temperature control mechanisms, leading to rapid cooling. The process can be corrected by restoring the blood glucose concentration to normal. Hypothermia is a more common cause of death in the open sea than drowning.

The important points that emerge from these observations are, firstly, that people who drink alcohol, even in moderate amounts, before entering the water are at risk; secondly, that this risk applies to swimmers and sailors alike, summer or winter; and, thirdly, that the public is apparently unaware of these dangers. Perhaps water safety organisations should emphasise the dangers of drinking rather than giving the time-honoured advice about eating before swimming—which has not yet been shown to place the victim at risk.

[1] Plueckhahn, V D, *Medical Journal of Australia*, 1972, **2**, 1183.
[2] Giertsen, J C, *Medicine, Science, and the Law*, 1970, **10**, 216.
[3] Home Office, *Report of the Working Party on Water Safety*. London, HMSO, 1977.
[4] Surf Life Saving Association of Australia, *Resuscitation Report Form Statistics 1974-7*. Sydney, Surf House,1977.
[5] Haight, J S J, and Keatinge, W R, *Journal of Physiology*, 1973, **229**, 87.

Drugs in threatened preterm labour

Spontaneous preterm labour (21 days or more before term) occurs in about 7% of pregnancies in Britain—but 36% of perinatal deaths are in this group.[1] The risks are highest and the problems greater in those women whose labours begin before the 32nd week of pregnancy and whose babies weigh under 1·5 kg, for these very small infants are most vulnerable to the disorders associated with extreme prematurity and they require specialist facilities if they are to survive undamaged.

Many drugs have been claimed to suppress preterm labour only to be discarded in the light of continued experience. In the last few years, however, interest has centred on prostaglandin inhibitors and beta-sympathomimetic agents, both of which have a rational basis of action and are widely used. Indeed, in West Germany alone one million ampoules and six million tablets of one beta-sympathomimetic drug (Feneterol) are said to be used each year[2]—yet this has not been associated with any fall in the numbers of infants of low birthweight.

A recent review[3] looked at 18 clinical trials of hormones, ethanol, or beta-sympathomimetic agents. In only five of these trials were the drugs used therapeutically rather than prophylactically and compared with placebo in a design that was adequate. In only two trials was the drug found more effective than placebo in postponing delivery, and a favourable effect in terms of fetal outcome was found in only one. One of the more satisfactory trials was that of Wesselius de Casparis *et al.*[4] In this double-blind controlled trial preterm labour was postponed in 80% of patients receiving ritodrine (a beta-sympathomimetic drug) compared with 48% in the placebo group.

Perhaps we expect too much of these drugs if the effect sought is delay of labour for several days if not weeks. Inhibiting uterine activity for even a short period may be of great value if the time gained is used to give the child a better chance of survival. The respite may, for instance, be used to give corticosteroids to reduce the risk of respiratory distress syndrome,[5] or to transfer the patient, if necessary, to a centre with special paediatric facilities. Furthermore, the tacit assumption that inhibiting preterm labour is necessarily beneficial should not go unchallenged. Indeed, preterm labour may often be nature's best option, in that the precipitating cause may be acute or chronic impairment of placental function. The condition of the fetus should be carefully evaluated, using cardiotocography, before the decision is made to attempt to inhibit uterine activity.

The drugs used may themselves have detrimental side effects. For example, treatment with prostaglandin antagonists may lead to premature closure of the fetal ductus arteriosus with resultant pulmonary hypertension.[6] Adverse effects on the mother from beta-sympathomimetic agents may include tachycardia, palpitations, and hypotension. Drugs such as ritodrine, which are relatively selective for beta receptors, have fewer cardiovascular effects in proportion to their action on the beta receptors of the myometrium. A combination of a beta-mimetic agent and corticosteroids may cause maternal pulmonary oedema and right-sided heart failure in susceptible patients.[2 7] In such cases there may be an underlying cardiomyopathy; a careful examination for cardiac disease is needed before treatment of this kind is given.

On balance and in terms of fetal outcome the use of drugs to inhibit labour is usually unnecessary, frequently ineffective, and occasionally harmful. Indeed, when all cases of threatened and progressive preterm labour are analysed retrospectively, specific treatment to try to stop labour is found to be of potential value in only relatively few patients, either because of complicating factors indicating a need for delivery or because the patient is in advanced labour at the time of admission. Improvement in perinatal mortality and morbidity is more likely to come from concentrating efforts on the identification of high-risk pregnancies, on early admission, and on measures to ensure that infants at risk are delivered in optimum condition in centres of perinatal skill.

[1] Chamberlain, G, *et al*, *British Births 1970*, vol 2. London, Heinemann, 1978.
[2] Kubli, F, in *Preterm Labour*, ed A Anderson *et al*, p 218. London, Royal College of Obstetricians and Gynaecologists, 1977.
[3] Hemminki, E, and Starfield, B, *British Journal of Obstetrics and Gynaecology*, 1978, **85**, 411.
[4] Wesselius de Casparis, A, *et al*, *British Medical Journal*, 1971, **3**, 144.
[5] Caspi, E, *et al*, *British Journal of Obstetrics and Gynaecology*, 1976, **83**, 187.
[6] Rudolph, A M, in *Preterm Labour*, ed A Anderson *et al*, p 231. London, Royal College of Obstetricians and Gynaecologists, 1977.
[7] Elliott, H R, Abdulla, U, and Hayes, P J, *British Medical Journal*, 1978, **2**, 799.

Common waiting lists

One of the more futile political interventions in the NHS has been this Government's exclusion of private practice from the hospital service.[1] It angered consultants already demoralised by deteriorating standards of hospital care and, paradoxically, has since boosted private practice outside the NHS. Yet, as the profession is tired of pointing out, private beds formed barely 2% of total NHS beds.[2]

The Health Services Board—surely one of the country's least constructive Quangos (Quasi Autonomous Non-Governmental Organisations)—is grinding steadily ahead reducing beds and facilities for private patients (p 146), and just before Christmas[3] the Government announced the first step towards fulfilment of another of its pet objectives: a scheme for a common waiting list for urgent and seriously ill

NHS and private patients to start this month. The Government's political efforts to introduce a common waiting list have always seemed disproportionate to any practical advantage for NHS patients. Consultants have generally admitted acutely and seriously ill patients according to medical priority, regardless of their origins, and the extent of so-called queue jumping by non-urgent private patients is exaggerated by politicians. Indeed, such patients have often been more interested in fixing a definite admission date some months ahead than in demanding an early bed.

But the political deed has been done and so far as consultants are concerned the important part of this agreement between the Joint Consultants Committee and the Secretary of State is that waiting lists remain the individual consultants' responsibility. The consultants' leaders have done well to stick to their guns on that principle. Discussions are to continue, with local investigation and consultation, on extending the common waiting list to patients with non-urgent conditions. Consultants should make sure that their views are made known locally so that their representatives have full support in the discussions with health authorities.

The importance of consultants making their voice heard locally is also emphasised by Mr D E Bolt, chairman of the Central Committee for Hospital Medical Services' Negotiating Subcommittee, in a letter to consultants about the programme for withdrawing private beds. Referring to serious disquiet in the profession about the way the Health Services Board is conducting the withdrawal exercise, he reminds consultants of the importance of challenging the Health Services Board's proposals for withdrawing beds where satisfactory non-NHS private beds are not available. Mr Bolt warns that: "A stage has now been reached at which the beds under attack are not, in any way, surplus to the requirements of private practice, but are essential—particularly for the conduct of serious cases requiring the full range of hospital facilities. The failure of Government to fulfil its side of the Goodman agreement by implementing Section 59 of the Act,[1] which would ensure access to hospital facilities for private patients needing specialised facilities, is making a bad situation worse. However, successful defence of these vital remaining beds demands local knowledge, and that can be provided only by the consultants on the spot. It is our view that, when the board comes to consider the evidence which you have submitted, it will be quite impossible for it to reach a fair conclusion without direct discussion with informed consultants from the districts concerned."

[1] *Health Services Act 1976*. London, HMSO, 1976.
[2] *British Medical Journal*, 1976, **1**, 1170.
[3] *British Medical Journal*, 1979, **1**, 68.

Regular Review

Continuous lumbar epidural analgesia for labour and delivery

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Although pain relief in labour by continuous lumbar epidural block was documented sporadically in the 1930s[1 2] and mid-1950s,[3 4] its application in North America was overshadowed by the preferences for caudal extradural block and spinal analgesia. In Britain and Australia the technique was energetically employed by a handful of enthusiast anaesthetists during the 1950s—among whom the names of Massey Dawkins, Wyman, Steel, Doughty, Bromage, and McCaul are to be honoured—and indeed the now classic monograph[5] on the technique appeared at that time; but regional block for obstetrics, as for other purposes, was virtually an unexplored terrain in Britain. The advent of commercially available disposable equipment—epidural cannulas, bacterial filters, and the like—and a long-acting local anaesthetic of low toxicity, bupivacaine (Marcain), prepared the way for an awakening of interest. In 1968 the Fourth World Congress of Anaesthesiologists was held in London, and its president, Dr (now Sir) Geoffrey Organe, prompted the BBC to mention epidurals in its commentary about the congress. This triggered public interest. The Obstetric Anaesthetists' Association, founded at this time, then played the major part in disseminating enthusiasm for the technique. Interest burgeoned in North America shortly afterwards.

The object of lumbar epidural analgesia is to block the roots of the sensory nerves supplying the uterus (T11 and 12 with contributions from T10 and L1) and the lower birth canal (S2,3,4) by introducing local anaesthetic via a cannula into the extradural space. The extent to which this is achieved is impressive. According to our own data, which match well those of other centres,[6–9] about 85% of patients so treated have been rendered free of pain and 12% have received partial relief; and there is a 3% incidence of total failure. Increasingly, the bulk of failures in our service occur when we attempt the epidural block too late in labour.

By closely questioning each of our patients we gather that 1·5%, though fully satisfied with the analgesia, have a sense of deprivation because they did not contribute sufficiently to their labour and delivery. We respect this as a sincerely held opinion. Nevertheless, very few women decline the offer of another epidural when they return in a subsequent pregnancy. A review of our first 10 000 epidurals (our current total is nearly 15 000) showed that of the 1900 who returned to our hospital for another delivery only 0·4% positively refused to have another epidural. The criticism that an epidural "demeans the dignity" of the woman in labour is characteristic of the intelligent middle-class organisations, yet