without any conversion factor. No difficulties have been encountered in practice with very small doses when suitably calibrated syringes are used, except in the very rare cases when less than 4 units are prescribed. Plastic U-100 syringes are already available and, with care, can be used repeatedly. They cannot at present be obtained through the NHS on FP10 forms, but plastic syringes can even now be prescribed by hospital doctors.

To change to U-100 as the sole strength of insulin will require much planning and organisation and an intensive educational campaign is an essential part. A co-ordinating officer will need to be appointed to organise the many aspects of the changeover and will be supported by a small advisory committee representing the professions, insulin manufacturers, syringe manufacturers, pharmaceutical industry, and diabetic patients. The co-ordinator and the committee will enlist the support and patience of professional groups and diabetics, and will also draw on the considerable experience of colleagues in other countries who have already introduced U-100 insulin.

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Are breast-fed babies still getting a raw deal in hospital?

SIR,—We wholeheartedly endorse the sentiments expressed in your recent paper (13 October, p 891). Furthermore, we would like to elaborate on two points.

Despite its small quantities, colostrum is finely adapted to meet the needs of the newborn infant over the first days of life. It is a dynamic fluid whose composition alters daily. In a recent study (Verrier Jones, Serenyi, and Lister, unpublished data) we examined samples of colostrum on the third, fifth, seventh, and ninth days after birth (table).

The results show that there are progressive increases in fat and lactose, with a reduction in protein and mineral content. In addition, colostrum contains macrophages, which provide its cellular anti-infective properties. Indeed, colostrum has been aptly named "white

blood." Clearly, if an infant is to obtain optimum amounts of colostrum then he must be allowed to feed on demand.

We also wish to point out the fallacy of giving dextrose supplements instead of breast feeds to satisfy the infants' thirst. Studies¹ on breast-milk composition during a breast-feed show that after four to five minutes of feeding there is a steep rise in lipid content. The milk from the early part of the feed provides water and the later milk is richer in calories. Thus by taking a short breast-feed the thirsty infant can use the early milk for satisfying his or her water requirements.

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¹ Crawford, M A, *et al*, *Current Medical Research Opinion*, 1976, 4, suppl 1, p 33.

SIR,—I read the article "Are breast-fed babies still getting a raw deal in hospital?" (13 October, p 891) with interest because, as a midwife, I have spent many years helping women establish breast-feeding at home.

There are other aspects of the management of these breast-fed babies which would also contribute to their disadvantaged state. Sucking time was restricted to three minutes at the beginning—yet this hardly allows the let-down reflex to occur, let alone provides a nutritionally satisfactory feed. Although it is not specifically stated, the continued restriction of total sucking time to 10 minutes at each breast usually goes with this pattern of management.

I would question the practice of giving the breast-fed baby dextrose feeds instead of breast milk during the night. If the bottle-fed babies were to be controls, surely they should have been deprived of milk feeds in the same way?

The current practice of timing the frequency and duration of breasts feeds originated in this country in 1913, when Sir Frederick Truby King's teachings were first published.¹ Has not the time come for hospitals to stop interfering with a process which, in normal mothers and babies, is perfectly orchestrated?

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¹ Truby King, F, *Feeding and Care of the Baby*. London, Society for the Health of Women and Children, 1913.

A and E departments for children

SIR,—In the series of articles by your special correspondent on accident and emergency services, until the one on the staffing of

departments (3 November, p 1119) no mention has been made at all about the problem of children attending such departments. Where numbers are available the paediatric component of the work is from about 23% up to as high as 30% of the total attendances. Apart from medical and surgical conditions which bring them there, the complicated nature of many of the social conditions which are intermixed with these means that these are unlikely to be picked up or certainly unlikely to be dealt with adequately in the sort of atmosphere which applies to the average large accident and emergency department.

I wish that paediatricians would be much more forceful in seeing that the particular needs of such children are properly catered for. If it is not possible to have a paediatric accident and emergency department attached to a children's hospital, it surely should not be impossible in a big city to have one department which may run in parallel with an adult one but which has medical and nursing staff who have paediatric training and interest. Apart from the benefit to children, this would make it much easier to look into the particular problems of accidents and acute illnesses in childhood.

Although a period of paediatric training is included in the senior registrar's four-year programme, for the next few years it is likely that many if not most of the senior registrars will be appointed to consultant posts before they reach this stage and in consequence will have had no postgraduate experience in paediatrics.

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Antibiotic lavage for peritonitis

SIR,—Your recent leading article "Antibiotic lavage for peritonitis" (22 September, p 691) was a timely reminder of an important part of the treatment of patients with severe peritonitis. However, it was remarkable that you did not refer to *operative* antibiotic peritoneal lavage and instead directed attention to postoperative dialysis-type antibiotic peritoneal lavage exclusively. This latter method is highly labour intensive and not without complications, among which the most frequent is fluid and electrolyte overload and the most serious is intestinal fistulation from prolonged contact with large-diameter tube drains. In addition to these practical disadvantages, there is neither clinical nor experimental evidence that postoperative antibiotic peritoneal lavage is necessary after operative antibiotic peritoneal lavage.¹

The efficacy of large-volume, high-concentration operative antibiotic peritoneal lavage has been demonstrated most clearly in catastrophic experimental faecal peritonitis.² The very high survival rates which were achieved by this treatment are persuasive evidence that in clinical practice the combination of operative antibiotic peritoneal lavage and full-spectrum systemic antibiotic support will be adequate treatment for the majority of patients with even the most severe peritonitis. Postoperative antibiotic peritoneal lavage should be added to these simpler measures in the small group of patients in whom it is not possible to remove a potential source of reinfection of the peritoneal cavity.

Operative antibiotic peritoneal lavage is not a widely used technique. To some extent it was discredited by delayed recovery from neuromuscular blocking anaesthesia after aminoglycoside antibiotic lavage.³ Few surgeons considered

Changing composition of colostrum

	Day 3	Day 5	Day 7	Day 9
Total protein (g/l)	29	22	22	23
Whey protein (g/l)	14.68	9.34	9.92	10.31
Lactoferrin (g/l)	4.7	4.0	3.9	2.8
IgA (g/l)	0.82	0.47	0.43	0.36
Human albumin (g/l)	0.63	0.7	0.6	0.61
Fat (g/l)	25.1	28.5	37.1	35.3
Lactose (mmol/l)	59.3	58.3	66.0	67.0
Calcium (mmol/l)	7.4	9.9	8.2	7.4
Phosphate (mmol/l)	4.62	5.78	4.88	5.7
Sodium (mmol/l)	81.2	82.8	72.8	61.1
Potassium (mmol/l)	62.5	44	35.6	48.6