explained by the hypothesis that steroid increases the permeability (Rowland, 1976) of the defective plasma membrane of the muscle fibres of DMD cases (Mokri and Engel, 1975), resulting in additional release of CPK to blood. Similar but less appreciable CPK release phenomena may occur in other MD cases. The CPK clearance factor probably remains constant in these cases. A possible explanation of the rise in CPK in some carriers was proposed by Hughes *et al.* (1971) that there are two populations of carriers—normal and abnormal. The abnormal carriers might respond to steroid in a similar way provided they had similar plasma membrane defects to DMD cases. Other cases of neuromuscular disorders and normal controls probably have no such plasma membrane defect.

The results indicate that steroid-induced CPK estimation can differentiate MD from other muscle diseases. The test may also help to increase the rate of detection of Duchenne carriers in those cases with 'borderline' basal CPK activity and negative electromyographic and muscle biopsy findings.

SHYAMAL SEN and P. K. DAS
Neurology Unit,
Medical College and Hospitals,
Calcutta-700012, India.

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Comparison between microscopical examination of unstained deposits of urine and quantitative culture

Sir,

The conclusions reached by Littlewood and his colleagues in their article comparing microscopical examination of unstained deposits of urine and quantitative culture (*Archives*, 1977, **52**, 894) are not supported by the data presented. Urine was collected in four different ways, as suprapubic, midstream, clean catch, and bag specimens from children aged 2 weeks to 14 years. A surface bacterial count $\geqslant 10^5$ was taken as indicating infection in all urines however collected and regardless of the child's age. However, this criterion of infection is not applicable to urine collected by bladder puncture in which *any* growth indicates infection (Newman *et al.*, 1967; McFayden and Eykyn, 1968; Paterson *et al.*, 1970; Rubin, 1975) nor to bag urines from neonates which often have a surface viable count $\geqslant 10^5$, but are sterile when a suprapublic specimen is obtained (Edelmann *et al.*, 1973).

By not using these generally accepted criteria of infection and noninfection in suprapubic and bag specimens of urine, the authors will have underdiagnosed infection in some cases of the former, and overdiagnosed infection in some cases of the latter. This vitiates completely the correlation found between urinary infection and the number of bacteria seen on microscopy.

MARTIN MONCRIEFF
Department of Paediatrics,
The Radcliffe Infirmary,
Oxford OX2 6HE.

Dr Littlewood comments:

Our study amounted to a simple comparison between the numbers of organisms visualised in the urine deposit and the quantitative culture, irrespective of the method of collection. Our data confirm that the culture result can usually be predicted from the number of organisms visualised on microscopy. It is unfortunate that we referred to urines growing $>10^5$ organisms per ml as 'infected'. There was no implication that the *patients* had a urinary tract infection. We are well aware that any growth from a suprapubic urine is meaningful and bag urines even from healthy infants contain many bacteria (Littlewood, 1971). Whether or not the patients had bacteria within the urinary tract is not the point of the study. Those experienced in the art of urinary microscopy will realise the great benefits that accrue to all if this simple, cheap, interesting, and informative technique is used in the clinic.

J. M. LITTLEWOOD
Department of Paediatrics,
St James's Hospital, Leeds LS9 7TF.

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Discharge of small babies from hospital

Sir,

Early discharge of very small babies from neonatal units could be valuable in reducing mother-child separation. Nursery occupancy figures could be reduced, making it possible for a limited number of nurses to care more

effectively for sick newborns. Traditionally, babies have been kept in hospital until a 'critical' weight has been reached, being retained long after bottle-feeding has been established. Fears about the child's ability to maintain body temperature seem illogical when domestic heating may be as effective as that in hospital.

At this hospital we have practised selective early discharge since January 1975. Up to June 1976 a total of 73 preterm babies <1816 g (4 lb) were allowed home when the following criteria were met: (1) normal clinical signs; (2) stable temperature in an unheated room; (3) adequate feeding established; (4) mother judged to be able to cope with her child in her own home. Close follow-up at the hospital presented few problems.

Integral to this practice has been the vigorous attention to early mother-child contact in the unit. Mothers have been taught to handle, clean, and tube feed their children very soon after birth. The table summarises the results at 3 months. One baby died of pertussis 3 weeks after discharge. 8 other babies were subsequently readmitted with minor problems. No differences between these and the other children could be detected on review in terms of weight or gestational age at discharge, length of time in hospital, maternal age or parity, poverty, or overcrowding. We were unable to trace 5 babies in whom we had attempted to share follow-up with others, the mothers attending neither agency.

Table *Babies of low discharge weight at 3 months*

Weight on discharge	*Emigrated*	*Untraced*	*Re-admitted*	*Satis-factory*	*Total*
1200–1399 g	1	2	0	4	7
1400–1599 g	1	1	1	22	25
1600–1810 g	0	2	8*	31	41
Total	2	5	9*	57	73

*Includes one baby who died in hospital.

In general, mothers were pleased to have their small babies at home and the child almost invariably gained weight faster at home than in hospital. Breast feeding was achieved significantly more often than with our previous practice. We conclude that selective early discharge is practicable and useful in Jamaica and should be more practicable in Britain with better health services than exist here.

M. F. Lowry, M. R. Jones, and M. D. Shanahan
Department of Child Health, University Hospital of the West Indies, Kingston, Jamaica.

Carrying frozen specimens by air

Sir,

The loss of a precious specimen en route to the laboratory must be a bad dream experienced by all research workers. When the journey covers several thousand miles, numerous flights and stop-overs, language and other barriers such as fierce security and customs officials it becomes a veritable nightmare. I have recently spent 3 months in South Korea and other parts of the Far East for which I am greatly indebted to H. J. Heinz and Co. Ltd. I returned with several hundred frozen specimens. They arrived safe, but not without several near disasters. As a result of my experience I write now to offer a few tips which I hope may be helpful for other itinerant workers.

Authorisation. Carry an official letter from the organisation sponsoring the research work emphasising the importance of the specimens remaining frozen. This letter should be officially stamped by the British Embassy in the first country visited and any other with particularly stringent security control.

Thermos. Plastic or non-airtight (for dry ice) metal containers are probably the strongest but condensation may occur on the outside. This can be avoided by covering the thermos with polystyrene.

Freezing. With warning, some airlines will provide dry ice. However, the most reliable sources are usually via the main hospital or from a cold storage company (a permit is sometimes required and can be obtained from the local hospital authority). Restaurants or ice cream sellers are a third possibility. The maximum I had to pay for 10 kg dry ice was £2·50, but this would have been much more had it needed to be flown out from the main city. Experiment on quantities of dry ice required before departure, allowing for tropical climates and flight delays. Arrangements for frozen storage at stop-overs (e.g. hospitals or hotels) should be made in advance. This is rarely available at airports.

Carriage. Label thermos 'MEDICAL-FROZEN-URGENT' etc. However, no amount of labelling seems effective against rough handling, exposure to sun . . . or just being forgotten, so insist on taking your specimens as cabin luggage. This may meet with resistance so it is advisable to approach the manager of the air line and request permission for cabin luggage and . . . very important . . . a free baggage allowance for the thermos.

Bon chance! Bon voyage!

Elizabeth M. Bryan
The Health Centre, 31-35 Monkgate, York YO3 7PB.