Vitamin K: The Chaos Continues

The latest survey of policies, practice and outcomes relating to the administration of vitamin K to newborn babies in the United Kingdom and Southern Ireland (Busfield et al 2007) has yet again highlighted the chaotic nature of this area. Amongst other findings, this study showed that there remains huge variation between units in terms of whether parents are offered oral vitamin K, intramuscular vitamin K or a choice of either and, in the case of oral vitamin K especially, there is further variation in the preparation, dosage and regimen that is offered. Despite the existence of a preparation (Konakion MM) which is licensed for oral use, almost half of the Trusts who gave details of the preparation used were continuing to offer unlicensed preparations (Orakay) or giving preparations licensed for intramuscular use (Konakion Neonatal).

Divided Opinions

Just to make the situation even more complex, the authors of this study ~ in common with many of their colleagues ~ do not feel that the NICE (2006) recommendations in this area are particularly excellent. NICE recommend that all babies should be offered IM vitamin K in the first instance; a decision based primarily on the undisputed efficacy of this treatment. Busfield et al (2007) however, are ~ again, like many of us ~ concerned about the potential risks of giving IM vitamin K, and they remain attentive to the distinctions that need to be made whereby different circumstances and feeding methods mean that some babies are at far lower risk of vitamin K deficiency bleeding (VKDB) than others.

Watchful of the success of programmes in the Netherlands (Cornelissen et al 1997) and Denmark (Hansen et al 2003) where parents give their babies a small daily or weekly oral dose of vitamin K, and aware that more parents than ever are declining vitamin K, Busfield et al (2007) call for the urgent development, licensing and promotion of a preparation which would enable more parents to choose this option. They feel that this would go some way to solving the dual problem of the variation that exists between units and parental and professional concerns about the safety of the regimens currently on offer.

A Step in the Right Direction?

I find a number of things about this survey very interesting. The first is the way in which Trusts are maintaining their independence and not necessarily following national guidance, and I am quite heartened by the way in which this is attributed to being a local response to parental request. There may exist tension between the way in which local autonomy creates a 'postcode lottery' and the notion that it would be fairer if we had 'one national guideline for all', but the reality is that, because we are not automatons, there will never be complete geographical parity. Furthermore, parents and midwives are under-represented on national guideline-making bodies, which often means that efficacy and economics are prioritised over risks, feelings and possible alternatives. If parents and midwives are managing to make their voices heard on a local level, then a bit of regional variety may be a small price to pay.

The possible alternative of enabling parents to give their babies small, regular oral doses of vitamin K is certainly an interesting one. While the increase in the range of available choices is to be applauded, we don't know enough about why parents decline vitamin K. How many parents are concerned only about the risk of leukaemia? Are some worried about giving their baby artificial substances by any route? Do some parents also find it hard to believe that the coupling of their baby's physiology and a woman's breast milk is not enough? If either of these are the case for even a proportion of parents, then regular oral supplementation may be no more palatable for them than the injection and research money should also be spent looking at the deeper questions and considering whether there are other as yet unknown factors at work here.

As is so often the case, when a problem is identified (in this case VKDB; the condition formerly known as haemorrhagic disease of the newborn), work is carried out until a solution (vitamin K) is found. The solution is tested for efficacy before being offered around and, as long as the risks are palatable by those making decisions at a population level, it generally becomes the recommendation for all. The story of vitamin K is an interesting one, because circumstances meant that the risks of the solution were broadcast to the public in a way that the (arguably equally problematic) risks of other routine interventions were not. The ongoing chaos can, in many ways, be attributed to a high level of public awareness; let's hope that this awareness continues until we understand the full picture and have a range of options that will meet everybody's needs.

Busfield, A, McNinch, A and Tripp, J (2007). Neonatal vitamin K prophylaxis in Great Britain and Ireland: the impact of perceived risk and product licensing on effectiveness. Archives of Disease in Childhood, 92: 754-758.

Cornelissen M, von Kries R, Loughnan P, et al (1997). Prevention of vitamin K deficiency bleeding: efficacy of different multiple oral dose schedules of vitamin K. European Journal of Pediatrics, 156(2): 126–30.

Hansen KN, Minousis M, Ebbesen F (2003). Weekly oral vitamin K prophylaxis in Denmark. Acta Paediatrica 92(7): 802–5.

National Institute for Health and Clinical Excellence (NICE) (2006). Routine postnatal care of women and their babies (CG37). London: NICE.