

## NEWS AND NOTES

## Views

*Minimum disturbance of the patient is one of the essentials in the technique of in vitro fertilisation pioneered by Mr Patrick Steptoe and Dr R G Edwards. Describing their methods last week at the Royal College of Obstetricians and Gynaecologists they laid great emphasis on the need to preserve the normal hormonal changes of the ovulatory cycle in which the ovum is removed. Circadian rhythms are also important: their four successful reimplantations of 16 cell embryos were all done at night.*

The "drug lag"—the delay between the introduction of new drugs in Britain and their approval in the United States—has become smaller in the past five years (*Clinical Pharmacology and Therapeutics*, 1978, **24**, 499). The explanation, says William M Wardell, is that the British have become more conservative and the Americans more realistic. Even so, voices are still heard claiming that the seven-year-delay in approval of beta-blockers was beneficial.

*Members of both Houses mixed amicably at a party to launch Parliament's contribution to the International Year of the Child. A panel has arranged monthly sessions during the year: Professor Donald Court on health care, Dr Mia Kellmer Pringle on preparation for parenthood, and other speakers on education, delinquency, children in care, adoption, and the need for legislation. With the drink flowing well Minerva was saddened to remember that for many children the United Nations' 1959 Declaration of the Rights of the Child have never been fulfilled—"the right to adequate nutrition and medical care; the right to full opportunity for play and recreation; the right to be brought up in a spirit of peace and universal brotherhood."*

A particularly depressing form of child abuse—because it required deliberation and care—is reported in the *Archives of Disease in Childhood* (1978, **53**, 968). A 23-month-old girl covered in bruises had, according to her parents, fallen from her push-buggy. But a sewing needle was deeply embedded in her right buttock, and this was hardly likely to have got there by accident or unnoticed. There was no pinprick on the skin or any other exterior sign of the needle—it was discovered only on x-ray.

*Why are doctors so bad at communicating with their patients? —the dominant criticism in the research paper on patients' attitudes published by the Royal Commission on the NHS. Minerva suspects that the reason is that so many of them are English—a race of men so reticent that they regard silence as normal in lovemaking.*

Thalassaemias and haemoglobinopathies are common in Sicily and a centre for their study has been established at Catania since 1965 (*Nature*, 1978, **276**, 761). Haemoglobin S is the commonest variety, suggesting spread from Africa, but a great many other abnormal haemoglobins have been detected.

Over a million Sicilians emigrated between 1951 and 1971, so these variants are likely to turn up anywhere.

*Lord Smith's letter to members in the current "Journal of the Royal Society of Medicine" pours a lot more oil on the troubled waters but it still leaves unanswered the questions raised by Dr Herbert Barrie and his colleagues in the "Lancet" last October. Minerva (who is not herself a Fellow) hopes that the letter is a sign that the exchanges will now be conducted in the RSM's own journal.*

A young chemist made a casserole containing vegetable roots which he thought were wild parsnips gathered from the banks of a stream. Soon after the meal he developed convulsions, and two friends were less severely affected. In hospital he was found to have biochemical evidence of muscle and liver damage (*North Staffordshire Medical Institute Journal*, 1978, **10**, 28). The offending plant was identified as the water hemlock, which is widely distributed and is probably the most poisonous plant in Britain. In this case the patient recovered rapidly with prompt treatment, but where convulsions occur the mortality rate is high.

*A case of human monkeypox in West Africa reported by WHO in its "Weekly Epidemiological Record" (1979, **2**, 12) is the 35th reported since 1970. The virus is closely related to smallpox but is clearly distinguishable, and the reservoir of infection is thought to be in monkeys. The secondary attack rate in monkeypox is only 4% (compared with 30-45% in smallpox), but the disease can be fatal—and its very persistence should answer the critics clamouring for an end to smallpox research.*

Anyone wanting something entirely different to worry about should read *Science* (1979, **203**, 153) on the NASA forecasts about the re-entry of Skylab into the atmosphere this summer. The 85-ton satellite will scatter debris over an area 4000 miles long and 100 miles wide. Some pieces will weigh over two tons. The chance of a piece weighing 250 pounds or more landing on a city of 100 000 people is put at 1 in 40. Unfortunately NASA won't be able to predict sites of impact until 90 minutes before it all starts to come down.

*None of the press comment on the hospital workers' strike last week mentioned that in many hospitals, while the patients were given their meals, the doctors and nurses were not. Those unprovided with sandwiches went hungry.*

Will someone explain to Minerva how a man who had intolerable itching in his phantom legs (removed for Buerger's disease) got relief not by scratching the stumps but the limbs that weren't there (*Journal of the American Medical Association*, 1978, **240**, 2431)?

MINERVA

## EPIDEMIOLOGY

### Contaminated hospital water supplies

The following notes are compiled by the Communicable Disease Surveillance Centre (Public Health Laboratory Service) and the Communicable Diseases (Scotland) Unit from reports submitted by microbiologists, community physicians, and environmental health officers.

In November 1977 the control of infection nursing officer at a Reading hospital was informed by the sister-in-charge of an operating theatre that the water from the mixer taps at the scrubbing-up sinks had a musty smell. Samples submitted for bacteriological examination showed gross contamination with coliform organisms when the water was running cold. The cold water supply was checked by the hospital engineers and the source of contamination was eventually traced to a roof storage tank. This was dilapidated, had an ill-fitting lid, and contained a dead bird.

As a new storage tank was available it was substituted for the old one and the system flushed through. Repeat water samples, however, still indicated a considerable degree of contamination. The tank contents, estimated to contain 160 gallons (727 litres), were then disinfected by the addition of about half a gallon (2.7 litres) of hypochlorite, giving a concentration of about 300 ppm of chlorine; the water was then allowed to run through the pipework until it appeared pink at all taps. The whole system was then shut off for 24 hours. Next day the tank and pipework were flushed through until water at the taps no longer smelt of chlorine. Follow-up bacteriological samples were then found to be satisfactory and have remained so.

Fortunately, not all the sinks in the affected theatre suite were served by this particular tank and scrubbing-up could be done at another sink, allowing some operations to continue during this time. Perhaps curiously, there was no indication of an increased incidence of postoperative wound infections during the period immediately preceding the discovery of the contamination. Presumably, wearing gloves and the fact that most of the operations were being performed in the relatively contaminated field of the ear, nose, and throat had something to do with this.

Some years previously a large new water storage tank had been installed at this hospital and it had not been realised that the faulty tank, which was in an older part of the hospital, was still functioning. This experience serves as a reminder<sup>1, 2</sup> of the need to know the details of the water supply systems in our hospitals, especially those of 19th century vintage, and the need for regular maintenance and regular sampling for bacteriological and perhaps chemical tests. There is also a need for some taps to be specified as supplying "drinking water."

The Control of Infection Team,  
Reading Hospitals, and Reading  
Public Health Laboratory

During 1975-6 a new hospital complex, which included a pathology laboratory, was opened. By chance the water to the laboratory was tested and was shown to be grossly contaminated. Subsequently, contamination with "coliforms" and *Pseudomonas fluorescens* was

found throughout the hospital, including water from operating theatre taps.

The mains supply to the hospital went through a water-softening plant and was then stored in various underground and roof tanks for 24 hours or more before distribution. A holding system of this kind is meant to prevent furring of pipes, to achieve savings in soaps and detergents, to avoid the cost of additional chemical treatments at the main boiler plant, and to ensure a 24-hour reserve water supply. Unfortunately, the softening process had been dechlorinating the water. The problem was resolved by installing a chemical reagent feeder pump, which controlled the chlorine level at about 2 ppm.

Since the system described is apparently widely used, perhaps all hospitals, new and old, should regularly check water supplies.

Medical Microbiologist,  
Kettering Health District

A recent "epidemic" of nematode larvae in specimens examined in the laboratory of a third hospital was traced to contamination of uncovered water tanks in an exposed roof space. The building was erected in 1939, and its plumbing, therefore, is as modern as that of many other hospitals. Since this discovery two other instances came to notice of similar larvae, almost certainly contaminants, being

found in laboratory specimens at other hospitals, and in these cases they were reported as *Strongyloides*. Misinterpretation of such a finding in histological sections or aspirates may lead to intensive but unnecessary investigation. In fact, the larvae in question, or even small adult worms, belonged to the large group of free-living nematodes often referred to as "eel worms." They may be about the same size as the rhabditoid larvae of *S. stercoralis*, to which some species show a general morphological resemblance, or they may be considerably larger. The simplest points of distinction are their blunt square nose and long tapering tail. They are non-pathogenic (though there have been a few unconfirmed reports of their presence in human urine or body cavities). They are widely distributed in nature, but the most likely source of contamination in a hospital specimen is the water supply. This can be checked by connecting a tap to a membrane filter, flushing the water through it for a few minutes, and examining the membrane under a microscope. Other contaminants in this instance were rotifers, spirogyra, and vorticella.

Pathology Department,  
Hospital for Tropical Diseases,  
London

<sup>1</sup> Thomas, M E M, Piper, E, and Maurer, I M, *Journal of Hygiene*, 1972, 70, 63.

<sup>2</sup> Tabaqchali, S, Stevens, J K, and Gazidis, C, *Lancet*, 1977, 2, 84.

## MEDICOLEGAL

### Ricin—a potent homicidal poison

BERNARD KNIGHT

A substance previously unrecorded in Britain as a homicidal poison was the cause of death of 49-year-old Georgi Markov, the Bulgarian broadcaster, according to the verdict of an inquest held by the West London coroner, Mr Gavin Thurston, on 31 December.

The toxic substance used in this extraordinary case was ricin, which is derived from the castor oil seed. The method of administration was equally bizarre, and, though the persons responsible remain unknown, it has been widely assumed that Mr Markov was killed by an East European agent because of his unwelcome political propaganda directed at his country of origin.

#### Circumstances of death

Mrs Markov told the inquest that while her husband was waiting for a bus near Waterloo Bridge on 7 September last year, he had felt a jab in the back of his right thigh and looking round had seen a man drop an umbrella. After apologising, the man immediately made off in a taxi. Mr Markov returned home and within a few hours became very sick, having a high fever. Mrs Markov described finding blood

on the inside of her husband's trousers and seeing a mark on the back of his right thigh. The next day his fever continued and he was admitted to St James's Hospital, Balham, where examination of his right thigh showed a circular area of inflammation with a central puncture mark of approximately 2 mm diameter. The patient's condition declined rapidly, with a fall in blood pressure and temperature. A tentative diagnosis of septicaemia was made, since the leucocyte count reached the very high figure of 33 000 per cu mm. Mr Markov died on the third day after the infliction of the injury.

#### Postmortem findings

A necropsy was carried out by Dr Rufus Crompton of St George's Hospital. A single metallic sphere about the size of the head of a pin was found subcutaneously beneath the wound in the right thigh. It was 1.52 mm in diameter and was composed of an alloy of 90% platinum and 10% iridium. The sphere had two tiny holes bored right through it, crossing in the middle. The diameter of each hole was 0.35 mm. The volume within the

sphere available for the retention of a toxic agent was thus only of the order of 0.28 cu mm.

The pellet was examined by Dr David Gall at the Government Chemical Defence Establishment at Porton Down. Though no specific isolation of any poison was possible, Dr Gall was satisfied that the most likely substance was ricin. The symptomatology and the exceptionally high toxicity for such a small dose made ricin virtually the only choice. He described an experiment with a pig which had been injected with a somewhat greater dose than Mr Markov had received; the animal had died after 26 hours with an illness similar to that of Mr Markov. The coroner was satisfied that ricin was the poisonous agent and that Mr Markov had been unlawfully killed. Commander James Neville, head of Scotland Yard's antiterrorist branch, indicated that police inquiries had not shown who was responsible for the death.

### Ricin

The castor oil plant (*Ricinus communis*) is cultivated commercially, especially in the southern United States, but is also widespread as a weed and as an ornamental plant. Though native to tropical Africa, the plant has been introduced and has naturalised in most sub-tropical and even temperate climates.

The entire plant of the castor bean is poisonous, containing the toxalbumin ricin, which reaches the highest level in the seeds. There is also a powerful allergen present in the plant, and the seeds are rich in a purgative oil that owes its action to a triglyceride of ricinoleic acid. The oil has excellent lubricating qualities and has been used widely in the motor industry. There are other extensive industrial uses, such as in the production of rubber and plastic foams. Ricin is not extracted with the oil but remains in the fibrous residue.

Ricin is well known as a poison in some countries outside Europe, the usual victims being animals, though there are many human fatal and non-fatal cases on record. In India cattle are said to be killed by malicious neighbours by the subcutaneous insertion of metal nails coated with an extract of castor beans. Poultry have been lost because nearby castor bean plants have been propelled into their pen, as the seeds may travel 25 feet after the bursting of the fruit capsules. There have been horse and cattle fatalities from animals eating grain accidentally contaminated with castor beans during transport. In places such as Texas, where large scale commercial cultivation is carried on, the press-cake left after the extraction of castor oil is heat-treated (which destroys the ricin) and so turned into animal food, but any defect in this process may lead to poisoning.

The fruit contains three seeds which are 5-15 mm long with attractive mottled markings of variable colour. These seeds are frequently used to make necklaces, especially in Mexico. Toxic symptoms and severe allergies have arisen merely from the handling of such trinkets. In 1965 a 17-year-old girl was treated at the Aberdeen Royal Infirmary in Scotland for the effects of swallowing a castor bean from a Jamaican necklace. She had developed almost immediate respiratory difficulty, choking, facial oedema, and lacrimation. A Miami girl suffered severe allergic reactions from handling a castor bean necklace brought by her mother from Mexico long before. A student in Wisconsin also had very severe

allergic symptoms from the crumbling in her fingers of a bead from a Mexican necklace.

Agricultural and industrial workers have developed severe allergic and toxic reactions while handling castor beans in places as far apart as Rumania, East Africa, and Baltimore. The powerful allergen which accompanies ricin may cause severe rhinitis, urticaria, and anaphylactic shock.

The ingestion of ricin itself is extremely dangerous. It is a protein which even in high dilution causes erythrocyte agglutination. In small doses ricin causes severe haemorrhagic gastrointestinal irritation, nausea, violent vomiting, abdominal pain, profuse watery or bloody purging, thirst, dilatation of the pupils, shivering, and fever. In severe poisoning convulsions may precede death.

### Self-administration

In the tropics a widespread custom is to eat a single seed for the purgative effect, but this practice is recognised as being highly dangerous and has led to deaths. Sometimes the seeds are roasted to reduce their toxicity. Castor beans are widely available in some parts of the world, being sold in grocery stores in India, and after careful preparation they are used as a food in Nigeria. In East Africa unwanted children are said to be murdered by adding castor beans to their food. One to three seeds may be fatal to a child, two to four may be poisonous to an adult and eight may be fatal to an adult. Parenteral administration is far more dangerous than oral poisoning, because an appreciable proportion of ricin is destroyed in the alimentary tract. A dose as small as two-millionths of the body weight has proved fatal, ricin being weight-for-weight twice as poisonous as cobra venom. Ricin has antigenic properties and the only definitive method of detection in tissues is by means of immunological techniques using antiricin. Animals can be immunised against ricin by repeated small doses, so that they can withstand up to 800 times the usual lethal dose. Repeated doses of castor bean allergen have the opposite effect, increasing sensitivity.

### Further reading

- Balint, G A, *Toxicology*, 1974, **2**, 77.
- Morton, J F, in *Forensic Medicine: A Study in Trauma and Environmental Hazards*, vol 3, ed P Tedeschi, et al, p 1501. Philadelphia, Saunders, 1977.
- Verdcourt, B, and Trump, E C, *Common Poisonous Plants of East Africa*. London, Collins, 1969.
- Corwin, A H, *Chemurgic Digest*, 1954, **13**, 14.
- Robbins, W J, *Science*, 1923, **58**, 305.
- Ramakrishnan, S, et al, *Journal of the Association of Physicians of India*, 1972, **20**, 781.
- Raymond, W D, *Tropical Science*, 1961, **3**, 19.
- Lockey, S B, and Dunkelberger, L, *Journal of the American Medical Association*, 1968, **206**, 2900.
- Lupu, N G *Acta Allergologica*, 1962, **17**, 268.
- Strauss, A, *Revista do Instituto de Medicina Tropical de São Paulo*, 1968, **10**, 342.
- Cooper, W C, et al, *American Industrial Hygiene Association Journal*, 1964, **25**, 431.
- Derenzini, M, et al, *Virchows Archiv* (sect B), 1976, **20**, 15.
- Balint, G A, *Toxicology*, 1973, **1**, 175.

### Welsh National School of Medicine, Cardiff

BERNARD KNIGHT, FRCPATH, Barrister-at-Law, reader in forensic pathology

## PARLIAMENT

### Seat-belts

The Road Traffic (Seat-belts) Bill had its first reading in the House of Commons on 24 January. The Bill confers power "to make regulations requiring the wearing of seat-belts in motor vehicles and for purposes connected therewith."

## MEDICAL NEWS

### Yellow-card system extended to other products

Doctors and dentists are being asked from now on to report suspected adverse reactions to certain products to the Committee on Dental and Surgical Materials. This is an extension of the well-established "yellow-card" system of reporting adverse reaction to medicines to the Committee on Safety of Medicines. To avoid the use of a separate card the existing one has been modified to serve both purposes. The responsibilities of the Committee on Dental and Surgical Materials include the collection and investigation of information on adverse reactions to intrauterine contraceptive devices; contact lenses and contact lens fluids; dental pharmaceuticals and dental filling substances; and certain ligatures sutures, and surgical dressings.

### Help for the incontinent and disabled

Although advanced equipment is available for the incontinent, many of those who care for such people do not know about it, according to the National Council for the Single Woman and her Dependants. The council, whose work is concerned with the elderly infirm and disabled, urges that GPs should give advice on the most up-to-date equipment for all such patients. It also points out that many disabled people are not aware that they are entitled to the attendance allowance and suggests that the GP is often the appropriate person to tell them about the allowance.

### People in the news

Dr F B Beswick has been appointed bursar of the University of Manchester from 1 January 1980.

Professor J K Mason has been awarded the Swiney prize for medical jurisprudence for his work *Forensic Medicine for Lawyers* and his edition of *The Pathology of Violent Injury*.

### COMING EVENTS

"Further action on the Act"—Conference organised by *Community Care* and the National Association for Mental Health, 8-9 February, London. Details from John Barter, MIND (01-637 0741), or Terry Philpot, *Community Care* (01-643 8040 ext 4325).

Paediatric Topics X—Symposium, 17 February, London. Details from Dr Michael Joseph, Department of Paediatrics, Guy's Hospital, Medical School, London SE1 9RT. (Tel 01-407 7600 ext 3342.)

Royal Society—Meeting for discussion, "Influenza," 21-22 February, London. Details from the society,

6 Carlton House Terrace, London SW1Y 5AG, ref DM.2/CAJ. (Tel 01-839 5561, ext 278.)

**British Society of Medical and Dental Hypnosis**—Metropolitan Branch, introductory course for doctors and dentists, 24-25 February, London. Details from Mrs M Samuels, 42 Links Road, Ashted, Surrey KT21 2HJ. (Tel Ashted 73522.)

**Institute of Urology**—Course "Urology for the FRCS," 16-17 March, London. For details see advertisement at p xii.

**Institute of Obstetrics and Gynaecology**—Symposium "Infections in obstetrics and gynaecology: current views on management," 23 March, London. Details from symposium secretary, Institute of Obstetrics and Gynaecology, Queen Charlotte's Hospital, Goldhawk Road, London W6 OXG. (Tel 01-748 6802 ext 355.)

**"Drug treatment in chronic cerebrovascular disorders"**—International seminar, 2-4 May, Milan. Details from Istituto di Ricerche Farmacologiche "Mario Negri," Via Eritrea 62, 20157 Milan, Italy.

**Royal College of Surgeons of England**—Course "Fracture treatment with special reference to AO/ASIF techniques," 3-5 July, London. Details from the Surgical Training Office, Royal College of Surgeons of England, 35-43 Lincoln's Inn Fields, London WC2A 3PN. (Tel 01-405 3474 ext 28.)

**Sports Medicine Conference**—6-8 July, Cardiff. Details from the Association of Chartered Physiotherapists in Sports Medicine, Suite 4, 25 Weymouth Street, London W1. (Tel 01-636 4960.)

**Fifth British Academic Conference in Otolaryngology**—22-27 July, Birmingham. Details from Mr P Abbey, 1 Dorset Road, Windsor, Berks.

## SOCIETIES AND LECTURES

For attending lectures marked \* a fee is charged or a ticket is required. Applications should be made first to the institutions concerned.

### Sunday, 4 February

**INSTITUTE OF LARYNGOLOGY AND OTOTOLOGY**—10.15 am, Sunday morning seminar for general practitioners, Dr L H Capel: Mouth and throat cancer.

### Monday, 5 February

**INSTITUTE OF DERMATOLOGY**—4.30 pm, Dr T W E Robinson: Metabolic disorders and skin.

**UNIVERSITY COLLEGE LONDON**—5.30 pm, Freud memorial lecture in psychoanalysis by Dr Joseph Sandler: Pain and depression: a psychoanalytic perspective.

### Tuesday, 6 February

**KING'S COLLEGE HOSPITAL MEDICAL SCHOOL**—8 pm, fifth annual Marjory Warren memorial lecture by Dr Felix Post: Brain failure—past and future.

**ROYAL ARMY MEDICAL COLLEGE**—5 pm, Dr M N Maisey: Present clinical applications of nuclear medicine.

### Wednesday, 7 February

**ASSURANCE MEDICAL SOCIETY**—At Medical Society of London, 5 pm, Dr Edward Reynolds: The management of the "sacred disease."

**INSTITUTE OF DERMATOLOGY**—4.30 pm, Dr M Thompson: Biochemical studies in human skin.

**INSTITUTE OF NEUROLOGY, QUEEN SQUARE**—Sandoz Foundation advanced lectures on clinical and experimental neurology, 6 pm, Dr P B C Matthews: Muscle stretch receptors. 7 pm, Dr P A Merton: Reflexes in human muscle.

**INSTITUTE OF ORTHOPAEDICS**—6 pm, Mr D J Dandy and Dr D J Stoker, chairman Mr E L Trickey: Arthroscopy and Arthrography.

**ROYAL COLLEGE OF PHYSICIANS OF LONDON**—5.40 pm, Watson Smith lecture by Professor R H T Edwards: Physiological and metabolic studies in human myopathy.

**INSTITUTE OF PSYCHIATRY**—5.30 pm, Dr J J Sandler: Unconscious wishes and human relationships.

**UNIVERSITY COLLEGE LONDON**—5.30 pm, Dr Thomas Hökfelt (Stockholm): Peptide neurons—widespread occurrence in the nervous system.

**UNIVERSITY OF OXFORD**—At Radcliffe Infirmary, 5 pm, Professor Sir Richard Doll: Nutrition in the aetiology of cancer.

### Thursday 8 February

**ONCOLOGY CLUB**—At Royal Marsden Hospital, 6.30 pm, Dr T Connors: Are animal experiments of any relevance to clinical oncology? (Open to anyone interested in oncology.)

**HONYMAN GILLESPIE LECTURE**—At Royal Infirmary, Edinburgh, 5 pm, Dr A F Lever: Essential hypertension—an enigma.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND**—5 pm, Aris and Gale lecture by Mr T L Dormandy: Free-radical reactions in biological systems.

**UNIVERSITY OF CAMBRIDGE**—At Department of Genetics, Downing Street, 4.30 pm, Dr P Anderson: Tandem genetic duplication in bacteria.

### Friday, 9 February

**INSTITUTE OF LARYNGOLOGY AND OTOTOLOGY**—5.30 pm, Dr L Sinclair: Thyroid disease in childhood.

**UNIVERSITY OF LIVERPOOL**—At Royal Liverpool Hospital, 5 pm, Dr P D Salpekar: Fat embolism—recent advances.

### Saturday, 10 February

**UNIVERSITY OF LIVERPOOL**—At Royal Liverpool Hospital, 9 am, Mr J F Taylor: Anatomy and physiology of low back pain.

## BMA NOTICES

### Central Meetings

- FEBRUARY
- 8 Thurs Central Committee for Hospital Medical Services, 10 am.
  - 9 Fri Central Committee for Community Medicine, 10 am.
  - 9 Fri Honorary Secretaries Conference, 10 am.
  - 14 Wed Hospital Junior Staff Committee, 10 am.
  - 15 Thurs General Medical Services Committee, 10 am.
  - 15 Thurs Negotiating Subcommittee (CCHMS), 10 am.
  - 16 Fri General Purposes Subcommittee (CCHMS), 10.30 am.
  - 21 Wed BMA Council Executive, 10 am.

### Division Meetings

Members proposing to attend meetings marked \* are asked to notify in advance the honorary secretary concerned.

**Bradford and Airedale**—At University of Bradford, Wednesday, 7 February, 8.30 pm, joint meeting with Bradford Medico-Chirurgical Society and Bradford Law Society, Mr J A Turnbull: "Are we concerned?—Some reflections on the medicolegal scene."

**Brighton and Cuckfield**—At Dudley Hotel, Friday, 9 February, 8.30 pm, joint meeting with Sussex Law Society, Dr S D M McConville: "Crime and responsibility—some moral and political doubts." (Preceded by dinner, 7.15 for 7.30 pm.\*)

**Dudley**—At Station Hotel, Thursday, 8 February, 7.45 pm, annual dinner dance.\*

**Durham**—At Dryburn Hospital, Monday, 5 February, 8.30 pm, Professor E Sunderland: "Genetic variation in the population of Great Britain." (Preceded by supper, 7 for 7.30 pm.\*)

**East Surrey**—Tuesday, 6 February, 8.30 pm, business meeting.

**Edgware and Hendon**—At Hendon Hall Hotel, Tuesday, 6 February, 8.30 pm, Dr D Geraint James: "Helpful new treatments."\* (Guests welcome.)

**Leeds**—At Leeds General Infirmary, Wednesday, 7 February, 8 pm, Dr J C Cameron: "Current problems." (Guests welcome.)

**North Warwickshire**—At Novotel, Coventry, Tuesday, 6 February, 7.30 for 8 pm, dinner, speaker Dr R E Smith: "Poets from North Warwickshire."\* (Guests very welcome.)

**Wakefield**—At Pontefract General Infirmary, Thursday, 8 February, 7.30 for 8 pm, clinical meeting organised by the Leeds and West Riding Medico-Chirurgical Society.

**Wolverhampton**—At Masonic Hall, Wednesday, 7 February, 7.30 for 8 pm, annual BMA dinner.\*

### Regional Meetings

**North-east Thames Regional Hospital Junior Staff Committee**—At BMA House, Wednesday, 7 February, 6 pm.

## UNIVERSITIES AND COLLEGES

### ROYAL COLLEGE OF SURGEONS OF ENGLAND

At an extraordinary meeting of the Council held on 10 January with the president, Mr R S Murley, in the chair, diplomas of Fellowship were granted to the following—P M Brown, R M Pearce, A M Burke, D M Hunt, A James, P J Shouler, Anne N Brain, D J Jones, M J Allen, T C Naunton Morgan, N P Ingram, M H Sellwood, S J Wooltorton, J K Pye, A G Skanderowicz, T E Bucknall, A C Eaton, H S Goh, I J Reece, J H Plaschkes, M S Rahaman, R N Goyal, A K Adhya, V H Patel, R P Singh, A E H Bakry, A A Wahab, H A Ahmed, J M Bora, Chirasi D Mallawaratchi, K N Prabhakar, M F A E-A Sharara, D K Yanah, L N Al-Mumaziz, M K T El Massri, Diana F Hoff, J Marrow, A A Nasher, R Yogasagar, A B Abyeysinghe, R J Buckley, M J Coleman, R Johri, M S H Khan, A Lal, P J A McCluskie, M Salahuddin, Pamela F Sims, R L Smith, A K R Al-Dabbagh, H A K Hassan, Suman Kaushik, Sumitra Pal, P D Sharma, S Y L S Wickramasinghe, K Balakrishnan, G A G Fuller, T M Harris, M D Humby, R F Kalmár, C S Migdal, W J Mintowt-Czyz, R Nagendran, P Ray Chaudhuri, K J Vaux, K D Boffard, P A Bryant, H D O Garrick, J M Hack, Shobha V Nerlikar, Anthea N Walker, J D Caswell, G H Cowie, D J Ellis, M S Hockey, V S V B Hota, P W J Houghton, E T R James, G Akhoury, Ruth L Lester, W F Merrim, C G Morran, H D Ngwira, T Philp, D P Sellu, M L Sharma, J N L Simson, G W Southgate, I R Townend, T A Andrew, B G Bolton-Maggs, K N Bullock, W B Campbell, N D Carr, M A Currie, D R Donaldson, C G Fowler, T Goodfellow, J F Haines, R N L Harland, R N L Harland, G H Hutchinson, A Lipner, Fiona P Moore, C I Morrong, I C Parkes, I A H Pike, K M Porter, D J Pring, C J Pritchett, R M Rainsbury, J M Simms,

## Instructions to authors

The following are the minimum requirements for manuscripts submitted for publication.

A stamped addressed envelope or an international reply coupon *must* accompany the manuscript if acknowledgment of its receipt is desired.

(1) **Typing** should be on one side of the paper, with double or triple spacing between the lines and 5-cm margins at the top and left-hand side of the sheet.

(2) **Two copies** (or preferably three) should be submitted.

(3) **Spelling** should conform to that of *Chambers Twentieth Century Dictionary*.

(4) **References** must be set out in the style used in the *BMJ*, and their accuracy verified before the manuscript is submitted.

(5) **SI units** are used for scientific measurements. In the text they should be followed by traditional units in parentheses. In tables and illustrations values are given only in SI units, but a conversion factor must be supplied. For general guidance on the International System of Units, and some useful conversion factors, see *The SI for the Health Professions* (WHO, 1977).

(6) **Authors** should give their names and initials, their current appointments, and not more than two degrees or diplomas. Each author must sign the covering letter as evidence of consent to publication.

(7) **Letters to the Editor** submitted for publication must be signed personally by all the authors.

(8) **Acknowledgments** will *not* be sent unless a stamped addressed envelope or an international reply coupon is enclosed.

(9) **Detailed instructions** are given in the *BMJ* dated 6 January 1979 (p 6).

N P Thomas, R M D Tranter, T J Turnbull, R T Walker, A D Wells, J A Wilde, W G A Woods, N J Henderson, L A Mercurius-Taylor.

At a quarterly meeting of the council held on 11 January with the president, Mr R S Murley, in the chair, it was reported that Dr Frank E Stinchfield, immediate past president of the American College of Surgeons, had accepted election to the honorary fellowship. Mr W F Davis, secretary of the college appeal since its inception, was elected a member of the Court of Patrons.

The death of Mr Norman Barrett and of Professor Walter Mackenzie were reported with deep regret.

Mr C White was appointed Thomas Vicary lecturer for 1979. Mr J Dowse was appointed college surgical tutor at Bridgend, for five years in the first instance.

### ROYAL COLLEGE OF SURGEONS OF EDINBURGH

At a meeting of the council of the college held on 19 January the following were admitted to the fellowship—M M Alam, M A F Al-Bayatti, S A H Al-Sarraf, T A Andrew, M I A R Atrah, M H Ayoub, C H Ayub, M Azizogli, R H C Bentall, N H Bharwani, M S Binns, D A Campbell, A G Couits, W A Crookendale, W E Dawes, W G Donaldson, G L Driscoll, E R Elias, S H S El-Sherif, N J Formosa, A H Hnoosh, A G Hussain, G H Hutchinson, D Jaffray, R A Johnston, K Saktunanantham, S A Khan, A Kumar, I K Keung, K H Lo, A Majeed, Fiona P Moore, R B Mehta, J A M Murray, D Pavithran, M V Prescott, Q Quazi, B Ramakrishna, Dulber N Rashid, P Ravi, M Roberts, D A Rosenberg, Roslan Bin Arshad, W D Shaer, G K Sharma, W I Wei, H F Wong, Wong, Twee Juat, Yeoh Poh Hong, J K Y Yu.

### © British Medical Journal 1979

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the *British Medical Journal*.