

giving the long trailing end-points were... morphologically abnormal and mostly dead" and "the few viable abnormal forms... assumed normal morphology when transferred to trimethoprim-free medium." The latter observation supports our view that, in the context of practical chemotherapy of chronic infections, these strains must be regarded as drug-resistant. Promotional literature relating to trimethoprim/sulphamethoxazole mixtures stresses their bactericidal activity. This may be so under controlled conditions *in vitro* but, as pointed out elsewhere^{1,2} the relapse of infection usually suffered by patients with chronic haemophilus respiratory infections after treatment with such mixtures is entirely similar to that following bacteriostatic drugs. The discrepancy can be explained by the poor penetration of sulphamethoxazole into respiratory secretions,³ which has the result that response to treatment is effectively the response to trimethoprim alone—a bacteriostatic drug. In such circumstances Dr. Bushby's demonstration of the ability of even a few organisms exposed to high concentrations of trimethoprim to revert to normal forms in subculture is entirely compatible with our belief that these forms must be regarded as drug-resistant.

(4) Dr. Bushby refers to his experience of the response to trimethoprim of mice infected with our strains. However, little significance can be attached to such studies in the context of chronic human infection, because mice, like other laboratory animals, are susceptible to infection by noncapsulated *H. influenzae* only when injected with enormous numbers of organisms—a situation bearing scant resemblance to the natural situation.

We have no doubt about the value of trimethoprim in the short-term treatment of many patients with acute infections or acute exacerbations of chronic ones, but it has been disappointing in the bactericidal therapy of chronic infections of the respiratory tract. As with other drugs with a similar limitation a natural consequence may be a tendency to prescribe the drug for prolonged periods in individual patients. We feel that a logical conclusion to be drawn from our findings is that trimethoprim should not be used in this way in respiratory disease, or indeed be prescribed at all without a clear indication for it, such as failure of response to ampicillin or tetracyclines. The emergence of resistant organisms provides a warning that indiscriminate prescribing may result in the loss of effectiveness of the drug in situations where at present it is often of great value.—We are, etc.,

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- 1 May, J. R., *Postgraduate Medical Journal*, 1972, 45, November Supplement p. 94.
- 2 May, J. R., *Chemotherapy of Chronic Bronchitis*, 2nd edn., p. 63. London, English Universities Press, 1972.
- 3 Reeves, D. S., *Journal of Clinical Pathology*, 1971, 24, 430.

Fashions in Infant Feeding

SIR,—Your leading article (30 June, p. 722) drew attention to the lack of published information on the composition of the urine of infants fed high solute loads. The following results were obtained from normal controls during a study of urine composition in infants with heart failure. The infants were

TABLE I—Urinary Solute Concentrations (Mean \pm S.D.) in Infants Fed on Different Feeds

Feed	No. of Infants	Sodium (mEq/l.)	Potassium (mEq/l.)	Urea (mg/100 ml)	Sodium (mEq/l.) Creatinine (mg/100 ml)
S.M.A.	9	20 \pm 11	28 \pm 10	504 \pm 451	1.5 \pm 1.0
Non-humanized milks	12	49 \pm 40	80 \pm 45	1,493 \pm 861	1.7 \pm 1.2
Weaning diet	18	57 \pm 48	60 \pm 38	1,117 \pm 642	2.2 \pm 1.6

aged 11-314 days and were receiving Similac (S.M.A.), non-humanized cow's milk, or weaning diets. Results are from random urine specimens collected between 2 and 4 p.m. Urinary sodium, potassium, urea, and creatinine concentrations were measured by AutoAnalyzer and urine osmolality with an Advanced osmometer.

As shown in Tables I and II urinary sodium, potassium, and urea concentrations and urine osmolality were significantly higher ($P < 0.02$) in infants fed non-humanized milk or weaning diet than in those fed on S.M.A.

TABLE II—Urine Osmolality of Infants fed on Different Feeds

Feed	No. of Infants	Urine Osmolality (mosmol/l.)		
		Mean	S.D.	Range
S.M.A.	8	236	121	91-401
Non-humanized milks	10	544	285	97-1,000
Weaning diet	9	532	259	167-1,000

The normal urinary concentrating power of infants fed high-protein diets is 1,200-1,400 mosmol/l.¹ Since two infants in this small group were passing almost maximally concentrated urine, it is easy to speculate upon the likely effects of extra water loss.—We are, etc.,

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- 1 Edelmann, C. M., *Pediatrics*, 1973, 51, 854.

SIR,—Dr. R. K. Oates (30 June, p. 762) has done a service in pointing out so clearly the faults that commonly occur in preparation of infant feeds. Of particular importance in his series is the fact that of 90 mothers using dried milk formulae nearly one-third prepared milk that was too concentrated or too dilute. Experience has shown that this kind of error is compounded by variations in mixing instructions that occur with different brands of dried milk.¹ Quite apart from mothers, it is clear that doctors, health visitors, students, and nurses become confused by the lack of standardization.

Recently the South African Paediatric Association, in conjunction with the South African Metrication Board, has managed to persuade all dried milk manufacturers in South Africa to adopt a standardized dried milk dilution as from 1974. For unmodified milk formulae the dilution is to be one 5-ml teaspoon (or scoop) to 25 ml of water, and for modified milk formulae it is to be one scoop (size determined and provided by the manufacturer) to 25 ml of water. All feeding bottles are to be standardized to 250-ml size with 25-ml divisions. Instructions

to mothers can then be simplified to one teaspoon or scoop per division on a bottle whatever milk powder is used. It is hoped that this innovation will reduce errors of excessive concentration and dilution.—I am, etc.,

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- 1 Hansen, J. D. L., Leary, P. M., Anderson, J. H., and Robertson, I., *South African Medical Journal*, 1970, 44, 1312.

Testing for Tay-Sachs Carriers

SIR,—May I ask for the hospitality of your columns to offer a diagnostic service?

Tay-Sachs disease is a fatal condition, death occurring after about three years of distressing illness. It is due to autosomal recessive inheritance, so both parents must be carriers. If we could identify them, amniocentesis could be done between the 14-16th weeks, in time to offer abortion if the fetus had the disease. Carriers can now be detected as their blood contains amounts of the relevant enzyme (hexosaminidase A) which lie between those of affected infants and of non-carriers. The carrier state is 10 times as common in Ashkenazi Jews as in the general population, so there is a good argument for starting a testing programme among Jews. This has been done in Baltimore, Washington, Toronto, Montreal, and other North American cities.

We have set up a laboratory for such testing and we would be glad to visit groups (in synagogues, colleges, etc.) to obtain 5-ml specimens of blood. By appointment individuals can visit this hospital for testing; relatives of affected children will be particularly welcome. The only exception is of women more than 17 weeks pregnant—that is, too late to permit cell culture in time for safe termination, but still with many weeks to worry in if both her and her husband's tests are in the danger zone.—I am, etc.,

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Laparotomy during Pregnancy

SIR,—While agreeing with Drs. Peter Saunders and P. J. D. Milton (21 July, p. 165) that the risk of precipitating labour following a negative laparotomy during pregnancy is extremely small, it seems illogical that the additional surgical procedure of removal of an easily accessible normal appendix should increase the fetal mortality so dramatically. Furthermore, three fetal deaths in seven patients are small figures on which to base such a