Perhaps the most important paper on this subject is that by Hempel, Bohm, and Carol,[11] who studied the incidence of menstrual irregularities in 200 patients on oral contraceptives and the case histories of 25 patients who became pregnant on the pill. They also studied three groups of patients who, in addition to hormonal contraceptives, had taken aminophenazone or phenobarbitone. Their findings were as follows: (1) Many drugs can accelerate the metabolism of hormonal contraceptives, thus reducing their biological effectiveness This occurs via the mechanism known as enzyme induction. (2) Breakthrough bleedings, spottings, and in some cases pregnancy correlate with these periods of enzyme induction in spite of regular intake of hormonal contraceptives. (3) It can be proved by an experimental test-cycle that certain individuals will have a tendency to such enzyme induction and that the beginning of bleeding is the most useful indication that it has occurred. This work, with that of the other investigatiors, has highlighted a new problem, for as the doses of oral contraceptives are reduced enzyme induction by the other drug taken becomes increasingly significant.

All cases of unintended pregnancy should in future be investigated not only from the point of view that the patient or the pill might be to blame but that the cause might lie with other, unrelated therapy. It is also of increasing significance where the medical and contraceptive care is the responsibility of two different physicians, as at the present time few realize the possibility of such interaction.—I am, etc.,

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Oss,
Holland

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Atropine Poisoning

SIR,—Atropine was formerly a well-recognized cause of poisoning but now tends to be overlooked, attention having shifted to newer synthetic drugs.

A 22-year-old horticultural student was admitted as an emergency after his father, on collecting him from College, observed him to be staggering, replying to non-existent voices, irrational, somnolent, and behaving oddly—for example, donning his pyjamas to go out. Examination revealed slurred speech, ataxia, olfactory hallucinosis, disorientation, and widely dilated pupils. Atropine poisoning was suspected—especially as his mother had been prescribed Neutradonna—but he vigorously denied drug-taking, and comprehensive urinary testing for drugs was negative. Next day he had recovered fully and admitted taking the seeds of *Datura suigiana*, a plant related to deadly nightshade, growing in the college's nurseries. He was subsequently discharged.

Referred to a psychiatrist in 1968 for behaviour disturbance attributed to inability to attain his school's and his parents' expectations of him, he had been diagnosed as an aggressive psychopath. Keenly interested in chemistry, he later made explosives, injuring has hand in an accidental explosion, and habitually took quantities of opiates obtained from home-grown poppies and several patent medicines containing opiates, chloroform, and ephedrine.

Atropine poisoning should be suspected in an acutely confused patient with dilated pupils and other neuropsychiatric abnormalities, particularly when the personality is deviant, the occupation "at risk," and urinary screening for drugs unhelpful. Atropine can probably cause symptoms in concentrations too low to be detected by gas chromatography testing of the urine.—I am, etc.,

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Laxative-induced Diarrhoea

SIR,—The interesting article by Dr. J. H. Cummings and others (23 March, p. 537) describes secret and excessive purgation with laxatives in seven women, resulting in severe physical illness and eluding early diagnosis. The patients were a heterogeneous group psychopathologically but included one (case 3) and possibly two others (cases 4 and 6) suffering from anorexia nervosa.

Secret addiction to excessive quantities of laxatives, often in association with self-induced vomiting behaviour, is quite commonly a feature in patients with chronic primary anorexia nervosa. This disorder may be construed as a psychosomatic avoidance response to psychosocial maturation, mediated through weight loss in association with dieting behaviour. Appetite is very often retained and some patients submit to their impulse to overeat, sometimes in a bulimic form. They may then evoke purging and vomiting mechanisms as ways of preventing gain in weight. As they become entrenched in this behaviour they can develop serious physical complications often associated with metabolic imbalance, especially hypokalaemia, which may further mask the underlying disorder. Excessive purging and vomiting behaviour is nearly always secretive and denied, for patients with weight phobia are terrified at the prospect of their weight being restored to a normal level. The diagnosis of anorexia nervosa is one that should be considered in patients who appear to be addicted to laxatives.—I am, etc.,

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Chronic Mucocutaneous Candidiasis

SIR,—In your leading article (1 December, p. 504) it was reported that some forms of chronic mucocutaneous condidiasis are associated with latent iron deficiency. Hence it was suggested that iron deficiency must be looked for and treated in many of these cases.

Since chronic mucocutaneous candidiasis characteristically occurs as a complication in patients with immune-deficiency syndromes, especially those with T-cell defects,[1] it is of interest to mention the recently reported defects of cell-mediated immunity in patients with iron deficiency anaemia.[2] Thus iron deficiency might have been either the cause or a contributing factor of the chronic infection through the depressed immunity which it brings about. Since iron ions and iron compounds such as haemin are known to enhance protein and DNA synthesis,[3 4] this could be taken as the explanation for the mechanism by which iron affects immunity.

On the basis of this hypothesis replenishment of iron stores in patients with chronic mucocutaneous candidiasis might indeed cure them by correcting their immunological impairment. However, it is equally well established that iron promotes infections and is essential for bacterial growth, probably also by its effect on protein and DNA synthesis.[5] Thus replenishing the iron stores of patients with this disease could have an equivocal effect. On the one hand it might restore, at least partially, the impaired cellular immunity which is probably responsible for the candidiasis. On the other hand such treatment might expose these patients, especially if their humoral immunity is also impaired, to bacterial infections.—I am, etc.,

Y. LEVO

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Petah Tiqva,
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Coping with Minor Casualties

SIR,—I am sure that many casualty officers and consultants in accident and emergency departments will agree whole-heartedly with some of the views expressed by Mr. C. Bagley (6 April, p. 55). In general we are all too well aware of the number of patients attending such departments who could well be treated by an occupationally based health service or indeed by their own general practitioners.

Three points, however, should be considered. Firstly, in many areas where there is an industrial health service patients are frequently sent to hospital by the staff of that service only because they require a tetanus toxoid injection or course of injections, their injuries in general not being of a serious nature. Surely the establishment of a population actively immunized against tetanus is the province of either the family doctor or industrial health services.

Secondly, many patients sent up by the industrial health services are patients who have had a condition which has persisted for some time, but apparently it is easier to send them up to the accident and emergency department than to refer them back to where they rightly belong—to the care of their family doctor.

Thirdly, a great many cases of industrial injury, in some areas at any rate, involve foreign bodies in the eyes and heavy objects falling on toes, etc. Such conditions occur in most cases because adequate safety measures had not been used, and it is very noticeable that very often the same patient will come up on several occasions with the same complaint. These industrial accidents are almost certainly, in the main, preventable, given adequate education by the firm's safety officer or equivalent, but often there

is no evidence that the teaching and effective implementation of such safety measures are carried out at the place of work.

As Mr. Bagley so rightly suggests, occupationally based health services could help enormously in reducing the work load on the busy accident and emergency departments and could certainly save a great deal of time lost at work, but it must be borne in mind that unless such services can be aimed at prevention as well as treatment of injuries within their scope, then it could create more rather than less work for those departments.—I am, etc.,

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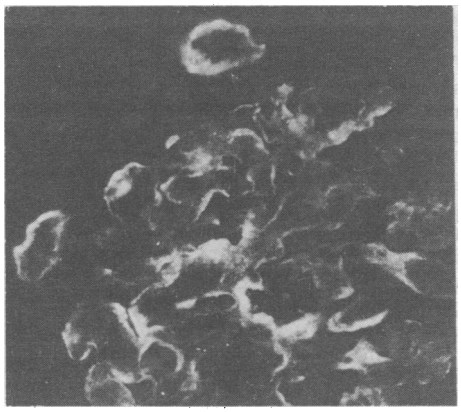
Pre-eclampsia and the Kidney

SIR,—We read with great interest the recent article by Dr. O. M. Petrucco and his colleagues from Adelaide on "Immunofluorescent Studies in Renal Biopsies in Pre-eclampsia" (16 March, p. 473). During the past 18 months we have examined renal biopsy specimens from 10 patients considered clinically to have severe pre-eclampsia. The biopsies were performed at periods varying between 6 and 14 days post partum. These all showed light and electron microscopical findings similar to those described in pre-eclamptic toxaemia by Thomson *et al.*[1] Immunofluorescent studies were performed on the last six specimens and the results are tabulated below.

These findings broadly resemble those reported by Dr. Petrucco and his colleagues. Patient selection, time of biopsy, and technical methods may explain the differences obtained with IgG, IgA, complement, and fibrin. However, it is difficult not to be impressed by the dramatic immunofluorescence obtained in both series with IgM, an antibody not often demonstrated in renal glomeruli. In all our specimens the IgM fluorescence had an apparently linear pattern within the capillary loops, as shown in the accompanying illustration.

This observation seems to contrast with the patchy granular mesangial and capillary loop deposits illustrated in Dr. Petrucco's article and raises a fundamental question with regard to the possible underlying mechanism of the immunological changes observed by both ourselves and the Australian workers in these renal biopsies from patient with pre-eclampsia.



Glomerular IgM deposition in pre-eclampsia (case 5) (×454)

These preliminary findings, which we intend to publish in detail later, confirm the presence of glomerular immunoglobulins in pre-eclamptic toxaemia and support the hypothesis that immunological processes may be implicated in the pathogenesis of pre-eclampsia.—We are, etc.,

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[1]Thomson, D., *et al.*, *Journal of Obstetrics and Gynaecology of the British Commonwealth*, 1972, **79**, 311.

Cello Scrotum

SIR,—Though I have not come across "guitar nipple" as reported by Dr. P. Curtis (27 April, p. 226), I did once come across a case of "cello scrotum" caused by irritation from the body of the cello. The patient in question was a professional musician and played in rehearsal, practice, or concert for several hours each day.—I am, etc.,

J. M. MURPHY

Chalford, Glos

F.R.C.S. Subscription

SIR,—Concealed in the middle of a recent "news-letter" from the President of the Royal College of Surgeons lies this passage: "Council now feel that the time has come for all Fellows (other than those who have retired from practice) to subscribe annually. . . . If any of you object on principle, please write to me about it—otherwise it will be assumed that this unifying measure has your support."

I have written to the President on this matter but hope that you, Sir, will find space to publish this letter so that some of those Fellows who tired of reading the news-letter before reaching the end of page four, as I almost did, may avoid giving their unsuspecting support to this measure.—I am, etc.,

IAN W. PAYNE

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Medical Practices Committee

SIR,—Dr. G. M. Coleman (27 April, p. 228) may be interested in my experience with Dr. Arthur Maiden and his colleagues on the Medical Practices Committee.

In May 1973 my seniority allowance was cut off because of my age. When I pointed out to a higher-up in the Department of Health and Social Security that I would be continuing to do the same work I was told that as there was no longer a shortage of general practitioners it was no longer necessary to pay older doctors money which could be looked upon as an inducement to continue to practice.

After some months I found it difficult to bear the burden of being on duty for 24 hours on every one of seven days a week and set about getting myself an assistant at my own expense. The M.P.C. became involved and decided that this could not be permitted because this area has already enough doctors. I pointed out that my action would cost no one anything except myself and that as the friend willing to assist me was a retired R.A.F. medical officer of some seniority he could not be sent to any other district. The answer was still "no" and no reply was made to my question as to who would benefit by their decision, pointing out that if they could not give me a reply they were merely exercising power for its own sake in a manner justifying George Orwell. A deep silence followed.

More recently I employed a young woman doctor as a locum for a time and it would

Correlation of Clinical, Histological, and Immunofluorescent Antibody Studies in Patients with Pre-eclampsia

Clinical Findings							Histological and Electron Microscopical Findings	Immunofluorescent Staining Patterns				
Case No.	Age (years)	Parity	Maximum B.P. (mm Hg)	Maximum Proteinuria *(g/l.)	Biopsy time (days post partum)	Clinical diagnosis		IgG	IgA	IgM	Complement	Fibrin
1.	25	1	210/125	3·0	8	Severe P.E.T.	Severe pre-eclampsia	±	+	++	−	+
2.	23	0	170/110	4·0	12	Severe P.E.T.	Severe pre-eclampsia	−	−	+++	−	+
3.	27	0	160/100	6·0	6	Severe P.E.T.	Severe pre-eclampsia	−	±	++	−	+
4.	47	0	180/115	5·0	14	Severe P.E.T.	Moderate pre-eclampsia	−	±	++	+ (Arteriole)	−
5.	21	0	200/140	0·5	9	Severe P.E.T.	Moderate pre-eclampsia	±	+	+++	−	+
6.	23	0	—	1·5	8	Severe P.E.T.	Moderate pre-eclampsia	−	±	++	−	+

*Esbach estimation. P.E.T. = Pre-eclamptic toxaemia.