pointed out that 80% of clerical and secretarial staff will soon be female. The NHS is the largest employer in the UK and by 1993 the required share of all suitably qualified women will be 62% of its employees. At a time when fewer young women are entering the service efforts must be made to bring in those aged over 50 years.

The speaker then dealt with the numerous hazards of hospitals: infections, injuries and environmental hazards.

These comprise chemical hazards such as drugs, solvents, disinfectants, mercury, chrome and X-ray developer. Anaesthetic gases at concentrations commonly found in operating theatres are not reproductive toxins. Allergic and irritant dermatitis are frequent problems. Solvents such as chloroethylenes for dry cleaning, formaldehyde in pathology, ethylene oxide for disinfection and methyl methacrylate for dental and orthopaedic use are among the commonest hazards.

Among physical hazards heat, noise, illumination and humidity have to be monitored. Dust from cotton etc. in laundries, ionizing radiation during angiograms and lasers are the commonest physical hazards.

Biological hazards comprise handling blood, cross infection, especially hepatitis (against which all staff at risk should be vaccinated), tuberculosis and gastroenteritis, all of which require monitoring.

Ergonomic problems are still present in many hospitals, where unnecessary lifting prevails and prevention of repetitive strains is required by means of suitable workplace and tool design.

Shift work and irregular hours are a perennial problem because of their effects on reproductive outcome[1,2] and of disruption of personal lifestyles. Psychosocial hazards include violence against staff, stress and alcohol, and as the first speaker emphasized, women will in future require more suitable shift patterns, flexi-time, creches and adequate transport facilities.

A recent epidemiological survey[3] of the health of health service employees looked mainly at male employees, showing an increasing difference in mortality between social class I and IV between 1970 and 1980 and between health workers and the general population, and this is undoubtedly even more true of women health workers.

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Letters to the Editor

Preference is given to letters commenting on contributions published recently in the JRSM. *They should not exceed 300 words and should be typed double-spaced.*

Communicating information to patients

Your recent series of papers (May 1990 *JRSM* p 292) will be of great interest to all those in the practice of clinical medicine. One area which was not discussed was that of the communication of mis-information to our patients, which sadly often occurs, especially in the lay press.

With this in mind and due to the great media interest in assisted conception, I established a study, in an infertility clinic, to assess the patients' anticipation of their chances of success by assisted conception. A questionnaire was used in order to obtain this information. The study was performed in early 1989.

Eighty-seven women completed the questionnaire; 63 had primary and 24 had secondary infertility. The mean duration of infertility was 5.6 years (range 1-12 years). Seventy-six (87%) respondents stated that their main method of obtaining information about infertility was from the national newspapers and magazines. When asked about the different forms of assisted conception all had heard of IVF, 52 (60%) had heard of artificial insemination and 31 (36%) had heard of gamete intrafallopian transfer.

Seventy-two (84%) believed IVF was readily available on the NHS; the truth is that it is only available on the NHS in two clinics in the UK. The most disturbing result was the patients' anticipation of their chance of conceiving by IVF. Thirteen (15%) believed that there was a 75% or more chance of conceiving at each IVF attempt and the average anticipated chance of success reported by the respondents was 58% (range 10-100%). Only 12 (14%) gave a success rate of less than 20% which is near the true figure reported by the Voluntary Licensing Authority[1] of a crude pregnancy rate in 1987 of 12.5% (more up-to-date results were not available at the time of the study).

I believe that this study indicates that there is a lack of information being provided to the patients and puts a question mark over the accuracy of some of the articles published in the lay press.

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Reference

1 The Fourth Report of the Voluntary Licensing Authority for Human In Vitro Fertilisation and Embryology, 1989

Pyrimethamine-sulphadoxine: how great the risk?

Phillips-Howard and West (February 1990 *JRSM*, p 82) recently reported on adverse events (AE) with antimalarials in the UK. Criteria to assess causal relationship were not stated; eg, abortion or chestpain

are AEs not usually ascribed to sulphadoxine-pyrimethamine (SP)[1]. Concomitant drugs were mentioned only for cutaneous AEs with SP: 5 of 9 such patients had taken chloroquine and SP concomitantly, an antagonistic[2] and possibly unsafe[3] association. SP is used for prophylaxis and treatment of malaria and other protozoal infections[4-7]. Denominator estimates should differentiate these. In 1980-87, 1130 AIDS cases were reported in England and Wales[8]. Assuming that 25% of these patients received SP at one time or another and that 15% experienced AEs necessitating ending treatment[9], these AIDS cases alone could account for all 41 serious AEs with SP gathered by the authors.

With prescriptions as denominator, the rate for all serious SP AEs was $48/10^5$; for cutaneous AEs alone it was $20/10^5$. Drug sales as denominator produced 3.7 times lower rates, but they were discarded because drugs sold outside the UK could unduly inflate this denominator. Prescriptions denominators suffer from similar or more severe weaknesses. Prescribed drugs may never be taken. Antimalarials can be obtained abroad. About 30% of UK travellers seem not to seek advice on malaria before departure[10]. Applied to 1.25 million visits to malarious areas in 1986[11], this means that $\geq 375\,000$ travellers leave UK each year without a prescribed antimalarial. The authors reported on average 16.4 SP tablets per prescription. For an average exposure of one month[11], 11 tablets are adequate. One therefore must assume that often one prescription served more than one traveller.

The reported rate of $48/10^5$ could represent the upper end incidence estimate for all uses of SP and all types of AEs. Taking into consideration the alternatives discussed, the authors might arrive at an incidence of $1/10^5$ malaria prophylactic users, or less, an estimate which would correspond to Swiss travellers[12].

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The greenhouse effect and human population

In our paper (Banks & Vernon, May 1990 *JRSM*, p 284) the industrial carbon dioxide production has been underestimated by a factor of 44/12 since the data from Oak Ridge, in graphs titled 'carbon dioxide emissions' in fact referred to tonnes of carbon oxidised rather than tonnes of carbon dioxide produced.

The authors regret the error but the point made is still valid. It is factors likely to show the biggest predicted change that may upset an otherwise balanced system. The prediction of the Population Crisis Committee of the United Nations is that in the absence of adoption of massive family planning policies, the human population will increase 2.5 fold by the end of the next century. On the reduced figures, the amount of carbon dioxide produced at present by humans breathing is seriously underestimated at 7.5% of all non-biological production in 1987. The effect of nearly tripling the human population could certainly be catastrophic in so far as total carbon dioxide emissions contribute to the greenhouse effect.

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The editorial by Banks and Vernon (May 1990 *JRSM*, p 284) made a striking comparison between the amount of carbon dioxide produced metabolically by humans and that produced by the burning of fossil fuels, but I question its relevance to the greehouse effect.

Ultimately the carbon dioxide produced metabolically is derived from vegetation, and this is in turn derived from atmospheric carbon dioxide by means of photosynthesis: this cycle does not involve the addition of any carbon to that already in circulation, alternately as biomass and as atmospheric carbon dioxide. For food crops the cycle is completed in no more than a year or so, and there is no question of a build-up of carbon dioxide such as Banks and Vernon suggest. Build-up can arise only as a result of the injection of 'new' carbon, which can come only from what is locked up as fossil fuel. As far as I am aware the only attempt to use fossil fuel to make biomass has been the experimental production of animal feed from mineral oil, but the experiment was abandoned when the sudden rise of oil prices in the early 1970s made it obvious that it would not be economic.

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