for years developed their technical skills, usually far advanced in comparison with those of their medical and surgical contemporaries, by using the "phantom head." The simulations were good because they had real teeth.

Of course surgeons will always require to gain the "ultimate" experience in the operating theatre. But the notion that simulators have a minimal role flies in the face of the existing facts, let alone those yet to be gathered.

NEIL WATSON

Triangle Research and Development Corporation, Research Triangle Park, North Carolina, United States

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## Screening the elderly

SIR, -I would like to take issue with Dr Charles B Freer's contention that the high frequency of contact between general practitioners and their older patients means that much of the information required by annual screening of patients aged 75 or more under the new contract will already be known.1

In a study of a random sample of people aged 65 and over C Smith and I found that although our information from general practitioners was biased towards the patients they knew relatively well, the doctors did not have any record of a quarter of the prescribed medicines that their patients in this age range were taking, and a fifth of the hypnotic drugs, sedatives, and anxiolytic drugs prescribed fell into this category.<sup>2</sup> Neither doctors' records nor their memories contained accessible information about whether a fifth of their patients aged 65 or more lived alone or with others, and there were apparent errors in their recall or their notes for a further 8%.

These data suggest that reviewing the medication and social circumstances of elderly people is not done adequately at the moment. To insist on it being done annually for all patients aged 75 or more, however, may well be a wasteful use of limited resources. A more sensible strategy might be an initial screening for all people aged 75 or more with a follow up at different intervals related to various at risk categories. For instance, people aged 85 or more and those with certain chronic conditions or disabilities who live alone might well be reviewed annually. If the mechanism of an enhanced capitation fee is to be used to try to improve the standards of the less good doctors then this could be related to both the identification and regular review of defined at risk categories of patients.

ANN CARTWRIGHT

Institute of Social Studies in Medical Care, London NW3 2SB

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## Cervical cancers diagnosed after negative results on cervical cytology

SIR,-Dr Heather Mitchell and colleagues assessed the magnitude of the problem of interval cancers and their association with difficulties in sampling or errors in reporting.1 One of the main problems in cervical screening in the past decade has been the increasing rates of referral of women for colposcopy. This has not only caused resource problems for colposcopy but has also caused many women to become extremely anxious because they have had a positive result of a smear test, with the anxiety and depression often aggravated by being told that they have an infection that is in the minds of many people akin to a sexually transmitted disease. This trend is the result of public, media, and political concern about "missed" cancers, but all screening programmes must have "missed" cancers. If they do not then either no steps have been taken to identify interval cancers or they are running with an unacceptably high rate of false positive results; it is important to remember that a 1% change in the rate of referral for colposcopy will affect about 40 000 women each year.

Moves are now being taken to reverse this trend-to increase the specificity of the test without diminishing its sensitivity-through the National Co-ordinating Network, a group consisting of policy makers, all the providers, the royal colleges, research workers, and women's organisations, which has now received funding of £95 000 each year for three years from the Department of Health. The aim of this group is to improve the quality of cervical screening, in this instance by educating the public about the need to accept some interval cancers to minimise the adverse effects of screening.

The figures from Australia in the article by Dr Mitchell and colleagues could be interpreted to suggest that the number of interval cancers could be significantly reduced; but this is not the case, at least not without an unacceptable increase in the number of false positive results. It would have been helpful had the results been presented in the form of receiver operator characteristic curves, but the data that are provided show that the negative predictive value of a negative test result is very high. Thus the threshold for referral should not be changed on the basis of this paper.

J A MUIR GRAY

National Cervical Screening Programme Oxfordshire Department of Public Health, Radcliffe Infirmary, Oxford OX2 6HE

1 Mitchell H, Medley G, Giles G. Cervical cancers diagnosed after negative results on cervical cytology: perspective in the 1980s. Br Med J 1990;300:1622-6. (23 June.)

## Plasma concentrations of tryptophan and dieting

SIR, - The results of the study by Dr G M Goodwin and colleagues1 support the hypothesis that brain serotonin and its precursor, the amino acid tryptophan, are important in the regulation of mood and food intake.<sup>2</sup> Although we doubt whether the peripheral blood concentration of tryptophan is a reliable indicator of its concentration in the brain, we were impressed by their observation that a low carbohydrate, high protein diet caused considerable irritability and sleep disturbances. They rightly speculated that supplementation with tryptophan might improve these behavioural changes but regretted that this could not be done owing to the recent reports of a possible association between consumption of tryptophan and the eosinophilia-myalgia syndrome.3 We wish to report the results of such a study.

During 1989 we conducted a placebo controlled clinical trial of tryptophan. The study was based on the hypothesis that brain serotonin is involved in the disturbed food intake and mood of women with the premenstrual syndrome<sup>+5</sup> and that increased intake of the serotonin precursor might effectively relieve the dysphoric and appetitive symptoms. Sixteen healthy women were admitted

to the study after completing a questionnaire on menstrual distress and a diary of their menstrual cycle, indicating any severe premenstrual symptoms. All subjects received 1 g of tryptophan (G Rodon, New York) or identical placebo pills twice daily. The drug or placebo was taken every alternate day for 10 days premenstrually for two consecutive menstrual cycles. Changes in mood and food intake associated with the menstrual cycle were evaluated daily. Anxiety, depression, and irritability scores were lower in those receiving tryptophan (mean (SEM) value 161.98 (66.08)) than in those receiving placebo (258.85 (62.45);  $p \leq 0.05$ ). The food craving scores were also lower in those receiving tryptophan than in those receiving placebo (73.96 (24.79) v 84.90 (34.21), respectively), but this difference was not significant.

As soon as the American Food and Drug Administration issued the alarm about the possible association of tryptophan with the eosinophiliamyalgia syndrome (on 11 November 1989) we discontinued the study. None of our subjects developed any symptoms of the syndrome.

These preliminary data indicate that tryptophan can effectively relieve premenstrual dysphoric symptoms and might reduce excessive food intake. Moreover, they suggest that drugs that increase serotoninergic transmission may be useful in treating disorders of appetite and mood.4

> AMNON BRZEZINSKI NIZA SHALITIN PNINA EVER-HADANI JOSEPH G SCHENKER

Department of Obstetrics and Gynaecology, Hadassah University Hospital, Ierusalem

Israel 91120

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## **Russian doctors**

SIR,-The news item on Russian doctors contains the extraordinary statement, "Little is known of S S Iudin . . . other than the fact that he was a surgeon."

Somebody has not read Sergei Sergevitch's obituaries-especially that by Sir Gordon Gordon-Taylor, a masterpiece of the art.<sup>2</sup> Or read the appropriate entry in the Lives of the Fellows of the Royal College of Surgeons of England after the award of his honorary FRCS on 11 March 1943 (he was an honorary FACS also). Or read any of his many published works on surgery in several languages, or his philosophical reminiscence Reflections of a Surgeon (Vospominaniya Khirurga), presented to the Royal College of Surgeons by the then Minister of Health of the Soviet Union, Academician Petrovskii, of which I translated the section entitled "Images of the past and silhouettes of some field surgeons."

They have a feast in store and can look at Nesterov's portrait of S S Yudin in a new light.

BASIL HAIGH

Barton, Cambridge CB3 7AX

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