prognosis, must naturally always take precedence over a desire to improve the mortality rate.

For all these various reasons we would like to end with a plea that future investigations into the effectiveness of neonatal intensive care undertaken before 1975 should in particular focus on the outcome of the low birthweight group 1500-1999 g. Certainly infants of less than 1000 g are best excluded or dealt with separately.

PETER DUNN
BRIAN D SPEIDEL

Department of Child Health and
Paediatrics,
Southmead Hospital,
Bristol BS10 5NB

SIR,—The article by Dr E S Steiner and his colleagues (8 November, p 1237) raises some vital points for consideration by people who provide neonatal care. New methods of management of the sick newborn must be shown to reduce mortality without adversely affecting the incidence of handicap, thus increasing the number of normal survivors. Dr Steiner's work would seem to indicate that non-interventionist care produces equally good results as intensive care without all its attendant invasions and risks. Our own evidence is at variance with these conclusions.

Prior to the introduction of intensive care at the Royal Maternity Hospital, Belfast, in 1977 our results were similar to those obtained by Dr Steiner. However, since then the mortality rate of babies born in the hospital who weighed 1001-1500 g has halved (table). Babies who weighed 501-1000 g did less well and our results are not significantly different from those obtained in King's Mill. We continue to have reservations about the application of intensive care to this group of extremely low-birthweight infants. Much more information is required before firm conclusions can be drawn.

It is too early yet to say how many of our babies who have survived intensive care will be handicapped. However, we feel that the avoidance or early treatment of those insults such as hypoxia, acidosis, hypoglycaemia, and hyperbilirubinaemia, which are known to cause cerebral damage, should reduce handicap rates. Indeed, some of these disturbances may be transient, so that increasing refinement of intensive care may be needed to detect them—for example, continuous measurement of oxygen tension. Dr Steiner is to be congratulated for providing the results of follow-up of babies surviving non-intensive care management. His results must be used as a yardstick for comparison of the outcome following neonatal intensive care.

The case for neonatal intensive care does not rest primarily on the outcome of the very low-birthweight baby. We believe the main value of neonatal care is to provide the best possible treatment for ill newborn infants of more than 1500 g birth weight who might otherwise die or become handicapped. In the past two years 390 babies of birth weight 1501-2500 g were born in our hospital. Nine of these infants died, four from lethal congenital malformations. In

considering neonatal care we must not only be aware of our present shortcomings, but should also pay due regard to our successes.

GARTH MCCLURE
MARK REID
HENRY HALLIDAY

University Department of Child Health,
Royal Maternity Hospital,
Belfast BT12 6BB

SIR,—The findings of Dr E S Steiner and others (8 November, p 1237) have once again brought into question the validity of intensive treatment in the care of very low-birthweight infants. The results of this study provide an opportunity for highlighting one further consideration which should perhaps be taken into account: namely, the suffering these infants may undergo during their early life.

Intensive methods of neonatal care are invasive and may be accompanied by severe pain or extreme discomfort. The thresholds of pain and the responses to suffering in these small children are unknown. Moreover, there are no references or protocols in standard textbooks of modern neonatal care which consider either the recognition or the management of this possible complication of invasive treatment.

DAVID SOUTHALL

Department of Paediatrics,
Cardiothoracic Institute,
London SW3 6HP

SIR,—The study by Dr E S Steiner and others (8 November, p 1237) is timely. Their conclusion that "scientific and highly skilled medical intervention in the years under discussion (1963-71) made little impact on the outcome for infants of very low birth weight" is extremely important. I hope that the significance of it will be fully appreciated by those who allocate medical resources.

Neonatal care is very expensive. Serious thought, therefore, should be given to re-directing funds to the underprivileged but less emotive specialties like geriatrics and preventive medicine, which have a much greater need and much higher priority.

JULIA BILLINGHAM

Ramsden, Oxon OX7 3AU

Intrinsic hazard of breech presentation

SIR,—The recent paper by Mr John Calvert (15 November, p 1319) raises the interesting question of the role of the classical caesarean section for cases of preterm breech presentation. While not a subscriber to the view that routine elective caesarean section is the answer to the problem of the breech, I take the opportunity to submit that, where there is an independent indication for this procedure in a preterm pregnancy with breech presentation, an inverted T-incision in the lower segment offers an advantageous alternative to the incision of the classical operation. The lower

segment having been horizontally incised in the usual way and the fetal trunk and limbs delivered, the operator gently exerts traction on the head, preferably with the Veit-Mauriceau-Smellie grip; a skilled assistant then completes the upward vertical limb of the T-incision with scissors, cutting just far enough to ensure that the delicate after-coming head is delivered without that delay and dangerous compression against which Mr Calvert very correctly warns us. The repair of the T-incision offers no difficulty and I have not seen any cases of rupture of the uterus in a subsequent pregnancy; the hazards of the classical operation are thus avoided.

The T-shaped incision may also occasionally be helpful in cases of less than 35 weeks' maturity where the presentation is a vertex. If a skilled assistant is not available, the operator will himself perform the T-incision before commencing delivery of the fetus. Minimum anaesthetic induction time is important. As regards the choice of skin incision, the interests of the fetus are not always compatible with the ideal aesthetic requirements for the beaches of the Costa del Sol, and a vertical is preferred to a transverse incision.

A W BANKS

Doncaster Gate Hospital,
Rotherham, Yorks

Successful pregnancy in chronic renal failure

SIR,—I was interested to read the paper by Dr R A Coward and his colleagues (27 September, p 839) concerning the successful outcome of a pregnancy in a woman with severe chronic renal failure.

I was intrigued by the last paragraph, which stated "that with joint care of an obstetrician and nephrologist successful pregnancy is possible. . . ." I would venture to suggest that in management of such patients, and indeed this patient, the services of a neonatal intensive care unit and their staff were also required. Without these facilities, while the patient might have given birth to a live child it is debatable whether the baby would have survived; and while therefore the pregnancy might have been "successful" the outcome would be less so. In other words the management of such a case requires both antenatal, intranatal, and postnatal care of both the patients involved.

Lastly, it struck me as a little unusual that a patient with such severe renal disease should give birth to an infant weighing 1600 grams at 29 weeks, as one would have suspected the baby to have been small for dates. It would have been useful to know the weights of the babies in the previous pregnancies and what tests were done to confirm fetal maturity, and to see whether or not she had been mistaken in her assessment of the time of conception.

MARK REID

Belfast City Hospital,
Belfast BT9 7AB

*.*We sent this letter to the authors, who reply below.—Ed, *BMJ*.

SIR,—We agree with Dr Reid that the help of a neonatal intensive care unit and staff is vital for the successful outcome of such pregnancies, as was the case in this instance.

Comparison of mortality rates of infants weighing 501-1500 g at birth

Birth weight (g)	King's Mill 1972-8			Royal Maternity Hospital 1978-9		
	No of survivors	No of deaths	Mortality %	No of survivors	No of deaths	Mortality %
501-1000	9	28	76	11	19	63
1001-1500	71	39	35	94	21	18
Total	80	67	46	105	40	28