Intrapartum fetal monitoring

Sirs,—Dr Westgate and colleagues’ findings (July 25, p 194) suggest that fetal electrocardiographic waveform (FECG) monitoring reduces the proportion of deliveries for fetal distress. We are doing similar research but so far our results differ from those of Westgate et al; the number of fetal blood samples needed in labour was reduced ten-fold in our study if ST analysis was used to guide management. There was no reduction in the number of operative interventions for fetal distress, and there was an equal number of babies with metabolic acidosis at delivery in each group (pH <7.2; base deficit >10).

There may be several reasons for this difference: firstly, although our management guidelines for labour in the trial are broadly similar to those of Westgate et al, monitoring in the FECG group is based wholly on the ST waveform. Conventional cardiotocography (CTG) is not included since it has not been shown to be useful in successive randomised trials and the search for other indices of fetal well-being should not be hampered by the use of the CTG. Second, the senior obstetrician in our study withdrew 8% of labours from the FECG group. Third, we found that interference with the ECG signal in the second stage of labour from maternal muscles during pushing led to variation in the signal; this reduced the reliability and interpretability of the ST analysis. On average, only 64% of the second-stage traces printed had ST analysis, and a smaller percentage of the second-stage trace was accompanied by a normal-check ECG assuring an acceptable signal for analysis. Prospective assessment is vital in such clinical decisions.