that the changes in urinary-oestrogens excretion after oophorectomy or adrenalectomy cannot be related to clinical benefit.⁶ A possible conclusion is, therefore, that the benefit that follows oophorectomy or adrenalectomy in some patients with breast cancer is due not so much to removal of oestrogen as to the consequent liberation of gonadotrophins that follows such ablation therapy.

In other words breast cancer in the younger woman may not be so much "oestrogen dependent" as "pituitary dependent." There is, of course, other evidence that points to the same conclusion, but I hesitate to repeat this evidence in a letter. I would add only that my suggestion should lead logically to a trial of human pituitary gonadotrophin administration in patients with breast cancer failing to respond to castration. A similar trial was suggested in the treatment of cases showing a low gonadotrophin excretion after adrenalectomy.⁸ The absence of reports of such trials in the literature to date reflects the difficulty of procuring adequate supplies of human pituitary gonadotrophin for therapeutic trial, but I hope that this will be remedied in the near future.—I am, etc.,

Melbourne, Australia. BASIL A. STOLL.

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Drugs for Depression

SIR,—Your leading article (29 August, p. 522) on "Drugs for Depression" requires some comment.

Firstly, you promulgate the "pseudo-scientific" myth that depressions can be divided into endogenous and reactive types, in spite of the formidable researches of Lewis¹ and Garmany.² We³ have reinvestigated this problem in Edinburgh and found only two factors which were clearly discriminatory, severity of depression and history of previous manic episode. We feel, therefore, that using the dichotomy endogenous-reactive as a basis for differing drug therapies is misleading. Your contributor goes on to mention Drinamyl (dexamphetamine and amylobarbitone) as an efficacious agent in the treatment of depressive symptoms occurring in the context of a personality problem. This seems surprising in 1964, when we know that amphetamine is highly addictive⁴ and that it can readily cause toxic psychoses.⁵ Then there is reference to iproniazid as "still the most effective" of the monoamine oxidase inhibitors, without adequate reference to the appreciable mortality from liver damage.⁶ Finally, in the

last paragraph there is the suggestion that nortriptyline has a strong sedative effect, but has "not yet been adequately assessed." I presume, Sir, that your contributor had not had the opportunity of reading the recent issue of the *Scottish Medical Journal* in which our evaluation of nortriptyline is reported.⁷ We found this drug to be more effective, on the sample of depressives treated, than amitriptyline, and also markedly less sedative. In fact, we found nortriptyline to have a quite definite antidepressant or stimulant effect more akin to that of imipramine.

It may seem presumptuous to question your leading article this way, but it will be read by many general practitioners who treat many of their depressive patients themselves and will regard your leader as authoritative. In this field, where the effect of the doctor is often as great as that of the drug, it is not wise to be dogmatic.^{8,9} Nevertheless, it may be justifiable, taking severity of depression as the criterion, to suggest the following rank order of antidepressant drugs. For severe depressions, imipramine is generally accepted to be first choice, and, if our experience proves to be any guide, nortriptyline may well become second choice. For moderate depressive reactions, especially where agitation is prominent, amitriptyline with its marked sedative effect is indicated. For milder depressions, especially where anxiety and phobic symptoms are present, the combination of phenelzine and chlor-diazepoxide is a good treatment regimen.¹⁰ Tranylcypromine may be used in small dosage—that is, 10 mg. b.d.—in special cases, and iproniazid in the very exceptional case, though personally I regard it as too toxic. It is my opinion, and the opinion of many psychiatrists in this region, that amphetamines should never be prescribed for depressive illnesses.—I am, etc.,

A. D. FORREST.

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Morningside, Edinburgh.

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Ampicillin for Typhoid Carriers

SIR,—I read with obvious interest Dr. K. F. Anderson's letter (29 August, p. 571) in which he criticizes my earlier letter on the treatment of typhoid carriers with ampicillin (9 May, p. 1252). His letter raises many points of undoubted interest but I would like to confine myself to a few comments.

I am surprised that Dr. Anderson's experience has been limited to cases in which there was "obvious gall-bladder disease with one or more calculi present."

My experience, in accord with many others, includes a large number of cases in which no such pathology was present. Christie's¹ series of eight faecal carriers included four

with normal functioning gall-bladders and no evidence of stones.

The object of my letter, however, was not to discuss the aetiology and pathology of the carrier state but briefly to report on what seemed, and indeed still seems, to be a very encouraging response to a new antibiotic in patients who had previously resisted all chemotherapy.

Whatever our later investigations into these patients' serology may show in the way of Vi-antigen titres, the fact remains that the excreta of these previously persistent carriers has now remained free of salmonellae for a period of from 18 months to two and a half years, and as such they are unable to trigger off a new outbreak of typhoid fever.

No one would disagree with Dr. Anderson that caution should be exercised before assuming permanent cure of these patients, nor would anyone deny the need for surgery when indicated.

To infer, however, that the reporting of such dramatic changes in the excretion pattern of chronic carriers should await the interpretation of long-term serological investigations of questionable significance reveals surely a failure to appreciate the clinical problem.—I am, etc.,

Prestwich Hospital,
Nr. Manchester.

PATRICIA TROY.

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Pargyline Hydrochloride

SIR,—In your leading article "Drugs for Depression" (29 August, p. 522) you say: "Tranylcypromine (Parnate) is the only monoamine-oxidase inhibitor that is not a hydrazine." As far as antidepressive drugs are concerned this statement is true. We would, however, like to remind you that pargyline hydrochloride (Eutonyl), which is intended for the treatment of hypertension, is also a non-hydrazine monoamine-oxidase inhibitor.

Until the introduction of pargyline hydrochloride monoamine-oxidase inhibitors were mainly intended for use in the treatment of depression, and it is important to remember that here we have an antihypertensive which requires the same precautions as regards cheese, yeast extracts, alcohol, etc. It is possible to avoid these reactions, and for this reason we have made available instruction cards for patients which list the dietary and other restrictions involved.—I am, etc.,

Abbott Laboratories Ltd.,
Queenborough, Kent.

J. S. MUNRO.

Arteriospasm after Ergotamine Tartrate

SIR,—Dr. E. Byrne-Quinn's memorandum (29 August, p. 552) prompts me to report a similar case recently admitted to University College Hospital.

The patient is a 59-year-old woman, admitted 18 months previously with non-thrombocytopenic purpura, the cause for which was obscure. Since then she had had about three attacks of headache accompanied by visual disturbance suggestive of migraine. The last attack began one week before admission. Four days later Cafergot-Q tablets (containing 1 mg. ergotamine tartrate) were prescribed. She took three of