, and Dartmouth, and the headteachers at Kingsbridge Upper and Lower Schools, Stoke Fleming Primary School, Charlton Primary School, and Dartmouth School and Community College.

Is "super glue" being used in wound closure in the United Kingdom? A Dutch colleague tells me they use a glue regularly for small skin lacerations, especially in children, where the trauma of suturing may leave a psychological scar.

There has been considerable interest in the use of cyanocrylates as tissue adhesives for the past 25 years. These are monomers that polymerise rapidly in the presence of minute amounts of water to form a strong adhesive. The technical problem is that these substances set up an intense inflammatory reaction around the fragments of adhesive material.¹ Moreover, the polymer, when used for bonding skin wounds, trickles down between the cut surfaces and acts as a barrier between the growing edges of the wound. This barrier prevents wound apposition and actually delays healing. Furthermore, tissue adhesives provide an environment conducive to the development of wound infection.² The psychological trauma of stitching wounds in young children should, indeed, be avoided if possible and this is usually easily achieved by using adhesive tapes such as Steristrips. The superficial laceration is simply cleaned with antiseptic, dried, and taped. This is almost painless and followed by excellent healing and cosmesis.—HAROLD ELLIS, professor of surgery, London.

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If, as has been stated, cervical cancer is almost non-existent in Jewish women is this an argument for circumcision in men? Or are there other factors in the Jewish way of life to be taken into consideration?

Although the incidence of cervical cancer among Jewish women appears to be low, it is by no means clear that male circumcision plays a part in this. The major risk factors for cervical cancer appear to be age at first intercourse, number of sexual partners, social class, and smoking. The concept of the high risk man is now finding acceptance—the risk factors for the man being similar to those of the woman. Orthodox Jewish practice with regard to frequency of intercourse and number of sexual partners may therefore play an important part in protecting these women from the disease. Indeed, the increasing adoption of Western sexual standards has already given rise to concern that cervical cancer may increase in Israel.¹ Preliminary reports of the prevalence of abnormal cervical smears in screening programmes in that country support this fear.² Until epidemiological studies, controlled for circumcision, are performed, insufficient information is available on which to base a statement that the risk of cervical cancer in women justifies male circumcision.—B G WARD, ICRF clinical fellow in gynaecological oncology, London.

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