CPAP via single or dual nasal prongs
Managing successful extubation of ventilated premature infants is more art than science and is fraught with difficulty, so that any study which purports to assist in this difficult process is bound to be read with interest. Davis and colleagues (page 82) describe the results of a randomised controlled trial of the use of double versus single nasal prongs after extubation. Significantly fewer babies (24% versus 37%) “failed” extubation. However, the criteria for failure was not reventilation, but included apnoea; an increase of more than 15% in the inspired oxygen concentration; and respiratory acidosis. The failure rate of single prong extubation was thus much higher than in previous studies, which have usually used reventilation as the sole criteria with which to define failure. It is not entirely clear from the study whether or not babies randomised to the dual prong system received CPAP via the “fluidic flip” system; if so, this method has been shown to deliver a slightly higher oxygen concentration than single prong CPAP and this difference may need to be taken into account. Nevertheless, these results provide more support for the single prong system than has hitherto been available. Mazzella and colleagues from Genova, Italy, also found bilateral CPAP to be more effective than single prong CPAP in managing preterm infants with RDS (page 86). Babies given dual prong CPAP required less oxygen for a shorter time than those treated with a single long prong. This group excluded all babies who had been given antenatal steroids or who required intubation at delivery, meaning that their research was limited to a small percentage of neonatal unit admissions, and may not be generalisable.

Providing breast milk for premature babies
All neonatologists agree that fresh expressed maternal breast milk is the ideal food for preterm babies, but few pay more than lip service to the reality of acquiring this precious product. Expressing milk regularly for a sick preterm baby (whose prognosis is uncertain) in a dingy, cold, dirty public space at the end of a busy ward corridor is stressful and unrewarding work for new mothers. Jones et al give some welcome practical advice on improving milks supply (page 91). The key to successful milk production was very frequent expression (at least 5 times a day); simultaneous pumping; prior breast massage; correct sized nipple shields and motivated staff. Very few mothers achieved the 8 expression sessions per day which were planned, and this is a valid observation in itself.

Advanced neonatal nurse practitioners win through against stiff competition
Two studies in this month’s Fetal and Neonatal show that ANNPs are better at two key tasks in neonatal medicine than junior neonatologists (pages 96 and 100). These tasks are neonatal resuscitation, at which they were quicker to achieve intubation when it was required, and the neonatal examination. ANNPs were more reliable at detecting hip and eye abnormalities. The ANNP resuscitation service in Liverpool was only available 9 to 5 on weekdays, so that the ANNP resuscitators may have been more alert than their SHO counterparts, who performed all the resuscitations at night and at weekends. The researchers acknowledge that there may have been hidden differences in the populations as a result but reach the clear and appropriate conclusion that ANNPs are a welcome and effective addition to resuscitation teams.