efficiency have precise scientific meanings and should be used correctly.

References


N J Mathers and R D G Milner
University of Sheffield, Sheffield S10 2TH

Drs Kohler and Pritchard comment:

Mathers and Milner are correct to point out that the term diagnostic accuracy has been used loosely in this paper.1 We found that it became very confusing to try to present false positive and false negative data for each type of tumour for each preoperative diagnostic method; Table 2 in our paper evolved as a comprehensible compromise.

We have, however, calculated the diagnostic efficiency of ultrasound for neuroblastoma to be 87-4% (and for Wilms’ tumour to be 89-3% as shown above). The diagnostic efficiency for intravenous urography for neuroblastoma and Wilms’ tumour was 86-2% and 89-4% respectively. This confirms our statement that ultrasound was no more efficient than intravenous urography in the diagnosis of these two tumours.

We used the term diagnostic sensitivity only once when quoting directly from a paper which specifically used this term.

Intensive care and neonatal mortality

Sir,

Professor Yu et al have recently commented that neonatal mortality is no longer an adequate indicator of outcome because deaths arising from perinatal events occur after the first month of life. Their data suggest that postneonatal deaths are significantly more common in the larger low birthweight survivors than in those who weigh 501 to 1000 g at birth. Although the cause of death is given for these infants there is no indication of the extent of intensive care each has received during the perinatal period. Infants of birthweight 1000 to 1500 g have varying and diverse problems, some require intensive ventilatory support, others require little; some have severe nutritional problems; and others graduate through an intensive care nursery with very few so called therapeutic interventions. Yet they are all described together in follow up data. It is difficult to ascertain from current publications which postneonatal problems are due to being born too early or too small and which are, in addition, secondary to intensive care. Critics of intensive care for low birthweight infants are quick to point out the poor outcome for many, while neonatologists are similarly quick to point out the benefits but neither can be sure that this is because of, or despite, intensive care. There are sufficient numbers of low birthweight infants now to allow separation of those who have needed and received intensive care and those who have not been subject to massive therapeutic interventions. I would thus add to the earlier comments of Yu et al and suggest that the efficacy and effectiveness of neonatal intensive care must be judged on the extent of intensive care given in conjunction with the outcome, and not solely on the outcome by birthweight.

G J Reynolds
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Professor Yu and co-workers comment:

Dr Reynolds has pointed out, quite rightly, that it is important to quantitate the intensity and duration of neonatal intensive care that very low birthweight infants receive during their initial hospital admission, and to correlate these factors with their survival and quality of survival.

In the same four year cohort of very low birthweight infants described in the late mortality study,1 66% required assisted ventilation for a median of five days (range 1–80 days) and 55% required parenteral nutrition for a median of nine days (range 1–60 days).2 We have also correlated a range of perinatal events experienced by very low birthweight infants including early morbidity factors and details of therapeutic intervention, with hospital survival3 and quality of survival.4

Other markers of the ‘extent of intensive care required’ referred to by Dr Reynolds are the durations of intensive care and total time spent in hospital. The mean length of stay in the respirator section of the neonatal intensive care unit for the four year very low birthweight cohort was 30 days, in hospital survivors.5 Their mean length of total hospital stay was 70 days (gestation at discharge was mean (SD) 40-2 weeks, (4-2)).6 Thirty five per cent of the survivors in this four year cohort were discharged after 40 weeks’ gestation. The infant mortality after discharge (5-8%) was significantly higher than that in infants who were discharged before 40 weeks’ gestation (1-1%). Major disability defined as cerebral palsy, developmental delay (mental developmental index on the Bayley sales more than 2 SD below the mean), blindness, sensorineural deafness, epilepsy, and hydrocephalus were significantly more common in survivors with prolonged hospital stay compared with the remaining survivors (27% v 15%).

References

Intensive care and neonatal mortality.

G J Reynolds

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