PRACTICE OBSERVED

Practice Research

Factors influencing rubella immunity in women

R A CLUBB, G A W DOVE, L E MACINNES, S H IND

The incidence of congenital rubella has not fallen recently.[1] The rubella epidemic of 1978 took its toll in an increased number of therapeutic and spontaneous abortions and congenital anomalies (National Congenital Rubella Surveillance Programme). Few would favour complacency in considering the effectiveness of rubella immunisation programmes, whether those adopted here or in the United States. We realised that a programme of immunising women of child-bearing age against rubella could conveniently be combined with examining their immune state. Continual monitoring of immune state is important, particularly for indicating how beneficial the policy of immunisation of secondary school children is in Britain.

Since most family planning clinics fail to screen for rubella immunity[2] and since screening at antenatal clinics is of limited use because 40% of infants damaged by rubella are firstborns,[3] the logical place to screen for rubella immunity appears to be in general practice. We thought that our practice was particularly suitable for such a survey because (1) it is in a "bed-sitterland" area of West London and about 30% of our patients fall into the somewhat arbitrarily selected group of women aged 17 to 30 years; and (2) since all patients are registered on a computer through a telephone linkage to the Exeter Community Health Services Computer Project, the information collected during a survey can be stored as a data base for epidemiological analysis.

Thus for 11 months we have studied rubella immunity in women in our practice and immunised those who were seronegative. The objectives of our study were to find out whether it is feasible to provide such a service in a normal general practice, to establish the prevalence of rubella immunity in women of child-bearing age, and to analyse the correlation, if any, between immunity and age, parity, recollection of previous infection, and recollection of previous immunisation. We also hoped to show whether there was any difference in the prevalence of immunity in those born after 1956, who would thus have become eligible for routine immunisation in school.

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Study population and method

Starting in November 1979 all women aged 17 to 30 inclusive who attended for general or family planning consultation were asked questions from a "rubella immunity form" (figure) about their recollection of previous infection and immunisation, their age and parity (with brief details of confinements, if any), and their awareness of the risks of rubella infection during pregnancy. During the same consultation 10 ml of clotted blood were collected from each patient with her permission and submitted to the microbiology department, Charing Cross Hospital for estimation of haemagglutination inhibition (HAI). We kept a record of those who were unwilling to co-operate, and the remainder were asked to return to the surgery or telephone three weeks later to be told their result. We sent a recall letter two months later to seronegative patients who had still not attended for immunisation. Patients were regarded as seronegative if their HAI titres were 1:10 or less, and they were offered immunisation with Almevax (RA 27/3) free of charge and given precautions regarding pregnancy or impending pregnancy. Finally the patients' files were clearly marked to indicate their rubella immune state.

Results

We studied 431 women patients, aged 17 to 30 years. Numbers were evenly spread throughout this age range. One hundred and thirteen patients (26%) recalled having been immunised (the remainder answering either "no" or "don't know"), while 164 (38%) recalled having had a rubella infection. Seventy patients were unaware of the risks of rubella during pregnancy. Of the 431 women, 371 (86%) were seropositive (HAI > 10). Of the 113 who recalled being immunised, 100 (88·5%) were seropositive compared with 271 (85%) of the 318 with no recall. Of the 164 who recalled having an infection, 150 (91·5%) were seropositive compared with 221 (83%) of the 267 with no recall. Only 67 (15·5%) of the women had completed confinements: two of these were seronegative. Ninety (21%) admitted to having had either spontaneous or therapeutic abortions: 11 of these women were seronegative. When the women were grouped according to year of birth there was no appreciable age-related difference in immunity (table).

Ten patients did not enter the study: five claimed to have been recently screened (two by general practitioners; one in a family planning clinic; one (a nurse) in hospital; one in France). The remainder were either wary of venepuncture or insisted that they had no interest in becoming pregnant.

Discussion

We found that the amount of increased work and the small cost required of the project were by no means prohibitive, and we were fortunate in having the services of both the microbiology department of the local hospital and a computer, which made analysis rapid and easy. Most patients were aware to some degree at least of the dangers of contracting rubella during pregnancy (only 70 of the 431 patients had no knowledge of this when questioned).

Only 10 patients refused to co-operate in the study for reasons mentioned above, and this small number is similar to the number of refusals that Rose and Mole reported four years ago (1 in 45).[4] This good initial compliance can no doubt be attributed to completing the questionnaire and performing venepuncture at the same visit. Unfortunately, but perhaps not surprisingly, the response of the patients to learn their immune state by telephoning or visiting the surgery was not so good: of the 60 seronegative patients, only 19 attended spontaneously for immunisation. The number of susceptible patients not immunised, however, was further reduced by 18 by sending a recall letter to each defaulter, but it is obvious that the problem of producing a seropositive population, in our area at least, does not end with the identification of immune state. We shall give careful consideration to how much effort and money can be devoted to encourage reluctant women to attend for immunisation.

The overall prevalence of rubella immunity was 86%, compared to 70%, 80%, and 92% in other studies.[1 3 5] This is an unsatisfactory but not unexpected figure and only stresses the importance of the Department of Health's recommendation to screen and immunise women of child-bearing age, since the routine immunisation of schoolgirls falls short of producing a protected population. Because of the difficulty in accurately diagnosing clinical rubella, we did not anticipate that recalling a previous infection with rubella would have an important bearing on immunity. Although previous infection should not be regarded as a guide to immunity, it is notable that the prevalence of seronegative women among those who recalled having had an infection (8·5%) was one-half that among those who could not recall having had an infection (17%).

It might be thought that the correlation between immunity and recollecting previous immunisation would be greater than the correlation with recalled infection: in fact the difference in the prevalence of seronegative women between those recalling immunisation (11·5%) and those not (15%) was appreciably less—that is, 22% of those found to be susceptible to rubella recalled being immunised, while 27% of those found to be immune recalled being immunised. The fact that the prevalence of immunity was almost as high in women who did not recall being immunised is no doubt largely due to acquiring natural immunity. But it may in part be due to a false recollection of immunisation, which is suggested by the fact that only 26% recalled being immunised. This falls far short of figures that vary regionally from 61% to 81% for 16-year-old girls in a nationwide survey reported by Peckham, Marshall, and Dudgeon in 1977.[3] In our study population—based in a cosmopolitan area of London, with rapid patient turnover and a large proportion of immigrants—the number that would be expected to have truly been immunised would fall short of the national expectation.

We did not attempt to establish the most accurate previous immunisation data by searching school clinic records, etc, because we regarded the patient's (and perhaps the doctor's) conception or misconception of her likely immune state as one of the important issues to be examined. With regard to this, 11·5% of the 113 women who recalled having been immunised and who would reasonably presume to be (and we presumed to be) immune are in fact seronegative and at risk.

To ascertain how effective the programme of vaccinating schoolgirls is, we analysed the results according to date of birth (table). Unlike Clarke and colleagues,[7] who studied a much larger population, we were unable to show any increase in prevalence of immunity in women born after 1956. Their population, however, was made up of university students and voluntary blood donors, who may represent selected groups of the population in terms of vaccine acceptance.[7] In contrast, the low (recalled) acceptance rate of 26% in our study emphasises that we were dealing with a different, cosmopolitan population.

The characteristics of our practice community are further illustrated by the obstetric histories. Of the 431 women, 67 were mothers and 90 had had spontaneous or therapeutic abortions. Because of the low parity rate and hence the small number available for study no meaningful conclusions can be drawn about the effect of parity on immunity. Only two of 67 mothers were seronegative, however, and it is tempting to conclude that this proportionately small number (3%) hints at the anticipated benefits of antenatal rubella screening and subsequent vaccination.

Number of women aged 17 to 30 who were seropositive or seronegative to rubella

Year of birth	No Seropositive	No Seronegative	% Positive
1948	1	2	33
1949	12	1	92
1951	21	6	78
1952	25	3	89
1953	33	7	83
1954	36	4	90
1955	38	8	83
1956	36	6	86
1957	27	4	87
1958	33	6	85
1959	27	5	84
1960	28	2	93
1961	9	1	82
1962	9	0	100
1963	4	1	80

Conclusions

Over 11 months 431 women patients aged 17 to 30 in our West London practice were serologically tested for rubella immunity. At the same time they were asked whether they had been infected with German measles—38% said yes; whether they had been vaccinated—26% said yes; and whether they knew of the risks associated with German measles in pregnancy—84% said yes.

The overall prevalence of immunity (HAI > 10) was 86%. Among those who recalled being vaccinated it was 88·5%, and among those who had not it was 85%. Of those who recalled having had rubella, 91·5% were immune compared to 83% who had not had rubella. There was no difference in immunity in relation to age, and only two of 67 parous women were seronegative. Among our patients of child-bearing age a rubella "immunity gap" of 14% was confirmed. The rate of recalled vaccine uptake in our cosmopolitan practice community—not perhaps nationally representative but not an unusual one, either—was discouragingly low.

The results were stored and analysed by means of a computer link-up between the practice and the Exeter Community Health Services Computer Project.

We thank the following people for their help with this study: Mrs P Hind, SRN, Mrs O Salmon, receptionist, and Mrs V Johnson, secretary of our practice; Dr J Coleman and staff, Microbiology Unit, Charing Cross Hospital; the Exeter Community Health Services Computer Project; and Dr Catherine Peckham, Community Health Department, Charing Cross Hospital.

References

1 Anonymous. Rubella vaccination. *Lancet* 1979;i:989.
2 Peckham CS. Congenital rubella surveillance. *J R Coll Physicians Lond* 1978;13:250-5.
3 Rose AJ, Mole RF. Rubella immunisation and contraception—a case for re-examining the policy of the Department of Health and Social Security. *J R Coll Gen Pract* 1976;26:817-21.
4 Goodmen M. Rubella in general practice. *Update* 1976;12:527-33.
5 Grilagos M, Reisler R, Cassley J, Helliwell W, Bowker CH. Vaccination of rubella-susceptible women during oral contraceptive care in general practice. *Br Med J* 1977;ii:245-6.
6 Peckham CS, Marshall WC, Dudgeon JA. Rubella vaccination of schoolgirls: factors affecting vaccine uptake. *Br Med J* 1977;i:760-1.
7 Clarke M, Boustred J, Schild GS, Seagroatt V. Effect of rubella vaccination programme on serologic status of young adults in United Kingdom. *Lancet* 1979;i:1224-6.
8 Clarke M, Stitt J, Seagroatt V, *et al.* Rubella antibody status of young adults in UK. *Lancet* 1980;i:537.

Patient No ..... (computer)

RUBELLA IMMUNITY FORM

NAME ..... ADDRESS ..... DATE of BIRTH .....

Q Have you ever had German measles? * Yes Date (year) * No * Don't know

Q Have you ever been immunised against German measles? * Yes Date Where (school, GP, clinic, etc) * No * Don't know

Obstetric history

Para ☐ + ☐

Confinements	Date	Hospital	Tick if serology performed

Q Are you aware of any undesirable effects of catching German measles? * Yes Where learnt? (parents, school, GP, TV) * No

Blood sent for serology ☐ tick Date .....

Result: sero positive [ ] titre
negative [ ] titre

* delete as appropriate

Questionnaire that was completed for each patient at the consultation.

Beyond the Surgery

Doctor in a cave

DONALD THOMSON

Caving is not really dangerous, at least compared with climbing or playing rugby or sitting at home worrying about the practice. Many good men have died on the squash court, and even jogging has had its fatalities. I suppose, however, one must admit that sometimes something does go wrong, and when an accident occurs in a cave there are problems evacuating the victim. Mendip is a small caving area, where the caves are constricted and complex, and our cave rescue organisation has been active for the past 35 years.

Caves were first described on Mendip in the eighteenth century. The first victim was, it seems, one Plumley, who was lowered by workmen into a pit at Burrington. There something frightened him and in the ensuing panic he was pulled up into a fissure where his back was broken. Swildon's Hole was first entered in 1901 and is still being extended. The Forty Foot Pot was passed in 1914 and the next vertical feature, the Twenty Foot, about 1920. The Sump was reached soon afterwards; this is a pool into which the cave stream vanishes. It was not passed until 1936 when, on October 4th in a diving suit made from his father's fishing waders with a waterproof jerkin and a football inflator, Jack Shepperd succeeded in following the stream to the passage beyond. It was a desperate attempt and only used after a charge of 11 pounds of gelignite fired by an 'alarm' clock had failed to remove the overlying rock. Over the hill a mile away Eastwater Swallet had been entered in 1902 and most of it explored quickly. It is quite different in character from Swildon's Hole. It starts with a jumble of boulders, many of them several cubic yards in size, and is about 60 feet (18 m) from top to bottom where a canyon passage and a maze of small interconnecting passages lead to the bottom of the cave. A choice of routes takes one down either two pitches or one long climb and a 40 foot (12 m) pitch, but a curious characteristic of Eastwater is that the onward route is not at the bottom of each pitch; one has to leave the ladder and traverse. This has led to more than one accident and some very near misses.

The discoveries of great caves of Mendip followed—Swildon's Hole and Eastwater, GB Cave in 1939, the greater part of Stoke Lane 1947, and St Cuthbert's Swallet in 1953. More caves have provided more traps for the unwary. In the early part of the century transport was by bicycle, with donkey carts for major expeditions. Standard caving clothes were Norfolk jackets, lighting was by candles, and ladders were constructed of rope and wood. The advent of the motor-car, the electron ladder, Nicad electric cells, neoprene wet suits, and man-made fibre ropes have made long, wet expeditions very much easier. Accidents now tend to occur further in, and we have had to become less amateur.

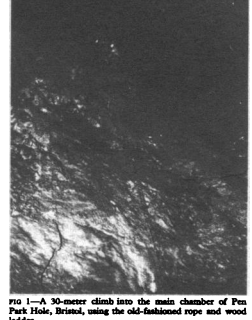

FIG 1—A 30-meter climb into the main chamber of Pen Park Hole, Bristol, using the old-fashioned rope and wood ladder.

Mendip Rescue Organisation

My contact with the Mendip Rescue Organisation (MRO) began about 1947 when it became evident that with more leisure and easier access to caves more people would be caving and therefore accidents would be more likely. It continued through medical school at Bristol but was interfered with by a spell in the services. In 1964 I succeeded to a rural practice in north Somerset and soon became honorary medical officer to the caving community and medical warden to the Mendip Rescue Organisation. Willingness to help with cave rescue was a trump card at the interview with the executive council, and I received much help from Bertie Crook, then a general practitioner in Paulton, who had been shouldering most of the responsibility for the medical aspects of the rescues. Bertie was one of the first to help establish the rescue service and became its first chairman. Rod Pearce in Trowbridge, Stanley Cannicott in Wells, and Allan Rogers in Bristol were also extensively involved at different times. Rod Pearce even had a cave named after him, and a girl with a fractured femur was rescued from it.

In the 1940s we had to decide what sort of organisation we needed. A list of permanent wardens was made, consisting of local people who knew the caves well and who were known to be able to mobilise groups of other cavers quickly in an emergency. A few specialist wardens, medics, and cave divers were also appointed. The list had no fixed number of people, and people were appointed when it was thought that they could contribute and wished to do so. Any changes were to be made at an annual general meeting when the chairmanship would be reviewed and a treasurer and auditor appointed. The whole has been described as a self-perpetuating undemocratic ad hoc committee of geristric cavers. This sounds harsh but has some truth in it. Continuity is assured and too much argument avoided; the most active and available cavers are most involved; and years of experience lead to useful knowledge of the caves and to familiarity with patterns of accidents. Our most strident critics are usually silenced by inviting them to become wardens.

Rescue work

All cave rescues are initiated at the request of the police. They are ultimately responsible to the Home Office for coping with such accidents, and we can use their radio links and are, while working as their agents, covered by insurance. The list of wardens is therefore given to the police and updated at least annually. Outside the caves are notices advising the site of the nearest telephone box and that one should dial 999 and ask for "cave rescue." These calls are routed through the main police station and from here the call-out is initiated. The police telephone the people on the warden's list in order until they find one at home. They rarely need to go beyond the first two, and a cascade system then operates. One warden takes charge on the surface, co-ordinates with the police, and logs people and equipment in and out of the cave. He also makes ambulance arrangements and calls back-up teams if these are needed.

A telephone line is laid down the cave, and we now have our own radio link from cave entrance to surface base and with the rescue stores. The call sign is "Hunters," which may have something to do with a well-known hostelry in the middle of Mendip. The warden on the surface needs to do some disciplining; a hundred people may turn up at a rescue and this help has to be deployed to maximal advantage. Enthusiasm without experience can be dangerous.

EQUIPMENT

The warden in charge on the surface arranges for equipment to be brought from the rescue store. This is centrally placed on Mendip and is opened by a combination lock so that access can be arranged by radio or telephone. It contains stretchers, carrying sheets, ropes, ladder, spare lamps, and food. It also contains some medical equipment, such as plaster-of-Paris but no morphine, which might encourage burglary; a little pentazocine and diazepam is kept there. MRO doctors prefer to equip themselves with emergency laryngoscopes, other apparatus, and favourite drugs. Recently we have acquired more specialist apparatus. A fibreglass back splint was one of the first, then the Reviva hot air machine for hypothermia, a powerful Black Knight hydraulic rock-lifting machine, and a purpose-built stretcher designed as a degree project by David Mager are acquisitions of the past two or three years. Simple items like hot water bottles, spare blankets, and calor gas cookers are also included. All this needs checking and maintenance: in the medical equipment intravenous fluids go out of date; climbing rope has a shelf life; and lamps need servicing.

Since acquiring this equipment we have felt more able to deal with the emergencies. We started with no money and little equipment. Waterproof clothing was too heavy to use in caves, rope was made of hemp not nylon, and hypothermia was not recognised as a dangerous condition and anyway effective ways of treating it had to wait for apparatus like the Reviva. A serious spinal injury showed us that our carrying sheet and Neil Robertson stretcher simply did not give the support necessary, and discussion about fallen boulders persuaded us to buy the hydraulic jack. Donations from the MRO personnel, other cavers, a little from victims, and most from a collecting box in the outdoor equipment shop in Wells provided funds. Ideas

Leigh-on-Mendip, Bath
DONALD THOMSON, MB, CHB, general practitioner

have been exchanged with rescue services in other caving areas, especially Devon, Yorkshire, and Derbyshire. The Derbyshire people had perfected rescues from long mine tunnels with vertical pitches of two or three hundred feet. They were horrified by our carrying sheet and donated to us a rigid stretcher which would not fit into many of our caves. The radio link is perhaps our most ambitious acquisition, and its use in the sleet on Mendip in November last year alone justified its purchase.

Some memorable rescues

A few rescues seem to stand out in one's memory. We wondered for years how we would cope if we had to bring a victim back through the sump. When it happened—a broken leg some 300 feet (91·5 m) beyond the sump—it was very easy. We have been expecting to have to manage medical emergencies that occur underground. Some years ago a diver on a rescue in the United States had a myocardial infarction. A few months ago we had a similar episode on Mendip. It was only 200 feet (61 m) inside GB cave. An apparently fit 33-year-old man on his first caving trip complained of chest pain and collapsed. He was quite dead when I reached him. We had wondered how young and inexperienced people would cope emotionally with the recovery of a corpse, but again our fears were much worse than the reality and his colleagues, with minimal experience, had already tried mouth-to-mouth breathing and external cardiac massage.

Another incident occurred in South Wales on a pleasure trip through Ogof Flynnon Ddu. We encountered a distraught caver who said there had been an accident and did we know where help could be obtained. Our party had three of the Mendip rescue wardens and one doctor but no rescue equipment. The patient was a girl who had fallen off a ladder and suffered a compression fracture of a dorsal vertebra; an air of confidence seemed to work wonders, and when a stretcher was brought down she was quickly taken to the surface by the South Wales rescue team. There was also a large school teacher who at the last minute decided to help his son's friends explore the tighter parts of Swildon's and became firmly wedged, head down, in a canyon passage. Nobody could get anything under him and by the time MRO arrived he had long since ceased to care. Attempts to winch him out backwards produced the awed comment that his joints were going like fire crackers, but options were few by this stage. Somehow he was removed, and the next we heard was that he had approached his own doctor to seek advice about suing the MRO for a minor degree of paralysis in one arm.

On another occasion we were called when a serviceman had fallen in Swildon's and was thought to have broken a leg. At the entrance we were told it had been splinted and he would soon be out. Having nothing better to do that afternoon I went down and was surprised to find the splint consisted of a 3" plaster bandage around the fracture site. A boy sailor in Goatchurch had been sent into the tunnel at the bottom because it was thought to be character building. There he became unconscious. He smelled ketotic, and I thought he might well be an unrecognised diabetic but he was pulled out backwards and sat up and he went out under his own steam. His blood sugar was estimated in the casualty department in Bristol and was normal.

Fred's boot

From time to time we see people who go down ladders or through sumps and refuse to return. In dealing with these the technique known as "Fred's boot" has been used with success. Fred Davies is a caver of great experience and he can be relied upon to assess correctly the victim who can help himself and will not. Fred's boot is thought to be endowed with magical properties and has worked well on several occasions. Where real injury has occurred, confidence and sympathy plus some hot soup and glucose tablets are much more useful.

Some rescues have not been without an element of farce. Two Army officers let it be known they were going caving on the Mendips and went absent without leave. Every cave on Mendip was searched before they were discovered. A full call-out was arranged to search Stoke Lane Swallet when a car containing caving clothes was found in a lay-by near the cave. The missing man was found by police painting the inside of a nearby caving headquarters. A group in Swildon's Hole mistook the route from a high level passage and abseiled down into a blind pot, pulling the rope down after them. Fred was the first to reach

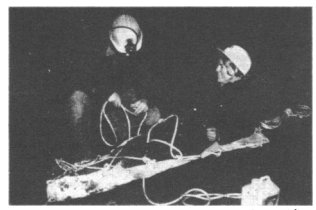

FIG 2—Lacing up the victim in the carrying sheet on a practice rescue from Goatchurch Cavern.

them and refused to throw them another rope until they had admitted their stupidity and apologised for the trouble they had caused.

Cave rescue workers have considered their attitude towards accident prevention. While we are prepared to pass comment when people are stupid, when they use dangerous tackle or unsafe belays, we think it would be wrong to overprotect. In Mossdale in Yorkshire some years ago the cave entrance was closed after six cavers were drowned in a sudden flood. It has been suggested that all that was done was to close the safest exit.

Caving offers an escape from too much of society's control, and it would be a pity to restrict this.

Of Anger.

THE paffion of *anger* ruffles the mind, diforts the countenance, hurries on the circulation of the blood, and diforders the whole vital and animal funftions. It often occafions fevers, and other acute difeafes; and fometimes even fudden death. This paffion is peculiarly hurtful to the delicate, and thofe of weak nerves. I have known fuch perfons frequently lofe their lives by a violent fit of anger, and would advife them to guard againft the excefs of this paffion with the utmoft care.

IT is not indeed always in our power to prevent being angry; but we may furely avoid harbouring refentment in our breaft. Refentment preys upon the mind, and occafions the moft obftinate chronical diforders, which gradually wafte the conftitution. Nothing fhews true greatnefs of mind more than to forgive injuries: it promotes the peace of fociety, and greatly conduces to our own eafe, health, and felicity.

SUCH as value health fhould avoid violent gufts of anger, as they would the moft deadly poifon. Neither ought they to indulge refentment, but to endeavour at all times to keep their minds calm and ferene. Nothing tends fo much to the health of the body as a conftant tranquillity of mind.

(Buchan's *Domestic Medicine*, 1786.)

Pitfalls in Practice

Finding a practice

I: The adverts

JOHN OLDROYD

This article is based on an audiovisual presentation made for vocational trainees in general practice by the MSD Foundation.

Dr Ian Keen was ready to put all his expensive training to use in the service of the sick. The time had come for him to apply for a position on a family practitioner committee (FPC) list. He wanted to use all the skills that he had learned, polished, and honed during his life since O levels, culminating in his soon-to-be-completed vocational training. If you are in the same position you'll realise that good partners are as difficult to find in general practice as in other walks of life.

Dr Keen's sense of vocation was tempered by the increased responsibilities of his recent marriage and the thoughts of children and their needs. He was therefore looking for the life-style that his mother had always wanted for him, and to that end he perused the partnership advertisements in the *BMJ* with questing enthusiasm. The range of possibilities seemed wide, and many of the advertisements offered promising prospects.

CHRISTIAN DOCTOR with sense of humour wanted to join 45-year-old single-handed principal with full list in northern industrial town. Early parity giving a gross of £13 000. Outside work encouraged; there is scope for development of progressive practice ideas. Dr Ramsbottom, The Old Unitarian Chapel, Station Road, Illthwaite.

SALARIED PARTNER required by single-handed male principal with above-average list in urban Home Counties north of London. Would suit a lady doctor with domestic commitments who is interested in family planning and maternity work. Remuneration will be generous and determined after resolving the duties to be performed. Box 12345 BMJ.

DO YOU ENJOY the country life? Join us in rural Norland. Early parity, full dispensing, ample opportunity for increasing list size. Opportunity to use your clinical training to the full. Initial share worth £10 000. Apply Drs Grouse & Partridge, Amblethorpe, Norlandshire.

YOUR FAMILY will love living on the south coast of England with its balmy climate. Our two-man partnership has a vacancy for a third partner. The practice has some interesting outside appointments. Salaried partnership £5000 for a period of mutual assessment followed by sharing partnership by agreement. Interested? Then write to Matelot and Smooth, Blue Peter Surgery, Marine Parade, Brighthaven.

AN UNUSUAL type of doctor required by a progressive, forward-looking GP who still considers that family doctoring requires a family doctor and not a primary health care team. Requirements simple and in the following order; compassion, common sense, interest in medicine as a profession rather than as a job, average intelligence (above average not debarred). No overtime payments but salary will be commensurate with qualifications, experience, and personality. Have all the usual: modern purpose-designed premises, open hospital and lab access, nurse and health visitor attachment, full secretarial staff, hospital and outside appointments. Admit to bias against modules, interference over administration and 9-5 mentality. The post offered is as a third partner in long-established family practice. Preference given to graduates with an interest in old-fashioned general practice, in modern context. Vocational training not essential; this can be given in post (senior partner GP trainer). Anyone interested apply with full details. Interviews in Yorkshire, and do not be deceived, I will interview you, not you me. Reply Senior Partner, Waterloo House, Clertheckmondasedge, W Yorks.

THIRD PARTNER to join two established principals in Elysium on Thames. The practice is conducted from owned premises in this market town which has excellent ranges of housing and good schools. Ancillary staff employed, attached health visitor and district nurse. Salary £8000 at start with review. Curriculum vitae please to Drs Sharpe & Idle, Regency House, The Market Cross, Elysium on Thames.

Secretariat for London Local Medical Committees, Tavistock House North, London WC1H 8ET
JOHN OLDROYD, MB, FRCGP, secretary

While many advertisements are exactly what they seem, there are some where it pays to try to read between the lines. What do the above advertisements really offer Ian?

Christian doctor with sense of humour wanted to join 45-year-old single-handed principal with full . . .

Ramsbottom has soldiered in the trenches for as long as he can and is exhausted. He is aware he is behind the times in practice developments—appointment systems, attached staff, and the primary care team—but he is willing to take a substantial cut in income to get help on his own terms, even if it means fighting for a clinical assistantship. It will, however, have to be on his own terms, which means no immigrants and someone who will be a social friend and will share his cynical appreciation of his lot.

Salaried partner required by single-handed male principal with above-average list in urban home counties . . .

"I need someone to give cover for me when I go off on holiday. You will have to do only a basic 20 hours a week in order to get maximum allowances from the FPC. You will take over all the family planning, smears, and maternity work to increase the practice income. The potential is enormous with all the neurotic, lonely, bored commuter housewives."

Do you enjoy country life? Join us in rural Norland. Early parity, full dispensing . . .

"It is pure hell here in winter. The calls are impossible, the hospitals inaccessible. We have to cope. As to deputising services—forget 'em. You will have to go out to road accidents on the motorway. All those isolated villages are crying out for a doctor. Money won't be a problem—time off and holidays will."

Your family will love living on the south coast of England with its balmy climate. Our two-man . . .

"We need someone else to look after all the temporary residents in this geriatric dustbin next year while the present partners are (*a*) cruising as a medical officer on the luxury liners and (*b*) giving a lecture on wine appreciation to tourists in the chateaux de la Loire."

An unusual type of doctor required by a progressive, forward-looking GP who still considers that family doctoring requires a family doctor . . .

"I am a strong personality—can the partnership exist with the two of us?"

Third partner to join two established principals in Elysium on Thames. The practice is conducted from . . .

On reading this, Ian decided he need look no further. This was it. He spent a happy hour or two composing a curriculum vitae that he thought would put his own qualities in the best light and impress the two partners.

This is the first of four articles on finding a practice.

Emergencies in the Home

The psychiatrically violent patient

P W SHORT

When considering the violent and psychiatric patient it is important to remember that the terms "violent" and "psychiatric" are neither interchangeable nor complementary and that they may be applied separately or together. Thus not all violent patients will be suffering from psychiatric illness, nor will all psychiatric patients be violent.

Diagnosis

Having received an urgent request to visit a violent patient, one of the first decisions to be made is whether the cause of the patient's problem is organic or psychiatric. (The general practitioner will usually have the advantage of knowing the patient's medical history, and this will be of great help when making a diagnosis.)

ORGANIC CAUSES INCLUDE:

Metabolic—(1) Ingestion of drugs or alcohol (most of us will have met with the violent drunk or patient suffering from delirium tremens). (2) Hypoglycaemia. Hypoglycaemic patients may be quite violent. (Peter Hall[1] mentions this as being infrequent, but, having an irresponsible teenage diabetic who reacts in this way in my own practice, it is not so rare an experience for me!)

Infective—A typical example of an infection that may produce a violent non-cooperative patient is meningitis.

Organic brain damage—(1) Post-brain injury with reduction of inhibitory centres. (2) Senile dementia—patients may be both violent and uninhibited.

Post-epileptic homicidal episodes

Beckington, Bath
P W SHORT, MB, CHB, general practitioner

PSYCHIATRIC CAUSES INCLUDE:

Paranoid state—Schizophrenic patients, for example, may sometimes progress to violent behaviour as a result of their delusions of persecution.

Psychopathics—By definition these patients are both aggressive and violent and this should be borne well in mind when attending them.

Depressive states—Depression sometimes results in violence, which may be directed outwardly, inwardly, or both (for example, attempting to kill one's child before committing suicide).

Manic depression—Patients in the manic phase of this illness may become violent and may be very difficult to control even when given large doses of tranquillisers parenterally.

Hysteria—May produce violent behaviour, which again may be difficult to control even with high doses of drugs given parenterally.

OTHER CAUSES INCLUDE:

Bouts of plain bad temper or rage. Political acts of violence by "normal" people—although these acts seem to be all too common, they do not often come within the province of general practice.

Management

GENERAL APPROACH

Great care must be exercised when confronting a violent patient who may be very dangerous (an injured or dead doctor only compounds the problem). The doctor must not be seen to be frightened by the patient even if he is. He must be calm and unhurried in his approach. He needs to be willing to talk to and listen to the patient, which may help the patient to calm down—a fact which has been amply demonstrated in various "sieges" around Europe.

DRUGS

When the general approach fails the use of drugs will probably be required, and it is necessary to seize the chance to give them as soon as the opportunity presents itself. (Do not forget that to give drugs parenterally without the consent of the patient is an act of assault, so be safe and commit the patient first.) The following drugs will cover most eventualities.

Diazepam (Valium) 20-40 mg intramuscularly. This drug may have little or no effect on the patient who is already being treated with diazepam; but it is otherwise useful in calming the agitated or hysterical patient.

Chlorpromazine (Largactil) is effective in controlling the patient in an acute schizoid state. The dose varies with the age and sex of the patient—a fit young man will require 300 mg intramuscularly, while 200 mg intramuscularly is suitable for a woman patient. Older patients require smaller doses.

Sodium amytal—This drug may be used with chlorpromazine in treating patients in acute schizoid states or when the patient is particularly distraught. The dose given is 300 mg intramuscularly for a fit young man, 200 mg intramuscularly for a fit young woman, and a smaller dose for the elderly patient.

Haloperidol (Serenace)—This may be used for the patient in an acute schizoid state, but is the drug of choice for manic episodes. The dose is 30 mg intramuscularly for a fit young man, 20 mg intramuscularly for a fit young woman, and a reduced dose for patients over 60 years of age.

Medium-term action

It may be necessary to admit the patient. If a crime has been committed the police remove the person concerned into custody. Otherwise the admission may be compulsory or voluntary.

Voluntary admission—In the case of voluntary admission the main problem seems to be in obtaining admission to a psychiatric hospital, which always seems more difficult than other kinds of admission. If it is possible, however, everyone prefers that the patient agrees to hospital admission.

Compulsory admission—Under the 1959 Mental Health Act (England and Wales) patients can be admitted to hospital against their own wishes provided that the persons signing the section agree that the patient is a danger to himself or others, or both, if allowed to remain where he is. (For Scotland and Northern Ireland see below.)

Section 25 requires the signatures of two medical practitioners on form 3A (obtainable from Her Majesty's Stationery Office, but usually carried by the appointed psychiatrist). One of these may be the patient's general practitioner and the other must be a psychiatrist appointed by the local health authority. This commits the patient to a compulsory admission of 28 days for observation.

Section 29 requires the signature of two people. One of these must be a medical practitioner and is usually the patient's own doctor. The other may be a "friend" of the patient—either a relative or a social worker. The difficulty in obtaining the signature of the social worker is that he may well be off duty, and his deputy may be 60 miles away at the time the signature is needed. To avoid this problem it is worth carrying a personal supply of the necessary form 2 or 3A (obtainable from HMSO) which will enable a relative to supply the second signature (a list of those regarded as relatives may be found on the reverse of form 2). If it becomes necessary to involve the social worker in any way with the possibility of admission of a patient under Section 29 the medical practitioner may claim a fee from the area health authority (using a form obtainable from the Social Services Department). The Social Services may be reluctant to provide one with this form, but do insist, the fee being £16·60 for a general practitioner and £20·10 for a doctor with special experience. It is also possible to claim a mileage allowance. Section 29 admits the patient for 72 hours' observation.

Section 135. Under this section a magistrate and social worker may admit a person to a place of safety.

Section 136. Under this section a police officer may admit a person to a place of safety from a public place.

Obviously sections 25 and 29 are those most likely to affect the general practitioner. The section preferred will vary from area to area. In my area the psychiatrists dislike using Section 25 and the social workers dislike using Section 29. This makes compulsory admission very difficult on the rare occasions on which it is considered, but the Act allows a relative to co-sign Section 29 (form 2 or form 3A may be used) with the general practitioner. The social workers discourage us from using this method, saying that it is not in the patient's best interest. The disadvantage of compulsorily admitting a patient to a psychiatric hospital with "open" wards is that the patient may easily walk out again, sometimes within hours of having been admitted.

Conclusion

While it may not be possible to provide a cure for these patients, much can be done to try to prevent a recurrence of the acute violent episode. The general practitioner is in an ideal position to facilitate a change in attitude and management on the part of the whole family at a level they can understand, which should contribute to better control of the underlying condition—for example, once the family of a schizophrenic patient fully understand the importance of regular medication in the prevention of relapses they may be able to persuade the patient, who is often very reluctant to continue his long-term drugs, to take them regularly. It may also be possible to explain to the family that the reduction of tensions and pressure on the patient will cause fewer relapses.

Scotland and Northern Ireland

Scotland and Northern Ireland are covered by different Acts, but there is no difference in the intent of the Acts. The relevant sections of the 1960 Act on Scotland are Section 23, which is equivalent to our Section 25, and Section 31, which is equivalent to our Section 29. Sections 135 and 136 are represented in the Scottish Act by Sections 103 and 104. In Northern Ireland the 1961 Act can be invoked.

My thanks to my wife Susan, Mrs J Gould, and Mrs A Lacey-Hulbert for help in preparing this paper.

Reference

[1] Hall P. Notes on the management of psychiatric emergencies. *Update* 1978; 17:933-40.

Oddity remembered: top secret

I was born before the first world war in the village of Trecynon near Aberdare. My father was the local doctor, and most of his patients were colliniers. During the long lockout of the miners in 1921 the people suffered great poverty. My father's relative wealth isolated my brother, my sister, and myself from the other children. Children's play was the one activity that brought us out of our isolation: playing with tops and hoops, high backs, leapfrog, hop-scotch, and dickstones (jackstones in England). About 60 years ago I was playing with my top in Trecynon Square with a group of other children and whipped it through the window of Mrs Evans's sweet shop. She had a ginger cat who slept inside the window; I missed him. All the children ran away so Mrs Evans did not know who had smashed the window.

Some years later I was called to see Mrs Evans's grandson who had pneumonia. By then we were using sulphappridine, but Mrs Evans had other ideas, for, in spite of the stench produced in the bedroom, she had put a sheep's lungs at the patient's feet under the bedclothes. The principle on which her treatment was based was that if the sheep's lungs rotted rapidly it meant that they had drawn the infection from the child. The child recovered so Mrs Evans and I both claimed the credit.

After another 20 years had passed Mrs Evans herself became ill. This time, at last, after 40 years I confessed that I was the little boy whose top had smashed her shop window. But at 90 years of age she died for my medicine did not work and no one tried a sheep's lungs.—ALISTAIR WILSON, general practitioner, Aberdare.

We will be pleased to consider for publication other interesting clinical observations made in general practice.—ED, *BMJ*.