

NEWS AND NOTES

Views

Flowers-watchers and conspiracy theorists will be interested to see that the latest RAWP calculations, from the Advisory Group on Resource Allocation, show that the Westminster Medical School's teaching hospitals still have the greatest excess cost per student of any English medical school. For the dozen or so people who understand RAWP formulas this may be no surprise. Minerva, who does not understand RAWP formulas, can only record that in 1973-4 the Westminster's excess costs per student were 101% of the median; in 1977-8 they were 108%.

Some of the associations between unemployment and health are far from obvious. A recent study reported in the "Journal of Epidemiology and Community Health" (1980;34:93-5) found that when patients with myocardial infarction were compared with controls a higher proportion of their fathers had been unemployed for more than a year in their childhood. Should we be preparing for an epidemic of coronary thrombosis 20 years from now?

Not wishing to leave her readers too bewildered, Minerva feels bound to add that the hypothesis proposed to account for this finding is that children who have grown up in poverty may have a reduced tolerance for fats, and if their fat consumption then rises when they are adults they may be unusually prone to coronary artery disease.

How do doctors learn about new drugs and acquire practical knowledge about their use? A survey of physicians reported in "Annals of Internal Medicine" (1980;92:690-2) puts medical journals well ahead of continuing education, colleagues, drug representatives, and other sources.

Egg laying by the large white butterfly was drastically reduced when cabbage leaves were sprayed with extracts of Mexican and Turkish cannabis (*Nature* 1980;286:56-9). The Mexican variety (containing largely tetrahydrocannabinol) was seven times as potent as the Turkish (mainly cannabidiol). Minerva would like to believe that butterflies could substitute for dogs as sniffers in searches by the police.

Americans seem to have an insatiable appetite for new cure-all vitamins. The latest is "vitamin B₁₅" or pangamic acid, which, according to the "Journal of the American Medical Association" (1980;243:2473), is being promoted for heart disease, aging, diabetes, gangrene, hypertension, glaucoma, alcoholism, hepatitis, allergies, jaundice, dermatitis, neuralgia, and neuritis. Tests suggest that pangamic acid may be mutagenic. Like the so-called cancer cure laetrile, pangamic acid is extracted from apricot kernels; and like laetrile it has no approval from the Food and Drugs Administration but is still selling in health food stores.

Despite some recent optimistic research reports, no totally reliable test is yet available for detection of carriers of Duchenne muscular dystrophy. When the genetic counselling service in

Nottingham (*Journal of Medical Genetics* 1980;17:165-9) tried the new techniques based on lymphocyte capping and myoglobinaemia no better results were obtained than with the well-established method that uses creatine kinase activities (but which detects only 70-75% of carriers).

A neat slogan from anti-abortion campaigners reported in "LAM" (the weekly magazine for Australasians in London): "Statistically the most dangerous place for an Australian in 1980 is a mother's womb."

Women can be taught easily enough to examine their breasts for cancer, but they forget to do so regularly, says surgeon Rodney T West of Honolulu (*American Journal of Obstetrics and Gynecology* 1980;137:211). In Honolulu sirens are blown once a month to test their use in case of tidal waves or enemy attack (though another Pearl Harbour seems pretty unlikely). West tells his patients that the siren is a reminder to examine their breasts. What time of day does the siren sound, for goodness' sake?

Inhalation of volatile nitrites for kicks is a favourite pastime of the young (and not so young) that seems to be relatively harmless. Ingestion is another matter and may be extremely hazardous, says "Annals of Internal Medicine" (1980;92:637-8): methaemoglobinuria and hypotension occurred in two people who drank isobutyl nitrite, a constituent of liquid incense and room odorisers in the United States.

Self-induced seizures among epileptics are thought to be rare but a recent study of photosensitive individuals (*Journal of Neurology, Neurosurgery, and Psychiatry* 1980;43:386-9) showed that over a quarter could induce paroxysmal brain activity or seizures by slow eye closure and forced upward deviation of the eyes.

"Babies of Mothers with Leprosy have Small Placentae, Low Birth Weights and Grow Slowly"—so runs the title of a paper in the "British Journal of Obstetrics and Gynaecology" (1980;87:471-9). As titles get longer and summaries shorter one or other will become redundant.

Minerva was not surprised to learn that time-use studies have shown most women to work harder and for longer hours than men in all societies (*World Health* 1980 June:14-5). During family planning surveys in developing countries women have constantly said they are tired, and even in industrialised societies they often complain of lack of leisure and rest. At the same time, in much of the world they are excluded from decision making, and their work in the home is "economically undervalued and socially underrated." The article concludes that women's fatigue should be seen as a social disease.

MINERVA

EPIDEMIOLOGY

Food poisoning from raw red kidney beans

NORMAN D NOAH, A E BENDER, GABI B REAIDI, RICHARD J GILBERT

Summary and conclusions

The consumption of raw red kidney beans may lead to acute gastroenteritis, which may be severe. The toxic factor is most probably a haemagglutinin that is destroyed by adequate cooking.

Introduction

Although most outbreaks of food poisoning in Britain can be attributed to salmonellas, clostridia, and other micro-organisms,¹ there are some whose origins remain a mystery, even after detailed microbiological investigation.² Some of these may still be due to a microbe, possibly even one not yet identified; in others there may be a direct toxic effect, caused either by a food or a chemical. We report here seven outbreaks of gastroenteritis that were associated with eating raw red kidney beans.

eaten more than a few beans became acutely nauseated and began to vomit. Diarrhoea developed somewhat later. The two patients with the worst symptoms were admitted to hospital, and one needed an intravenous infusion. Recovery was rapid in all cases. None of the usual bacterial pathogens was isolated from faeces or vomit of the patients. An unopened packet of beans was available; *Bacillus cereus* was isolated from these beans after soaking, but the bacterial count of 10⁶ units/g was too low to have caused the illness. A county analyst failed to detect arsenic, mercury, lead, or cyanide in the beans; the Mycological Reference Laboratory isolated trichoderma at 26°C and penicillium at 30°C, but neither was thought likely to have caused the outbreak.

Since this episode a further six incidents have been reported (table I). In each incident all those who ate the suspected food became ill. The clinical features of nausea and vomiting followed by diarrhoea appear to have been common to most of the patients; occasionally abdominal pain was reported. The incubation period was very short (range 1-3 h), and recovery was complete and rapid. The smallest recorded "dose" to produce symptoms was four or five raw soaked beans (incident 2). In this episode, one other person developed

TABLE I—Reported incidents of food poisoning from raw red kidney beans

Incident	Year	No in party	At risk	No ill	Symptoms	Incubation period (h)	Preparation of beans	Comments
1	1976	17	9	9	N, V, D	1-1½	Soaked/raw <i>P vulgaris</i>	2 admitted to hospital, 1 needed intravenous fluids
2	1978	4	2	2	N, V, AP (D)	3	Soaked. Some eaten raw. Some casseroled at 150-160°/3 h	1 person ill after eating 4-5 raw soaked beans. Others ate beans from casserole
3	1979	30	15	15	V, D	2-3	Soaked/raw	—
4	1979	3	3	3	V, D	2	Soaked/raw <i>P vulgaris</i>	Severity related to dose
5	1979	3	3	3	N, V, D	2-3	Soaked and casseroled	Slow cooker
6	1979	2	2	2	N, V, D	1-2½	Soaked/raw	—
7	1979	79	9	9	V, D	2	Soaked/raw	—

N = Nausea; V = Vomiting; D = Diarrhoea; AP = Abdominal pain.

The outbreaks

The first of these outbreaks to be reported was in 1976.³ Seventeen schoolboys aged 17 years and three teachers on holiday returned to their hostel after a day out. A cooked chicken intended for supper was found to be unfit to eat, and an impromptu supper was made from salad, hard-boiled eggs, freshly cooked hot potatoes, and raw red kidney beans (*Phaseolus vulgaris*). A packet of beans had been emptied into a saucepan the evening before and soaked in water all day. The beans were not popular, and only nine ate them; a tenth ate only one or two beans.

Between one and one and a half hours later, all nine who had

symptoms after eating beans casseroled with meat and vegetables in an oven at 150-160°C for three hours, whereas two others who ate only meat and vegetables from the casserole did not.

The fifth incident (table I) also is of particular interest because the beans were soaked and then casseroled in a slow cooker at the "low" setting for two-and-a-half hours, when a portion was eaten. The remainder was eaten after a further three hour's cooking but still caused symptoms.

Investigations

MICROBIOLOGICAL

In all the incidents faecal samples from the patients and samples of beans were examined microbiologically. No likely pathogens were isolated from faeces, and the samples of beans contained only expected organisms in low counts.

BIOCHEMICAL EXAMINATIONS OF BEANS

A sample of beans that had caused vomiting and diarrhoea in 15 subjects (incident 3) and had been stored frozen was examined at Queen Elizabeth College for haemagglutinins (lectins), measured on a saline extract of the beans by reaction with rabbit blood erythrocytes.⁴

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The sample was shown to contain 19×10^3 units/g dry weight (table II), where one haemagglutinin unit is defined as the amount of material required to cause 50% sedimentation of standard cell suspension as assessed by serial dilution.

When raw red beans were soaked in water for several hours, about two-thirds of the haemagglutinins could be washed out—thus an initial level of 53×10^3 units in the red beans was reduced to 18×10^3 after soaking. This amount was close to that found in the sample responsible for the toxic effects reported in the 15 subjects in incident 3.

White kidney beans, another variety of *P vulgaris*, contained less toxin—namely, 17×10^3 units/g—but little of this was lost in soaking. Broad beans (*Vicia faba*), on the other hand, contained much smaller amounts of toxin (table II).

TABLE II—Lectin content of legumes. (Haemagglutinin units $\times 10^3$ /g dry weight of sample)

	Raw	Soaked
Red kidney beans	53	18
Stored sample (incident 3)	—	19
White kidney beans	17	14
Broad beans	3	3

When the raw unsoaked red or white kidney beans were fed to rats as 80% of the diet (20% protein level) all the animals died within three days. When fed as 40% or 20% of the diet (10% or 5% protein) death resulted after 3-11 days, while there were no obvious ill effects when the diet comprised 10% raw beans (2.5% protein) plus 10% casein. The lectins in the samples examined by us were completely destroyed after boiling for five to ten minutes. Other workers⁵ have found that adding haemagglutinins purified from red kidney beans to a rat diet caused loss of weight and death in the rats.

Discussion

These are not the first outbreaks of food poisoning from raw beans to be reported. In 1948 the population in West Berlin were fed "flaked" beans (*P vulgaris*) received by the air lift.⁶ The bean meal was cooked for too short a time, and a severe outbreak of gastroenteritis followed. The toxic substance in the beans was shown to be an agglutinin that was easily destroyed by thorough cooking.

In two of the incidents described in this paper the beans had been heated before consumption. In incident 5 the beans were put in a casserole, but the temperature reached was almost certainly not high enough to destroy the toxin. Studies on temperatures reached in an electric slow cooker showed a maximum of only about 75°C within a food,⁷ though liquids were heated almost to boiling. In incident 2 four or five beans were eaten by one person; the rest of the beans were said to have been cooked at gas Regulo 2-3 (about 160°C) for three hours, but it is likely that they remained, for the most part, raw, probably because heat penetration was inadequate (though probably enough to destroy any toxin that may have dissolved out into the water). We state this with some confidence because in all the other outbreaks only raw beans have caused symptoms. Moreover, red kidney beans are popular, and if cooked beans were a cause of gastroenteritis many more outbreaks would have been reported. Toxins found in uncooked beans include haemagglutinins, trypsin inhibitors, a goitrogen, and cyanogenic glycosides. That the haemagglutinins were the cause of the vomiting and diarrhoea appears likely. It is well established that proteins from *P vulgaris* are toxic to the rat, and the main

toxic component has been shown to be identical with the haemagglutinating lectins in the beans.^{8,9} The extremely toxic ricin in castor beans is also a haemagglutinin.¹⁰ These lectins probably reduce the absorptive capacity of the intestine: they have a great affinity for certain glycosides and adhere strongly to intestinal walls—in this respect they resemble the toxins associated with *Escherichia coli* and vibrios.¹¹

The possibility of poisoning from raw beans should be considered in outbreaks of gastroenteritis with short incubation periods. We are certain that only raw or undercooked kidney beans are toxic, and that adequate cooking renders these beans harmless, palatable, and nutritious. Possibly other beans may have similar effects if eaten raw. The results of animal studies, however, show that the most toxic haemagglutinins of the edible legumes are those of kidney beans and the field bean,¹¹ and it remains to be seen if the same applies to man. Since only red kidney beans have so far been reported to be associated with toxicity in man, this is probably so. We do not recommend that red kidney beans should be withdrawn from sale, but each packet should have clearly worded advice on cooking and a warning that they should not be eaten raw or undercooked. For beans sold loose a leaflet giving the same advice should be included.

Addendum

Since this paper was written, another outbreak has occurred; early in 1980, 10 people were ill after eating raw red kidney beans.

We thank the following environmental health officers and laboratory colleagues who undertook the prompt and essential field and laboratory investigations of the incidents described: Mr D R Burton, Mr R G Fidoe, Mr K R Fowler, Dr I Harper, Mr J H Hewitt, Mr E A Pain, Mr D A Parker, Dr J V S Pether, Dr M S Shafi, and Dr M B Skirrow. We are also grateful to Dr Alan Long of the Vegetarian Society for his help.

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MEDICAL NEWS

RAWP revised

The Advisory Group on Resource Allocation, set up in 1978 to consider detailed improvements to the method of the Resources Allocation Working Party (RAWP), has recommended several changes that have already been used in determining this year's revenue allocations (*Report of the Advisory Group on Resource Allocation*, DHSS, 1970). The group, which has now been disbanded, suggested that regional targets should take account of the greater labour costs in London, which are not fully covered by London weighting adjustments; that cross-boundary flows for four multi-regional specialties—paediatric haemophilia, spinal injuries, management of chorion-carcinoma, and services of the National Poisons Unit—should be costed to reflect average costs in those specialties; and that the service increment for teaching medical students should be calculated as before but with information from the new medical schools and the greater number of hospitals now contributing to clinical teaching taken into account. Commenting that decisions on the pace of change towards regional targets would have a greater effect in the short term on annual allocations than any modifications to the formula, the advisory group also pointed out that concern about the fairness of the method of allocation is greater when resources show only low growth, and it endorsed the need for further research to improve the RAWP formula.

Service doctors' pay increased

The Review Body on Armed Forces Pay has recommended an average increase of 18.8% for service medical officers, though some ranks will receive bigger percentage increases than others. When publishing the Review Body's *Supplement to Ninth Report 1980* on 9 July (Cmnd 7956, £2), the Government announced its acceptance of the recommendations. (The full updating of service doctors' salaries—in line with the three-stage updating exercise completed in April 1980 for NHS doctors—occurred in 1979 so the service doctors' 1980 award is comparable to the NHS doctors' 1980 cost-of-living increase of 18.7%). The Review Body concluded that the average net remuneration of NHS GPs remained the best analogue for determining service doctors' salaries, but the report concedes the point made in the BMA's evidence that the analogue should also include the average net income from contraceptive service fees and from hospital and other official sources, though income from private practice, also requested by the BMA, has been excluded. The new scales (including, where applicable, an enhanced X factor, a payment recognising the exigencies of service life) are backdated to 1 April, and range from £4450 for a cadet to £21 000 for a brigadier and £21 500 for a major general (or equivalent ranks). A preregistration service doctor will receive £8143 and on appointment a captain's salary will be £11 359, a major's £13 855, a lieutenant colonel's £17 038, and a colonel's £19 330, while after four years in post a colonel will receive £20 582. Additional payments for consultants—but not those for specialists or senior specialists—have been increased for the first time since 1975; a

consultant will now receive £1600 a year on appointment, £1900 after five years, and £2400 after 10 years. Diploma pay has been abolished and superannuation contributions have been reduced to make the pension arrangements for medical and combatant officers comparable.

President of the Royal College of Surgeons of England

Sir Alan Parks, FRCS, was elected president of the Royal College of Surgeons of England at a meeting of the council on 10 July.

Institute of Industrial and Environmental Health and Safety

The Institute of Industrial and Environmental Health and Safety, a new centre for research, advice and training, and trouble shooting in problems of health and safety, was formally opened at the University of Surrey by Lord Robens on 4 July. The university decided in October 1978 to establish the institute after discussions with industry, government agencies, research establishments, trade unions, and hospitals. Directed by Professor James Bridges, holder of the only chair in toxicology in Britain, the institute has three main functions: to carry out research on aspects of health and safety which have a high priority and in which the university has appropriate skills; to provide an information, advisory, and investigative service for individuals and organisations; and to be a training centre for those with a special responsibility for health and safety. There are five research units, most of which have developed from university research teams, and an occupational health and hygiene service. Each unit aims to finance itself so far as possible from income derived from contracts, grants, and the running of short courses. Further information from Mr Michael Bradbeer, Public Relations Officer, University of Surrey, Guildford, Surrey GU2 5XH (0483 71281).

Formation of aeromedical group

The Council of the Royal Aeronautical Society has given its assent to the formation of an aeromedical group under the aegis of the society; the aims of the group will be to promote awareness of the role of human factors in aerospace; to improve liaison between practitioners of aerospace medicine and workers in other aeronautical disciplines; and to provide a forum for meetings and discussions on topics in aerospace medicine.

Suggestions, promises of support, and requests for further information will be welcomed, and should be addressed to Air Commodore P Howard, Commandant, RAF Institute of Aviation Medicine, Farnborough, Hants.

Nestlé nutrition research grants

Applications are invited from research workers in any country of the world in

English, French, or Spanish for research grants to support the search for improved scientific knowledge of infant nutrition and development, including fetal development, outcome of pregnancy, maintenance of lactation, the problems of weaning, and exposure to infection. Details and application forms from Professor J C Waterlow, Department of Human Nutrition, London School of Hygiene and Tropical Medicine, Keppel Street, (Gower Street) London WC1E 7HT.

Migraine and other headaches

The latest Family Doctor booklet is *Migraine and Other Headaches* by Dr Marcia Wilkinson. In addition to a detailed discussion of migraine there are sections on tension headache, cluster headache, headache in children, and other varieties of headache. The booklet ends with questions and answers and a note on migraine clinics. It may be obtained from chemists (price 40p) or direct from Family Doctor Publications, BMA House, Tavistock Square, London WC1H 9JP (price 52p including postage and packing).

Kidney transplants

The number of kidney transplants undertaken in the United Kingdom and Republic of Ireland for the month ending 30 June was 79, and the number of potential recipients on file was 1747. Corresponding figures for the previous month were 74 and 1749.

Information, please

The Portsmouth Health District has had 17 cases of adenocarcinoma of the kidney in the first five months of 1980 (compared with an annual mean of 6.8 and a maximum of 10 cases over the last 10 years); and Mr J Vinnicombe, FRCS, and his colleagues (Department of Urology, St Mary's Hospital, Portsmouth PO3 6AD) would like to hear from any other units with such an increase.

Dr I A McN Dow (Hillholme, Grange Street, St Albans, Herts AL3 5NF) would like to hear from anyone who has come across (or can explain) an apparently beneficial effect of mianserin on aphthous ulcers.

Mr Robert L Weber (c/o Neville Hankins, Institute of Physics, Publications Division, Techno House, Redcliffe Way, Bristol BS1 6NX) would welcome contributions of humour in any field of science, historical or contemporary, especially items embodying some historical or other insight. Sources should be fully identified.

Mrs Ann Synge (19 Meadow Rise Road, Norwich, Norfolk) is making a study of the availability of suitable part-time work for women graduates and their demand for such work, sponsored by the East Anglian Region of the British Federation of University Women. She would like to hear from any women graduates under 50 who would be prepared to fill in a brief questionnaire, whether or not they have ever contemplated working part-time.

Another 10 000 metre run for doctors

A 10 000 metre run for doctors will be held at Dunfermline College, Edinburgh, on 4 October. Any doctor wishing to take part should write to Dr B Covell, 61 Falcon Avenue, Edinburgh EH10 4AN, enclosing a stamped addressed envelope.

ECFMG examination

The ECFMG examination on Wednesday 23 July will now take place at the Royal Horticultural Society Hill, Vincent Square, London SW1, instead of Alexandra Palace.

COMING EVENTS

Boerhaave Committee for Postgraduate Medical Education—Course on "Systemic vasculitis," 4-5 September, Leiden. Details from the committee, Academisch Ziekenhuis, Rijsburgerweg 10, 2333 AA Leiden, Netherlands.

First International Symposium on Recent Advances in Prenatal Diagnosis—15-16 September, Bologna. Details from the organising secretariat, Assistenza Congressi, Via P. Palagi 21, 40138 Bologna, Italy.

Schizophrenia Association of Great Britain—Conference "Biological aspects of schizophrenia and addiction," 24-25 September, London. Details from Mrs Gwynneth Hemmings, Tyr Twr, Llanfair Hall, Caernarfon LL55 1TT. (Tel 0248 670379.)

International Society for Aerosols in Medicine—1st Australian symposium, 25-26 September, Brisbane. Details from the secretariat of the symposium, PO Box 234, North Adelaide, South Australia 5006.

"Calcium antagonism in cardiovascular therapy—experiences with verapamil"—International symposium, 2-4 October, Florence. Details from the organising secretariat, AISC, Via G B Martini 6, Rome, Italy.

Northwick Park lectures in clinical science—Details and copies of the third series of lectures, 15 October 1980—24 June 1981, are available from Dr C C Booth, Clinical Research Centre, Watford Road, Harrow, Middlesex HA1 3UJ. Details of individual lectures will be published in our "Societies and lectures" column.

"Brief therapy—tactics for change"—Workshop, 24-25 October, Bristol. Details from John Carpenter, University of Bristol, Department of Social Work, 11 Priory Road, Bristol BS8 1TU.

Royal Society for the Prevention of Accidents—National home safety symposium, 12-13 November, Cheltenham. Details from Home and Leisure Safety Division, RoSPA, Cannon House, Priory Queensway, Birmingham B4 6BS. (Tel 021 233 2461.)

Institute of Food Science and Technology—Details and copies of the July to October consolidated programme of the participating bodies are available from Mr D F Johnson, 10 School Lane, Broomfield, Chelmsford, Essex. (Tel 0245 440697.)

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.

Monday, 21 July

INSTITUTE OF OBSTETRICS AND GYNAECOLOGY—At Queen Charlotte's Hospital, 12.30 pm, Dr C Ellis: A case of severe hypertension in pregnancy treated with prostacyclins.

Thursday, 24 July

INSTITUTE OF OBSTETRICS AND GYNAECOLOGY—At Queen Charlotte's Hospital, 12.15 pm, Dr Elizabeth Letsky: Thalassaemia, α and β .

Thursday, 24 July

ST MARY'S HOSPITAL MEDICAL SCHOOL—5.15 pm, Mrs Renée Short: Reducing perinatal mortality in Britain.

UNIVERSITIES AND COLLEGES**ABERDEEN**

MD—W G L Allan, Linda J Holloway, I D Levack.

LIVERPOOL

Appointment—Mr M F Ramadan (senior lecturer, clinical, in otorhinolaryngology).

ROYAL COLLEGE OF SURGEONS OF ENGLAND

On 3 July, as a result of the postal ballot of fellows, Professor A J Harding Rains (1062 votes) was re-elected, and Mr W J W Sharrard (536 votes), and Mr R T Turner Warwick (513 votes) were elected as members of the council of the college.

In all 3346 fellows voted, and in addition 14 votes were found to be invalid.

ROYAL COLLEGE OF GENERAL PRACTITIONERS

The following were successful in the membership examination in May/July—Pamela Abernethy, A Adam, Vivien P Addis, K Alexander, A R Ali, Janet M Andrews, G E Aram, J H Arkle, B D J Armstrong, J M McK Arthur, Sheena M Ashby, H M Ashworth, G D Auckland, K Baker, R H Baker, S P Baldwin, *A Ballantyne, A V Balmer, P Barlow, S G A Bartlett, Anne L H Baruch, Ruth B Bastable, P Bates, Jacqueline M Bayer, M M Bayer, C M Bedford-Turner, Christina A Bennett, Julia M Bennett, P E Bennett, Wirinder Bhatiani, D C B Bissett, M J Bizon, M C Bloomfield, S B Bolel, Barbara A Bouch, J V A Boulton, R G Bowen, Susan M Bower, C T Boyce, Elizabeth A Braidwood, Angela M Bramley, D J Brown, D R Brown, S D Browne, J G S Buchanan, D B Bullock, Patricia L Burgess, M A Cadogan, A Cahill, D A Calnan, I R Cardy, D H Carman, T A H Carter, R T Casson, Mary E Cates, R J S Cave, J S Chalmers, C J Champain, A C Chapman, Susan C Chester, D L Child, Anne M Chowaniec, R F Ciezak, M G G Clayton, R D Colman, A D Coombe, R A Copeman, Karin M Corrado, K J Cosgrove, J P Cox, Helen M Coyne, P M Coyne, J R Craven, D L A Crick, G A C Crory, A M Cunningham, J G Curran, Margaret C D'Silva, M E Davidson, D H Davies, Anne de Gay, N R de Gay, S P Deacon, A Demetriou, P R Densham, Rosemary H Dewar, G Dickinson, F Difford, Resham Diu, Lesley J Dorey, Claudia C Dornan, J D MacD Douglas, A F Dove, N R Drane, B A Drepaull, A D G Duncan, Josephine Dunlop, R J Dunn, Airlie L McD B Dyson, C R E Edgar, Margaret C Eisner, R J Elgar, P J Ellis, G Evans, K M Evans, T G J R Evans, T W Evans, W M I Evans, K T J Farley, C D Farrar, J C Felton, Diana E J Ferguson, Vasco Fernandes, D I Field, J P S Fielder, W J Fielding, B R Finlay, P H Fitton, R P Fitton, J D Fletcher, J W Formby, D S Forsyth, Teresa A Foster, G E Foulds, R D Fouracre, R W Fox, W R Fraser, A N Frazer, A G B Frith, I C Gadsby, Anna-maria Gallagher, Susan McL Galloway, J A McV Garner, Carol A Garrett, T Garrett, T G Gibbs, Jennifer M Gill, J R Gillespie, R Gilmore, D 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FACULTY OF ANAESTHETISTS, ROYAL COLLEGE OF SURGEONS OF ENGLAND

At a meeting of the Board of Faculty held on 18 June, Dr G H Hulands was appointed deputy regional educational adviser for the North-west Thames Region.

Dr W Fitch, Professor H Schnieder, Dr C R Dundas, Professor M K Sykes, and Dr D C White were elected new examiners for the primary FFRCS examination, and Professor A P Adams, Dr A G Macdonald, Dr R J Vale, Dr D H Short, and Dr E B Raftery were elected new examiners for the final FFRCS. Dr H T Davenport was elected new examiner for the Diploma in Anaesthetics.

The Nuffield prize was awarded to Dr S J Keens.

CONSULTANT APPOINTMENTS

HAMPSHIRE AHA—Dr G J Thorpe (continuing care).

NATIONAL HOSPITALS FOR NERVOUS DISEASES—Dr Linda M Luxon (audiological medicine, from 1 October 1980).

WESSEX RHA—Dr R G Potter (child psychiatry and mental handicap).

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