

## Vitamin K Informed Consent and Waiver

Vitamin K injections are routinely given to newborns when they are born in the hospital, to prevent vitamin K deficiency bleeding (VKDB). VKDB presents in three different ways:

- Early VKDB, occurring on the first day of life, is rare and confined to infants born to mothers who have received medications that interfere with vitamin K metabolism. These include the anticonvulsants phenytoin, barbiturates or carbamazepam, the antitubercular drugs rifampicin or isoniazid and the vitamin K antagonists warfarin and phenprocoumarin. The reported incidence in infants of mothers who have received such medications without vitamin K supplementation is between 6 and 12 per cent
- Classical VKDB occurs from one to seven days after birth and is more common in infants who are unwell at birth or who have delayed onset of feeding. Bleeding is usually from the umbilicus, gastrointestinal tract, skin punctures, surgical sites and uncommonly in the brain. Severe intracranial hemorrhage may occur suddenly and result in death or severe CNS dysfunction. The incidence reported in the literature is variable, with rates of 0.25 to 1.5 per cent in early reports of both sick and well infants to 0 to 0.44 per cent in recent reviews predominantly of well infants. There is considerable uncertainty about the true rates of classical VKDB since full diagnostic criteria outlined above were seldom met.
- Late VKDB occurs from eight days to six months after birth, with most presenting at one to three months. It is almost completely confined to fully breast-fed infants. Several recent reports emphasize a late form of hemorrhagic disease occurring at 4-6 weeks of age, often manifest as intracranial bleeding, and occurring exclusively in breast-fed infants who did not receive vitamin K as newborns or have fat malabsorption. Other sites of bleeding include skin, gastrointestinal tract, umbilicus or surgical sites. About 30 per cent have minor bruising or other signs of coagulopathy (warning bleeds), preceding the serious hemorrhage. Infants at risk may have signs of predisposing cholestatic liver disease such as prolonged jaundice, pale stools, and hepatosplenomegaly. The rate of VKDB in infants who did not receive vitamin K at birth has been reported as between five and 20 per 100,000 births. The mortality is about 30 per cent (Loughnan and McDougall 1993).

Not all parents are comfortable with having their newborns injected with vitamin K. This document tells you the reasons vitamin K is routinely given to all newborns born in hospital. The disorders above are almost completely preventable if the vitamin K injection is given at birth.

Your midwife can provide a form of oral vitamin K. K-Quinone-is an oil soluble source of vitamin K-1 (phytonadione), the non-toxic natural form of vitamin K

present in plants. K-Quinone is extracted from alfalfa, nettles and green tea. Each drop provides 2 mg of vitamin K-1 activity. This particular product has not been studied by the medical community and may provide some degree of protection against VKDB, although it will probably not be effective against vitamin K deficiency caused by a baby's inability to metabolize fats. The vitamin K is given at birth, at one to two weeks of age, and at six weeks of age.

The mother can purchase this vitamin K when she orders her birth kit and take it herself if she wants to increase vitamin K levels in her breastmilk. Mothers given oral supplements of 0.5 - 3.0mg vitamin K per day produce substantially increased breast milk vitamin K levels.

If you do not want your baby to receive vitamin K please sign and date below. If you want your baby to receive injectable vitamin K you must arrange with a doctor to have the vitamin K injection present at the birth, or to have your baby seen by the doctor in the baby's first week of life, and given the injection at the physician's office.

If you want to use oral vitamin K, please tell your midwife.

-----  
I/we refuse to give vitamin K to our new baby. I/we have read the preceding information and understand this could result in serious injury or even death.

\_\_\_\_\_  
Parents' signatures

\_\_\_\_\_  
Date

I/we agree to have the vitamin K injection and will arrange for a doctor to do this.

\_\_\_\_\_  
Parents' signatures

\_\_\_\_\_  
Date

I/We have decided to use oral vitamin K for our baby. We agree to be sure that all three doses are administered at the appropriate intervals of birth, one to two weeks, and at six weeks.

\_\_\_\_\_  
Parents' signatures

\_\_\_\_\_  
Date