

with busy junior medical staff than with nurses, who have formal training and operate a double checking system. Administration of intravenous drugs by nurses not only reduces the workload of senior house officers but should also improve the quality of care.

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## Protection of the individual in biomedical research in Africa

EDITOR,—Progress in biomedical science is often due to more and more complex experimentation on humans. The limits of this research need to be defined in terms of science and ethics. Biomedical research in African countries, as in many developing countries, is often carried out without a legal basis: in many African countries there is no legislation on scientific research. Western countries have done, or are doing, their best to adopt legislation about scientific research practice that respects the individual<sup>1,2</sup>; can Africa stay away from these fundamental changes?

Each African country should have a national ethics committee, and at the top there should be a federal bureau of inter-African ethics and of protection of the individual along the lines of the Organisation for African Unity; this federal bureau should work in close collaboration with the regional bureau of the World Health Organisation. The advantages for the African countries would be considerable: common aims, exchanges of materials and research workers, interchanges of ideas, and stimulation of research in general. Foreign partners wanting to make biomedical assays in, or to conduct experiments on, humans in Africa would have to seek authorisation from the inter-African bureau before submitting these projects to national African ethics committees. These African countries would be the copromoters of the biomedical research carried out there. For big projects the WHO, with the agreement of the inter-African bureau, should stand as copromoter and assume its obligations in these often impoverished African countries. Foreign investigators should obtain in their home countries the authorisation necessary to carry out such biomedical research in foreign countries.

Although many patients in some African countries may not have the educational background needed to be really informed, informed consent remains necessary. Investigators should adapt to cultural and educational realities in these countries. For biomedical research to be better organised in African countries we need to foster openness and improve ethical standards to better protect the individual.

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## Effect of albumin on diuretic treatment in the nephrotic syndrome

EDITOR,—Fehmi Akcicek and colleagues have addressed the question whether albumin has an additive effect on the diuretic treatment of patients with the nephrotic syndrome.<sup>1</sup> We have published similar results, but besides plasma volume expansion we also studied the effect of different plasma and urinary albumin concentrations.<sup>2</sup> The same plasma volume expansion of about 20% was achieved by infusing either 40 g of albumin or 36 g of dextran 70 (Macrodex, Pharmacia AB, Sweden) in five nephrotic patients on separate study days. The plasma albumin concentration increased from 28 g/l to 33 g/l after albumin and decreased to 23 g/l after dextran. Urinary albumin excretion was unchanged after dextran but increased by 70% from 3.9 to 6.6 g/24 h after albumin. Dextran caused a considerable increase and albumin a small increase in renal blood flow (para-aminohippuric acid clearance). The glomerular filtration rate (inulin clearance) did not change after albumin or dextran infusions.

Both modes of volume expansion caused a moderate increase in the rate of urinary flow but not in the rate of excretion of sodium. The renal sensitivity to frusemide was the same after dextran and albumin. Thus, even within the pathophysiological range of urinary albumin excretion, frusemide binding to urinary albumin does not seem to impair its diuretic effect.

After 24 hours the plasma volume and plasma albumin concentration had almost returned to initial values with all protocols. Moreover, rebound effects of frusemide were seen four to 20 hours after the dose, irrespective of plasma volume expansion. Thus the additive (24 hour) diuretic and natriuretic effects of plasma volume expansion and increased plasma albumin concentration to an intravenous injection of 40 mg of frusemide in nephrotic patients were small and short lasting and thus of negligible clinical importance.

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## Suppression of medical conditions by Cushing's syndrome

EDITOR,—Alan Steuer and colleagues describe the unusual occurrence of a medical condition (sarcoidosis) that was suppressible by steroids and presented shortly after surgical treatment of Cushing's syndrome.<sup>1</sup> The corollary of this—namely, that a pre-existing medical condition may be suppressed by the onset of Cushing's syndrome,

reflecting the increased output of corticosteroids—is also true and may help diagnosis.

The case of a 66 year old man who presented with diarrhoea and had been found to have advanced medullary carcinoma of the thyroid gland 11 years earlier illustrates this point. At recent review he complained of polydipsia and polyuria. Several weeks before he had noted that his persistent psoriasis had entirely resolved. (It had been troublesome for over 50 years and had been only partially controlled by dithranol and beta-methasone preparations. Since 1976 it had been associated with arthropathy, for which he required intermittent non-steroidal anti-inflammatory drugs.) Further questioning and examination elicited fatigue with proximal myopathy and a plethoric face but no excess pigmentation. Blood pressure was 120/70 mmHg. Investigations confirmed diabetes mellitus associated with Cushing's syndrome (potassium concentration 2.7 mmol/l, bicarbonate >40 mmol/l, serum cortisol persistently >1660 nmol/l, urinary free cortisol 3120 nmol/24 h, and adrenocorticotropic hormone 267-316 ng/l (normal 7-51 ng/l)). Carcino-embryonic antigen and calcitonin concentrations were appreciably increased. His Cushing's syndrome responded to metyrapone. He became increasingly pigmented and continued chemotherapy with cisplatin and fluorouracil for his metastatic medullary carcinoma of the thyroid, which was the presumed source of his adrenocorticotropic hormone.

The onset of this patient's Cushing's syndrome was clearly rapid; he had not developed some of the more typical signs of the condition, such as thin skin and easy bruising, and had not developed excess pigmentation. Despite his metabolic upset and symptoms he considered the clearing of his psoriasis to have been an early and prominent feature. We suggest that it may be worth actively seeking such information from patients with suspected Cushing's syndrome, particularly when the diagnosis does not seem clinically obvious, in the hope of identifying the condition at an early stage. The suppression of pre-existing medical conditions may help to identify the time of onset of hypersecretion of glucocorticoid.

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## Lord Moran's prescriptions for Churchill

EDITOR,—In 1992 when my biography of Lord Moran was published, I divulged no information from medical records that had not already been publicly mentioned.<sup>1</sup> In describing Moran's management of Churchill's illnesses the constituents of pills that were prescribed—which various writers, including Churchill himself, referred to by nicknames such as "Morans" and "minors"—remained unidentified.

Some of the drugs have become of interest to medical historians, especially in light of recent advances in knowledge of the treatment of the atherosclerotic disease that would have been the basis for Churchill's repeated cerebrovascular episodes. I therefore sought permission from the present Lord Moran, who owns his father's records, and from Sir Winston Churchill's surviving child, Lady Soames, to identify the various medications. Both have kindly consented.

From 1940 onwards, Moran prescribed "reds" to promote sleep. "Reds" were quinalbarbitone

tablets (Seconal 100 mg), which were favoured hypnotics in those days. Apart from these, Moran believed that he had a rather negative reputation with Churchill as what he called "a vendor of nostrums" until 1953. He was indeed a most reluctant prescriber. But when Churchill was troubled by muzy feelings in the head after his first major stroke in 1953, Moran prescribed a pill that Churchill called a "Moran" and from which he claimed great benefit. Moran gave his patient a test dose of this pill a few days before Churchill's important speech at the Conservative party conference at Margate on 10 October 1953. Although there is no clear record in Moran's medical notes, his use of a preliminary test dose and Churchill's comments on the pill's effects indicate that a "Moran" would have contained amphetamine. This was recognised as a valuable drug in the context in which he used it; a preliminary trial dose was the rule because of the variation between individuals in their reactions to it.

From the 1953 stroke onwards, Moran tailored his administration of drugs to specific situations. His armamentarium consisted of "majors," which were Drinamyl tablets containing d-amphetamine sulphate 5 mg and amylobarbitone 32 mg; "minors," which were Edrisal tablets containing aspirin 160 mg, phenacetin 160 mg, and amphetamine sulphate 2.5 mg. This combination, colloquially known as APA, was quite widely used for headaches as an alternative to APC (aspirin, phenacetin, and caffeine); "baby capsules," which contained a small dose of Seconal 15 mg; and "midget capsules," which contained Seconal 7.5 mg.

I doubt if those familiar with treating the symptoms of cerebrovascular disease in those days would do other than applaud Moran's use of amphetamine and particularly the way in which he fine tuned the dose. He did not live long enough to see the small doses of aspirin, of the order contained in his "minors," become standard treatment for the atherosclerotic disease from which his patient suffered and whose life he may unwittingly have prolonged.

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1 Lovell R. *Churchill's doctor: a biography of Lord Moran*. London: Royal Society of Medicine, 1992.

## Childhood thyroid cancer since accident at Chernobyl

EDITOR,—The letter from representatives of the World Health Organisation and the three countries most affected by the accident at Chernobyl—Belarus, Russia, and the Ukraine—draws attention to the increasing number of thyroid tumours in children exposed to fallout from the accident.<sup>1</sup> We endorse the comment that an international response to this unprecedented event is needed. Different countries have already reacted, and at least eight international actions on this issue are currently going on around the world. I wish to give some impression of the many international and bilateral efforts to provide medical help for the people affected by the Chernobyl accident, in addition to the efforts made by the WHO.<sup>1</sup>

In the first place, the authorities in Belarus, the Ukraine, and Russia have mounted a tremendous effort to monitor the health of the exposed populations and to provide, within the limited means at their disposal, as good a treatment as possible for the health effects arising in that population. International agencies, including Unesco, the International Atomic Energy Agency, the Food and Agriculture Organisation, the International

Red Cross, and the Commission of the European Communities, are all deeply involved in projects to provide help to the affected populations in the three republics. In addition, there are many bilateral activities between the three republics and individual nations or charitable foundations, including Japan and the Sasakawa Foundation, the United States, France, Germany, the Netherlands, Finland, and Switzerland.

The European Commission is supporting a wide range of projects related to Chernobyl. These include studies of the contamination of soil and water by radioactive isotopes, health effects, management of risk, and dose reconstruction in a series of collaborative research projects in which groups of community scientists work with scientists from the three republics.

The most important health effect so far is the increase in papillary thyroid cancer in children, and the European Commission has devoted funds to two collaborative projects addressing this problem. One project deals with the characterisation of the tumours at the pathological and molecular biological levels and the other is concerned with optimising the treatment of these childhood cancers. In this respect, and in response to recommendations made by a panel of thyroid experts,<sup>2</sup> the European Commission's technical assistance programme to the Commonwealth of Independent States is providing a comprehensive training programme for medical specialists and technicians from the three republics, and the European Community Humanitarian Office is providing specialised equipment and drugs for diagnosing and treating thyroid cancers. Our approach has been to encourage collaboration between doctors and scientists from the European Union and the countries of the Commonwealth of Independent States and to encourage exchange of information and cooperation among the various national and international agencies also studying this problem.

We wish to reiterate the comment, made in our expert panel's report<sup>2</sup> on the consequences of the accident, that the number of cases of childhood thyroid cancer in southern Belarus and northern Ukraine has increased substantially since the accident; that it is not possible to predict the future incidence of thyroid cancer; and that international cooperation in both humanitarian assistance and the study of the consequences needs to be co-ordinated.

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## Unified training grade

EDITOR,—Trevor J Bayley states that the key to the success of the unified training grade and the Calman report is a far greater increase in the number of consultants than is presently planned.<sup>1</sup> The Calman recommendations are to be implemented by the end of this year, clearly with no concomitant expansion in the number of consultants. This means that fewer training grades will be available. On transition, incumbent senior registrars will automatically fill such posts, followed by career registrars, who have two years to gain a

training number. What then of present career senior house officers? Presumably a minimum wait of two years for promotion will ensue in most specialties—a horrific prospect for senior house officers who have obtained their fellowship and membership and are eager to start higher specialist training.

A better way of implementing the Calman reforms would be to set in motion a plan to expand the numbers of consultants over many years before introducing the unified training grade. This notwithstanding, the only hope for the Calman reforms to be a true success is for purchasers to insist that trusts increase their consultant workforce. Should this not happen rapidly, the outlook for the "lost tribes" of senior house officers during the transition period will at best be gloomy.

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## China aims to improve health of newborn by law

EDITOR,—Being a Tibetan woman with relatives in Tibet who are subject to China's population programme, I wish to respond to certain points in Richard Tomlinson's article on China's aims to improve the health of newborn infants by law.<sup>1</sup> As evidenced in Aird's analysis *Slaughter of the Innocents*<sup>2</sup> and reports such as *Children of Despair*,<sup>3</sup> coercion within China's population programme is not, as Tomlinson implies, simply a matter of isolated abuse which the state family planning authorities and law strive to stop. Official Chinese sources and publications clearly show that coercion (including forced sterilisations and abortions) forms a central strand of China's population programme and has the approval of the Chinese government. What other interpretation can be made of the following remarks by Mr Chen Bangzhu, the governor of Hunan province: "In the autumn family planning drive, urban and rural areas must closely cooperate with one another and must comb every household for unscheduled pregnancies, for which remedial measures should be taken" (Human People's Broadcasting Station, Sept 14 1992).

There are many more such examples, including evidence of eugenic and racist attitudes. Deng Bihai in *China's Population News* (Dec 22 1989)—which, like other publications, can exist only with the approval of the authorities—commented that among China's so called national minorities it is more common for such people to be "mentally retarded, short of stature, dwarfs, or insane." Perhaps the Chinese health minister quoted in Tomlinson's article would argue that these remarks too can be explained as poor translations.

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## Correction

### Injury to child pedestrians

Owing to a typesetting error the references given at the end of the final sentence of this letter by Hamid Soori and R S Bhopal are incorrect (20 May, p 1334). The correct references are 2 and 4.