respectively. Thus it would seem that the mortality following transplantation is grossly underestimated by this analysis of the Edin-
burgh data (however, other transplant sur-
vival data are available).

Secondly, there are several minor errors in the text and Tables. For example, in
Figure 3 the numbers of patients surviving in the first five months bears little relation
to the percentage survival graph. Also, in the paragraph on dialysis survival, it is stated
that a survival of 0.98 has been used in states 7, 15, 23, and 25; this is not true of state 25.

Finally, it would seem that some explana-
dation of the derivation of the 95% confidence
limit is necessary. As I understand forecast-
ing by a Markov process a 95% confidence
limit is calculable on the basis that each parameter behaves as a random variable
subject to predetermined probabilities. How-
ever, each probability, based on observation of past data, is subject to error and an estimation of these errors is desirable before
confidence limits are applied to a forecast.
"As indicated above, I consider that several of
the more important probabilities have been assigned values in error.—I am, etc.,

R. R. WEST


Long-acting Phenothiazines in Schizophrenia

Sir,—I have belatedly received the 23 January issue of the British Medical Journal and was most interested in your leading article on "Long-acting Phenothiazines" (p. 189).

This article mentions "no double-blind controlled investigations of long-acting flu-
phenazines have been reported." At least six are known to me, of which three compare an oral long-acting phenothiazine with flufenazine enanthate. 1,2

Despite this oversight the writer rightly interprets the remaining data as indicative of their usefulness. This is important since we know from the full text of the controlled trial. The necessity for their use in several areas should not blind us to the information available from other approaches, particularly in this type of patient.

In the first study of flufenazine decanoate in man we concluded that it was a most useful potent agent, longer acting, and with fewer side effects than flufenazine enan-
thate. This in an open-study of 12 patients. 1 No evidence was apparent to contradict the above statements, and indeed in two controlled studies of flufenazine enanthate versus flufenazine decanoate both concluded that fewer extrapyramidal side effects are produced with the decanoate, although the results were less conclusive about the greater length of activity. 1

The incidence and control of side effects has been detailed elsewhere, but are not necessarily as frightening as has been sug-
gested. 1

The range of improvement which appears greater than with oral preparations may be related to the speeding of gut and the liver therefore avoiding absorption and possibly early metabolic breakdown. Finally, the

practice and pathologists advising on chemother-
apy to attempt an unbiased retroactive interpretation of the past effect of chemotherapy in patients where the infecting microbe was subsequently demonstrated to harbour a specific type of resis-
tance to the drug used. Secondly, for a clinical laboratory to extract from detailed collec-
tions of cultures from specific types of in-
fecteds where the outcome of single course antibiotic therapy is known—whether suc-
cessful or not—irrespective of what previous administration had been made of sensitivity tests.

Studies of this type might help in our understanding of which levels of resistance are likely to compromise successful therapy in particular categories of infection. In the case of methicillin resistance, for example, they might help to tell us whether types of infection are amenable to treatment with penicillins (for example, cloxacillin) alone, and which require supplementary or other therapy. A similar study would be useful in the case of outpatients in whom infections are often caused by Staph. aureus strains producing small amounts of en-
cillicillin. Further, the isolation of these infections is still amenable to treatment with penicillinase-
labile penicillins. 4

In a subject where there is little factual informa-
tion to rely on it would seem prudent to make categories of "resistant" and "susceptible" with all possibility of infection. It would be of interest to hear if anyone has access to material that might be of value in the types of assessment described.—I am, etc.,

J. H. HOWITT

Clinical Research Centre, Watford, Herts.


Cyclophosphamide and the Bladder

Sir.—A point referred to in your leading article (26 June, p. 726) merits amplification. It relates to the distinction between cyclo-
phosphamide-induced cystitis and bladder malignancy.

Your leading article reinforces the manu-
facturer's recently circulated note on haemorrhagic cystitis, drawing attention to the occurrence of this side effect of the drug in some 10 to 20% of patients receiving large amounts of cyclophosphamide. In-
formation therefore will reduce the possibility of misinterpretation of the cause of haemato-
turia when this is not accompanied by the more usual dysuria or increased frequency of micturition. Even cystoscopy, biopsy, and cytology can be misleading. Liedberg et al. say "The cytologist and the clinician should be aware of the fact that pictures suggesting malignancy may appear during treatment with cyclophosphamide. The polymorphous, tumour-like masses frequently seen on cystoscopy may be mistaken for metastases or primary bladder tumour both macroscopically and microscopically, partic-
ularly in very small biopsy specimens." 5

Goldman and Warnke 6 also emphasized the importance of recognizing the atypical


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