



Results of the ADEPT study

April 2012

We are pleased to send you the results of the ADEPT Study. Thank you very much for allowing your baby to be part of this research study.

What was the ADEPT study about?

You may remember that the ADEPT study was set up to try and find out more about how best to feed premature babies who were 'growth-restricted' at birth, and were born after scans showing abnormal blood flow (Doppler scans). We were particularly keen to know whether it was better to delay the introduction of milk feeds, or whether it was better to start milk as soon as a baby was stable.

Some details about ADEPT

To be included in the study babies were born before 35 weeks gestation. They were allocated to receive their first milk feed either 'early' – between 24-48 hours after birth, or 'late', on day 6 after birth. All the babies were expected to receive intravenous nutrition while milk feeds were gradually increased, as we know that premature babies cannot tolerate all the fluid they require as milk straightaway. The study was set up to find out whether the babies starting milk feeds early would reach full milk feeds earlier, and be able to stop the intravenous nutrition at an earlier age, or whether starting milk early might lead to complications in the bowel, which would then cause further delays in feeding. The most serious complication is a condition called 'necrotising enterocolitis' which can cause severe inflammation in the bowel, sometimes requiring surgery, and sometimes sadly proving fatal. On the other hand, while intravenous nutrition is very important for sick and premature babies, it too can have complications, particularly with infection, and with inflammation in the liver, causing prolonged jaundice. Also while babies are receiving intravenous nutrition they require more specialised nursing care, in a baby unit providing high-dependency care, so they might be further from home for a longer period. It is more difficult for parents to hold and care for them while intravenous treatment is in place.

RESULTS

404 babies born between April 2006 and May 2009 in 54 hospitals in UK and Ireland took part in ADEPT. 202 were in the 'early' feeding group and 202 in the 'late' feeding group. We found that babies in the 'early' feeding group got onto full milk feeds, and off intravenous nutrition, on average 3 days earlier than those in the 'late' feeding group. The

number of babies with necrotising enterocolitis was similar in each group, particularly for those with the severe form of the disease. There was no difference in the number of babies with a definite infection, but babies in the late feeding group had a slightly higher chance of having inflammation in the liver detected on blood tests. While babies in both feeding groups tended to gain weight slowly, those in the early feeding group had slightly better weight gain before going home than those in the late feeding group.

Other findings in ADEPT

We were pleased to find that even in the 'early' group more than three quarters of the babies received their mother's breast milk in the first feed. In the 'late' group it was almost as many as nine out of ten. We know that breast milk helps to protect the baby against necrotising enterocolitis. By the time they went home, 44% of babies in the early group and 51% of babies in the late group were having their mother's breast milk, as at least part of their diet.

What the results of ADEPT mean for the future

The results of the study show that there is no benefit in delaying the introduction of milk feeds for these vulnerable premature babies as long as they are generally stable. The finding that so many mums were able to produce breast milk for their baby even at 24-48 hours after birth is excellent, and suggests that supporting and encouraging mums to produce milk early will allow babies to get started on milk feeds earlier, and in turn, get to full feeds earlier. This will allow them to come off intravenous nutrition earlier, making it easier to take them out of the incubator for cuddles, and possibly also allowing earlier transfer back to a local hospital nearer home. Our results did confirm, however, that babies

who are born premature and ‘growth-restricted’ are at high risk for developing necrotising enterocolitis (about twice as likely to have this complication as babies who are not growth-restricted). We therefore feel further research is necessary to find strategies to prevent this serious disease.

Publication

The results of ADEPT have been published in *Pediatrics* – a major international scientific journal.

If you would like a paper copy, please write to

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