much as it is to be regretted there is in London no Hospital for children.

Within two years of writing this letter West had resigned from the Royal Universal Dispensary and, as Dr Loudon relates, was planning a new hospital, which was to be the Hospital for Sick Children, Great Ormond Street. It was opened in 1852 but Belfast had to wait until 1873 for its Hospital for Sick Children and by then Malcolm had been dead for 17 years.

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loss greater than 500 ml) is low; secondly, that in nulliparae the mean blood loss does not differ significantly in the groups studied; thirdly, that a slight but significant ($P < 0.05$) difference in mean blood loss is found in parous women; and, lastly, that irrespective of parity extra-amniotic priming of the uterine cervix with PG gel does not affect the risk of postpartum haemorrhage.

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¹ Calder, A A, Embrey, M P, and Tait, T, *British Journal of Obstetrics and Gynaecology*, 1977, **84**, 264.

Induction of labour and postpartum haemorrhage

SIR,—Together with my fellow staff members, we felt somewhat uneasy after reading a report by Surgeon Commander P R S Brinsden and Mr A D Clark (23 September, p 855) and Mr I Z MacKenzie's recent analysis (17 March, p 750), which indicate that postpartum haemorrhage is to be considered a complication of labour induction. In a recent letter (28 April, p 1147) Surgeon Commander Brinsden and Mr Clark produce additional data confirming their earlier conclusion, underlining that the risk of postpartum haemorrhage is greater in induced primiparae and that it is probably related to the dosage of oxytocin infused.

We asked our computer to provide us with the results of our last two years' activity and strictly adhered to Mr MacKenzie's methodology for the analysis of the data. To augment labour intravenous (IV) oxytocin was used throughout, and the method applied for labour induction (in all the cases electively—that is, at term and with a ripe cervix) consisted in low amniotomy supplemented by IV oxytocin or IV prostaglandin E_2 (PGE_2) when necessary. Finally, preinduction cervical ripening was attempted according to the method proposed by Calder¹: a single dose (0.5 mg) of PGE_2 suspended in 8 ml 5% hydroxyethyl-methylcellulose (Tylose) gel was instilled into the extraovular space through a transcervically placed Foley catheter and the device was left in situ until it was either expelled spontaneously or withdrawn at reassessment of the cervix. Our routine is to inject 0.2 mg IV methylergometrine (Methergin) just before or immediately after the delivery of the anterior shoulder. When IV oxytocin or PGE_2 has been administered (for induction or augmentation of labour) the infusion is discontinued only after completion of the fourth stage of labour.

Our data are summarised in the table. They indicate, firstly, that the overall incidence of postpartum haemorrhage (estimated blood

Relief of postoperative pain

SIR,—I would agree with Dr M Rosen and Professor M D Vickers's comments (12 May, p 1278) on Dr Jeremy J Church's paper (14 April, p 977) to the effect that the patient is the individual who actually experiences pain, and therefore if pethidine or other narcotic analgesics are being given to counteract it the patient should ideally have control of the dosage. Experience with labouring women has indicated that if they have control of the amount of pethidine they are receiving by continuous intravenous infusion they do not take excessive amounts compared with those receiving the drug by intermittent intramuscular injection, but dose and timing are tailored to their personal need.¹

Sleep precedes significant respiratory depression and an arrangement which ensures that administration ceases when the patient goes to sleep has much to commend it. The Cardiff system is based on microelectronic technology whereas the Leeds method involves a spring clamp with a number of simple mechanical safety features, which puts the dose regulation literally within the patient's own grasp. Even if the cost of the Cardiff apparatus comes down significantly, it remains a matter of conjecture whether problems of serious malfunction will be more likely with electronic than mechanical systems—my hunch would be that mechanical ones may prove more robust.

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¹ Scott, J S, *American Journal of Obstetrics and Gynecology*, 1970, **106**, 959.

Ultrasound estimation of gestational age

SIR,—Mr A F J Atkins (5 May, p 1215) is right in emphasising the importance of accurate dating of pregnancies, and an early ultrasound scan is useful not only for this but also for detecting physical abnormalities in time for termination of grossly abnormal pregnancies. We share his surprise at the method which Professor C J Roberts and others (14 April, p 981) reported using, and support the use of a combination of A and B scans to obtain a precise measure of the biparietal diameter (BPD).

Our main concern, however, is with the accuracy of estimating the duration of gestation from an early BPD measurement. The figures of Professor Roberts and his colleagues suggest that the duration of gestation

based on ultrasound BPD was on average about half a week less than that based on the first day of the last menstrual period (LMP). This leads us to wonder whether the authors have made the common mistake (which we have ourselves made in the past) of using a curve that is 0.5 weeks further to the left than it should be. Campbell and Newman's table¹ gives mean BPD by length of gestation (derived from the LMP of women sure of their dates and who delivered spontaneously within a week of the expected date of delivery). It groups the patients by the number of completed weeks, so that for each group the average duration of their pregnancies is half a week more than the figure in the table.

We compared the BPD- and LMP-derived gestational ages in 165 singleton pregnancies in women with reported cycle lengths in the range 26–30 days (inclusive), whose LMP was not an oral contraceptive withdrawal bleed. The BPD was measured at between 15 and 20 weeks' gestation by the combined A and B scan method. For each patient the BPD-derived gestational age was subtracted from that derived from the LMP. There were three cases with differences of 35, 40, and 41 days, which presumably represented delayed ovulation that would have resulted in long cycles. The differences in the other 162 ranged from –18 to +23 days and had a mean of only –0.3, with a standard deviation of 5.3 days. This implies a 95% confidence interval of the duration of gestation derived from a BPD, measured in this way by skilled operators, of ± 10.3 days, which is an adequate level of precision to be useful for many clinical purposes.

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¹ Campbell, S, and Newman, G B, *Journal of Obstetrics and Gynaecology of the British Commonwealth*, 1971, **67**, 1414.

Overseas aid—urban hospitals or primary care?

SIR,—I am most grateful for the short and obvious answer given by Dr A W Williams in his letter (12 May, p 1286) on the subject of urban hospitals and primary health care in the developing countries. It is unfortunate that Dr J S Yudkin's letter (21 April, p 1087) was based only on the brief information given by Minerva (31 March, p 897) concerning what must be viewed as an integrated health development project.

The rebuilding and equipping of the Mbeya Hospitals were requested by the Ministry of Health in Tanzania as part of a plan to improve health services throughout the southern regions. The Overseas Development Ministry has inputs at all levels of health care in these regions. (1) Villages: An environmental sanitation programme is being mounted in two pilot areas, linked with piped water supplies, with a view to later extension on a district and regional scale. (2) Dispensaries: As part of the national integrated tuberculosis and leprosy programme microscopes and bicycles are being made available to all dispensaries to improve case identification and contact tracing. Land Rovers are also being provided for district TB/leprosy co-ordinators. (3) Health centres: Six new health centres are being constructed in

Postpartum haemorrhage (PPH) and onset of labour in Gent 1976–8

	Nulliparae		Parous women	
	Total	No (%) with PPH	Total	No (%) with PPH
Spontaneous labour ..	650	13 (2.0)	690	8 (1.2)
Augmented labour ..	320	11 (3.4)	251	8 (3.2)
Extra-amniotic PGE_2 gel before induced labour ..	225	6 (2.7)	155	2 (1.3)
Induced labour ..	246	4 (1.6)	377	14 (3.7)

χ^2 test, 3 DF: nulliparae NS; parous women $P < 0.05$.

the Southern Regions and all rural health centres are being provided with Land Rover ambulances to improve the referral of patients to nearby hospitals.

Thus the medical and paramedical expatriate staff assigned to this project will initially spend large periods working in the rural areas during the construction phase of the hospital in Mbeya. In addition, the Overseas Development Ministry has made provision to assist with the recurrent expenditure of the Mbeya Hospital for the first five years, to allow the Government of Tanzania to assimilate slowly the running costs of the project. But, as Dr Williams points out, good preventive medicine is seldom cheap and in this integrated project the allocation of funds for the equipment and transport of the rural components exceeds that of the hospital.

Finally, Dr Yudkin's phrase "appropriate health care" merits some consideration, if only to draw his attention to the paternalism which such expressions convey when made in countries like Tanzania. Who determines the meaning of this word "appropriate"—the rural community receiving the service, the recipient government, the donor agency, an international medical body, or a committee of gurus in London postgraduate medical centres? We have endeavoured in the planning of this project to take the views and recommendations of all such parties into consideration and we will continue to value the encouragement and assistance afforded by many experienced, specialised units in Britain for the problems that assuredly lie ahead. However, the interpretation of "appropriate" cannot be monopolised by any one sector, and I would submit that its interpretation and application need to be constantly reviewed throughout the project.

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SIR,—It is sad to see such a cynical view of the motivations behind the assistance to Tanzania offered by the British Government expressed by Dr John Yudkin (21 April, p 1087). The Tanzanian Government has been in the forefront in committing itself to the distribution of primary care throughout its vast territories. At the same time it seeks to respond to the expressed needs of the local people.

The local administration in southern Tanzania wanted and needed considerable improvements in the utterly inadequate medical care of its people. Considerable consultation and effort were undertaken to modify the expenditure of rebuilding and upgrading the local hospital at Mbeya which formed part of their request. Mbeya, incidentally, is a small focal town to which people come to market and for treatment from vast distances, just as Dr A W Williams pointed out in his letter (12 May, p 1286). What more suitable place to site a central treatment and training centre? The Tanzanian Ministry of Health was able to foster co-operation achieved with the local people on the basis of the hospital. Further local consultations revealed the need for an extensive rural programme, particularly in tuberculosis and leprosy control, mental rehabilitation, and maternal and child health care. It was to a request for assistance for this package that the British Government responded, and Dr Yudkin's suspicions are entirely unfounded.

As paediatric adviser to the Overseas

Development Ministry on the project, I consider that this offers the Tanzanian Ministry of Health a tremendous opportunity not only to respond to local initiative but to achieve a synthesis of cure and prevention and of primary and secondary care that could provide a model for the rest of the country. What is wanted in developing countries, as Dr Williams so rightly points out, is the right balance of cure and prevention, of hospital and primary care. There is a great danger of polarising cure and prevention in the development of medical and health care all over the world. The doctors are being driven back into their hospitals convinced they have no role to play in improvement of health. The primary care workers, poorly trained and unsupported professionally, are in danger of sinking, as Dr Williams says, "to abysmal levels." A team approach is the hope of those involved in this scheme to provide improved medical care to the people of southern Tanzania.

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Coronary artery spasm and migraine

SIR,—We are interested in the letter from Dr William Coppinger on this subject (5 May, p 1219), as the Royal College of General Practitioners' research unit has a pilot study started to investigate the headache histories of patients with coronary angina and disease occurring in the age group between 30 and 60 years.

Besides the points mentioned by Dr Coppinger, both disorders are known to be associated with increased platelet aggregation and instability; catecholamines are thought to play a significant part in both disorders; both are being treated with beta-blocking drugs, and in some centres with relaxation therapy. There are other reasons why both conditions should share common aetiological factors, such as disorders of fat metabolism.

If any of your readers would like to participate in the investigation, and have age and sex registers in their practices with morbidity indices, we would be glad to hear from them.

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The case against neonatal circumcision

SIR,—I have recently retired from some 15 years as the part-time medical officer of a large boys' school. Having read your leading article (5 May, p 1163) about circumcision I regret that I did not keep statistics and that a clinical impression will have to suffice.

At school entry at the age of 11, very few (other than Jews) had been circumcised. Quite a lot, between 10% and 40%, had foreskins which would not easily retract. None of these had any history of pain or difficulty in micturition. I watched the first batches annually and anxiously, but soon learnt that by 14 or 15 nearly all had become normally retractable. I only recall two circumcisions, with an annual intake of about 100. Obviously nearly all of these had preputial adhesions and no phimosis. Probably a vigorous and painful examination at the age of 11 would have found the rare

true phimosis sooner. I thought, and still think, it unjustifiable and indeed contra-indicated. What are the experiences and opinions of other school medical officers?

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Fifty years of penicillin

SIR,—In your leading article (28 April, p 1101) I am cited as the author of the story that Almroth Wright attempted to prevent the publication by Fleming of the suggestion in the original paper that penicillin might have clinical value. I am not the author and have never quoted it. The story probably originated in the fertile imagination of Maurois, and can be found in his biography of Fleming¹ in support of his thesis that Wright's objections to chemotherapy were the main reasons for Fleming's failure to follow up his discovery.

In a recently published paper² I have described previously unpublished experiments recorded in Fleming's notebooks, which show that by the time the first paper was written eight months after the discovery he had come to the conclusion that any form of treatment requiring the intravenous injection of penicillin was bound to fail but that it might have clinical value if applied directly to surface infections. For technical reasons, it was impossible to prove its value for this type of infection by laboratory experimentation. Only those of human beings would suffice. Here, Fleming must have encountered difficulties resulting from the fervent advocacy by Wright's department of at least four different forms of treatment during the preceding 20 years. Since all of them had eventually proved to be failures, the clinicians at St Mary's can have had little enthusiasm for yet another, particularly when told that it consisted of nothing more than broth in which a mould had grown.

It is accordingly not very surprising to find from Fleming's publications that although some trials were carried out they did not start until two years later; the only infections he was allowed to treat were "sinuses and carbuncles," which were not what he wanted; the results were inconclusive; the project soon collapsed; and no details were ever published.

Whether or not this was the real reason for Fleming's failure to prove the value of penicillin, the fact remains that Wright and his opinions of chemotherapy had nothing to do with it—so that if scapegoats are required it was not Wright who was to blame but the clinicians in Fleming's own hospital who were responsible.

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¹ Maurois, A, *The Life of Sir Alexander Fleming: Discoverer of Penicillin*, translated from the French by Hopkins, G, p 137. London, Cape, 1959.

² Hare, R, *New Scientist*, 15 February 1979, p 466.

*.*We regret the misattribution to Professor Hare.—ED, *BMJ*.

SIR,—I refer to your leading article (28 April, p 1101) "Fifty years of penicillin" (especially the last paragraph). It has reminded me of the fact that I may be one of the last few members surviving of the former Nuffield Provincial Hospitals Trust Advisory Council. We used to meet regularly at Oxford during the war. At one of the early meetings I remember well Professor Howard Florey (described then as a