had a creatinine level of 2.30 mmol/l (26 mg/100 ml) and was presumably urine. This was confirmed by further examination in our clinical chemistry laboratory.

The cells cultured were presumably bladder epithelium. The diagnostic hazard is, of course, mistakenly concluding that the chromosome complement from such cells represents that of the fetus. Since these cells may be difficult to subculture, such an error may be more liable to occur in laboratories that examine metaphases in cell colonies from primary cultures. It is of interest that this sample was one of three of the 144 amniotic fluid specimens sent to our laboratory last year which were found to be urine. This occurred in spite of the fact that all of the amniocenteses were done with the aid of ultrasound by experienced obstetricians. It is often considered desirable for the patient's bladder to be full during this procedure, as it was in these cases, to buoy or support the uterus, especially when the placenta is anterior.² This may, of course, increase the risk of bladder puncture.

It is difficult to distinguish between urine and amniotic fluid because of the similarity in colour and appearance. An aliquot of supernatant should be tested for creatinine or urea content if the sample is suspected of being urine. Attempted cultures from all of the urine specimens we received would have been classified as culture failures if we had not been alerted by the laboratory doing our α -feto-protein determinations that the samples were not amniotic fluid.

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¹ Nadler, H L, and Ryan, C A, in *Human Chromosome Methodology*, ed J J Yunis, p 191. New York, Academic Press, 1974.

² Sandler, M A, Sznajda, S M, and Bitky, L L, *Radiology*, 1979, **130**, 195.

Hulka-Clemens clips

SIR,—Had the date of the recent article by Dr G A Clarke and others (10 March, p 659) been 1 April, I would have assumed it to be some sort of hoax. However, it cannot be allowed to pass without comment.

The Hulka clips are an unreliable method of sterilisation. In this unit we have seen two patients who have become pregnant after sterilisation in this manner over the last 12 months, the operations on both patients having been completed at the hospital which has unfortunately given its name to the clip applicator. For the authors of this article to postulate abdominal transmigration of sperm on such flimsy evidence is absurd. The reality of the matter is that this is just another straightforward failure of the Hulka clip.

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"Outwith my competence"

SIR,—On 3 March the word "outwith" appeared at least twice in your correspondence columns (p 616, Mr F P Jones—"outwith the scrotum"; and p 621, Professor W St C Symmers—"outwith my competence").

What does it mean? Or rather, what extra meaning does it convey that the word "out-

side" does not? The reason I address this query to you and your readers is that I have noticed the word creeping into use over the last year or so and it has always been from the mouths or pens of doctors.

The Shorter *Oxford English Dictionary* says the word is "chiefly northern, now Scots," and 50% of the examples quoted above were indeed from Aberdeen. However, before the word is exported too widely to England and becomes 1979's most fashionable new usage perhaps its usefulness could be demonstrated or its use abandoned.

KARL SABBAGH

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*"Outwith" is widely used in educated speech in both Scotland (Mr Jones) and Northern Ireland (Professor Symmers). We feel sure that Mr Sabbagh did not insist on Scotsmen and Ulstermen who contributed to his BBC programmes using exclusively "English" English. Nor do we do so in our correspondence columns, where we try to retain the individual flavour of the contributions.—Ed, *BMJ*.

Amitriptyline plasma concentration and clinical response

SIR,—We read with interest the paper by Dr S A Montgomery and others (27 January, p 230) entitled "Amitriptyline plasma concentration and clinical response." We agree that the relationship between "plasma concentrations and clinical response is more complex" for the antidepressants than would be expected. The diverse findings of several groups with amitriptyline illustrate this point. In addition to the studies quoted, Zeigler *et al*¹ found a negative correlation between plasma concentration (total amitriptyline and nortriptyline concentration) and clinical response in 18 outpatients; Kupfer *et al*² found a negative correlation between plasma concentration (total amitriptyline and nortriptyline concentration) and clinical response in 16 inpatients; Corona *et al*³ found a positive correlation between plasma concentration and clinical effect in 77 female patients; and Vandel *et al*⁴ found a curvilinear relationship in 62 patients. We would also agree that the investigation of this relationship is a difficult problem, the sources of variation pointed out by Dr Montgomery being those most likely to give differences between groups. There is a clear need to identify responders to tricyclic antidepressant therapy and to investigate relationships between plasma values and clinical response within this group.

Several specific points from Dr Montgomery's paper need clarification. Presumably the placebo period was five to seven days, long enough to eliminate "placebo responders." The response rate was 60%, which is the usual placebo response. Were patients who responded early in the trial continued on treatment until they had completed six weeks' drug treatment? The authors made a mathematical error in that 58%, not 72%, of patients were within the 80-200 μ g/l range. What percentage of patients inside the therapeutic range actually improved and what were the criteria of improvement? Did any patients outside the "therapeutic" range improve? What proportion of individuals had plasma values less than 80 μ g/l? All would agree that not enough drug does not produce the desired clinical response, and that these patients should not be included in the regression analysis. Were any attempts

made to titrate non-responding patients' plasma values to the "therapeutic" range and measure response? The mean values of plasma amitriptyline and nortriptyline are given to two decimal places. Surely these should be quoted at best only to the nearest 5 μ g/l. We assume that these values were measured using gas chromatography by the method of Dawling and Braithwaite,⁵ which has a precision of 2.5% at "therapeutic" concentrations. Were these all new patients or had some or all been previously reported? No simple relationship between plasma concentration and age was found in this study. Nies *et al*⁶ found that steady state levels of amitriptyline were influenced by age and sex. This may be an important source of variation between studies examining relationships between plasma concentrations and clinical response. The method of measuring plasma concentrations is another source of variation. Interlaboratory comparison of assays is required.⁷

This trial highlights the problems of studies attempting to correlate plasma values and clinical response. All clinicians would agree with the general findings of the results of the study. For endogenous depressions, not enough drug does not produce a therapeutic effect; too much drug may be associated with dangerous cardiac abnormalities.⁸ This disagreement between groups is primarily concerned with defining the upper and lower limits of tricyclic antidepressant plasma concentrations.⁹ For individual patients who respond to tricyclic antidepressants a relationship between plasma concentrations and clinical response has been demonstrated.¹⁰

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¹ Zeigler, V, *et al*, *Clinical Pharmacology and Therapeutics*, 1976, **19**, 795.

² Kupfer, D J, *et al*, *Clinical Pharmacology and Therapeutics*, 1977, **22**, 904.

³ Corona, G L, *et al*, *Pharmacopsychiatrie*, 1977, **10**, 299.

⁴ Vandel, S, *et al*, *European Journal of Clinical Pharmacology*, 1978, **14**, 185.

⁵ Dawling, S, and Braithwaite, R A, *Journal of Chromatography*, 1978, **146**, 449.

⁶ Nies, A, *et al*, *American Journal of Psychiatry*, 1977, **134**, 790.

⁷ Burrows, G D, *et al*, *Biochemical Medicine*, 1978, **20**, 125.

⁸ Burrows, G D, *et al*, *British Journal of Psychiatry*, 1976, **129**, 335.

⁹ Burrows, G D, *et al*, *Communications in Psychopharmacology*, 1978, **2**, 393.

¹⁰ Burrows, G D, *et al*, *Clinical Pharmacology and Therapeutics*, 1974, **16**, 639.

Blood specimen collection tubes for coagulation tests

SIR,—It has been brought to our attention that unsilicified glass tubes with liquid citrate are now marketed labelled "for coagulation studies." The Anticoagulant Control Panel wishes to emphasise that use of such tubes may cause inaccurate results of coagulation tests and therefore lead to an error in diagnosis or dangerous instability in the control of anticoagulant therapy.

Blood specimens for coagulation tests should be collected with a plastic syringe and transferred to a plastic tube containing 0.109 mol/l liquid trisodium citrate, which has been freshly added in the proportion of 1

volume to 9 volumes of whole blood¹ followed immediately by gentle mixing. The appropriate tests should be carried out as soon as possible.

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¹ Ingram, G I C, and Hills, M, *Thrombosis and Haemostasis*, 1976, **36**, 237.

duction of a continuing choice as indicated in (10) above.

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R J C SOUTHERN
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work require the allocated two sessions for necessary administrative and on-call commitments then 12 scheduled sessions must require three such extra sessions, bringing the total to 15.

Our initial proposition was that the new contract will discriminate against those consultants who work the largest number of scheduled clinical and laboratory sessions. If the adjustment we propose is not made our case must stand.

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The new consultant contract

SIR,—We full-timers view the possible implementation of the new contract with increasing distaste. Among our objections to it are the following:

(1) There is uncertainty regarding the availability and distribution of extra NHDs. (2) The financial constraints within which employing authorities inevitably work mean that all consultants will be effectively competing for extra NHDs—with divisive results. (3) Varying interpretations of the contract will create anomalies between regions. (4) Future consultants will be deprived of the choice of full-time status, since this will depend entirely on the availability of four extra NHDs. (5) Those who, in future, are not interested in private practice or have no chance of it and who are therefore able to devote the whole of their professional energies to the NHS will not be offered the present modest premium to do so. This cannot be in the interests of potential full-timers, or of the NHS. (6) The new contract represents a radical alteration in terms of service, rather than just a change in the method of remuneration. There is no justification for substituting it without any choice for the present contract on the basis of last year's unsatisfactory ballot. (7) The hoped-for increase in earnings, which was the main incentive to accept the new contract, might be disappointingly small, and would almost certainly be considered by some to have been inequitably distributed. The level of remuneration should be regarded as a separate issue from the structure of the contract. (8) Many full-timers, present and potential, would prefer an open contract of the existing type, by which they would assume a defined responsibility in return for an inclusive salary. The latter would have to be reasonably attractive in comparison with the proceeds of an average new-style contract—otherwise the option which existing full-timers will have to retain their present contracts will be seriously devalued. (9) The new contract is too complicated and will require a great deal of extra administrative work both to set up and to oversee; if the choice of a salaried open contract remains for future as well as present consultants administrative complications would be reduced in proportion to the number choosing the old-style contract, which is inherently much simpler. (10) While we have no desire to deprive those who may prefer it of a new-style contract, we cannot agree that its introduction should prevent our successors from choosing an open salaried contract, suitably priced, if that is what they prefer.

The purposes of this letter are to mobilise opposition among full-timers to the new contract as it stands at present and to serve notice on our negotiators and on the DHSS that such opposition exists on a substantial scale. We insist that our views merit serious consideration. In the event of a further ballot—and it is hard to believe that this can decently be avoided—we intend to vote against the new contract, irrespective of pricing, unless it is amended by the intro-

SIR,—Dr C C Booth and his colleagues (17 March, p 755) have described the pathological features of the new contract in detail and most workers in this field would agree with them that malnutrition is the main aetiological factor. But from such a wealth of scientific talent one expects a more precise prescription for therapy than "the BMA must convince the Government."

Other consultants are familiar with the degenerative aspects of the new proposals and would welcome ways of restoring the health of the profession without resorting to radical reconstructive surgery.

What exactly do Northwick Park advise?

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SIR,—I write in total support of the letter of Dr C C Booth, undersigned by 47 of his colleagues (17 March, p 755). The proposed new consultant contract is unacceptable, no matter what the pricing.

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Proposed consultant contract—equal pay for equal work?

SIR,—We are most grateful to you for publishing our comments on the new contract (17 March, p 755). The Secretary replies that our calculations are fallacious because the two sessions allocated in the new standard 10-session contract for on-call responsibility and for administrative commitments are genuine sessions requiring work and effort.

We do not dispute the latter contention in the least. However, the extent of the on-call and administrative components in the new contract are clearly related to the extent of the clinical and laboratory work performed, because they are to be reduced pro rata if fewer than eight scheduled sessions are worked. We fail to understand why a consultant's on-call commitment and responsibilities will not therefore increase pro rata if he works more than eight scheduled sessions. The gravamen of our assertion is that any clinical or laboratory sessions above the standard contract will generate further on-call and administrative commitments. Therefore, such extra scheduled sessions should be remunerated at 125% of the normal sessional rate to accommodate the demands of this unscheduled work. To state the position in another way: if eight sessions of scheduled

Saving pay-beds

SIR,—The Health Services Board has now opened a new phase of its campaign to remove authorisation for private beds from NHS hospitals, and I would be grateful for the opportunity to draw the attention of consultants to this matter and to give some guidance on the steps necessary to counter it.

On 1 March the board sent a letter to all consultants employed in the NHS in England, indicating its intention to apply section 70(c) and (d) of the National Health Service Act 1977 to remaining authorisations for private beds. These two subsections instruct the board to inquire into the measures which have been taken to create alternative facilities to replace hospital private beds and, where it is not satisfied that everything possible has been done, to issue "due warning" that the existing authorisations in the hospitals concerned will be withdrawn by a specified date. For this purpose the board has divided hospitals with private bed authorisations into four groups according to the number of beds still retained, and has set a timetable for the various stages of the exercise, starting with the smallest units with fewer than 10 beds and ending with units having over 20 beds. In its programme the date for implementation of withdrawal in the largest units will be 1 July 1982.

Superficially, this might appear to mean that there will be no authorised private beds remaining in NHS hospitals after 1 July 1982, but this is, of course, not the case. The board is bound by the Act of 1977, which indicates fairly precisely the criteria by which the board must judge the efforts made to create alternative facilities. Consequently, where suitable evidence can be presented to the board regarding the efforts made it will be obliged to give it very serious consideration and to retain the authorisations if all reasonable steps have been taken. It would be quite inappropriate to issue advice to consultants on how best to tackle the problem of creating and presenting such evidence in this letter, but within the next three to four weeks chairmen of medical executive committees (or medical staff committees) in all affected hospitals will receive a letter setting out in detail the steps which should be taken to allow an acceptable case to be made to the board to defend the remaining beds. If, by any chance, a hospital has not received such a letter by Easter, at the latest, a copy will be sent immediately in response to a request to BMA House.

Sadly, a number of hospitals covered by the Health Services Board's proposals sent out in October and December 1978 do not appear to have taken any steps to present evidence to the board opposing its recommendations. I fear