

Prophylactic Vitamin K Administration - Informed Choice and Consent Document

Please read the following information and discuss any questions that you have with me before signing below.

What is Vitamin K?

Vitamin K is necessary for blood clotting. Without adequate Vitamin K, a newborn may develop Vitamin K Deficiency Bleeding (VKDB). Vitamin K must either be ingested or produced in the human body by a type of bacteria that colonizes the intestinal tract. Babies are not born with these bacteria. It takes a healthy infant approximately 4 days to develop adequate Vitamin K levels (Sutor, 1999). However, some infants may not produce adequate levels until they are several months old. The infants levels can only be determined by blood testing. Infants are able to obtain a small amount of Vitamin K through breastfeeding. However, breastmilk alone is not sufficient to prevent VKDB in infants.

How would VKDB affect my baby?

VKDB is a potentially life threatening disease that affects approximately 1 in 5,000 (Victoria & Haecke, 1990) to 1 in 10,000 babies (Von Kries, 1992). When as baby has VKDB, s/he is unable to properly stop bleeding.

Symptoms include, but are not limited to:

- Bruises, especially unexplained bruises
- Bleeding from the mouth, nose, umbilicus, circumcision site, and anus
- Hematomas
- Blood in the urine, stool or vomit
- Poor feeding
- Prolonged bleeding from puncture sites
- Difficulty breathing
- Bleeding within the abdomen or chest
- Enlarged liver.

VKDB can also cause intracranial hemorrhage. Of the babies who contract late onset VKDB (after 8 days of life), half will have severe brain damage or death as the result of intracranial bleeding.

Symptoms of intracranial hemorrhage include, but are not limited to:

- Unusual sleepiness
- Apathy
- Irritability
- Agitation/screaming
- Vomiting
- Tense fontanel
- Spasms
- Touch sensitivity
- Unusual posture.

All babies are considered to be at-risk for VKDB. However, some babies fall into higher risk categories than others. For example, the risk is higher for babies whose mothers take some types of drugs, like anticonvulsants, anticoagulants or tuberculosis medications, during pregnancy. It is also higher for babies who have had difficult deliveries, such as premature births, breech births, vacuum

extraction, forceps, asphyxia and C-Section. Babies who have liver disease or difficulty feeding are also at higher risk. If your baby has a difficult birth, bruising or hematomas or needs resuscitation, we will recommend that s/he receives prophylactic Vitamin K. It is also advisable to get a prophylactic Vitamin K for your baby if s/he will have any type of surgery as an infant, including circumcision.

How is Vitamin K administered?

Vitamin K can be given orally or through an injection. Vitamin K injections, given at birth or anytime thereafter, are considered to be the most effective because one intramuscular dose protects the infant for a much longer period than a single dose of oral Vitamin K. We also know the most about Vitamin K injections because more studies have been performed using it. The oral route requires several doses. It is usually administered at birth, 1 week and at 4 weeks of age, although some sources state administration should be weekly until the baby 2 months old. Oral administration is not effective in infants with absorption problems. The timing and exact dosage of oral Vitamin K for maximum effectiveness have not been well-documented through research. Because of the uncertainty in oral administration I do not offer it.

Are there risks to giving prophylactic Vitamin K?

Some studies have demonstrated a correlation between Vitamin K injections and the development of certain types of childhood leukemia. Other studies have found no correlation. Additionally, other studies have proposed that infants who have high amounts of clotting enzymes in their blood have an increased risk of dying from bacterial meningitis. It is not yet known if the clotting enzymes produced via Vitamin K are a contributing factor.

Some parents and health care providers are concerned about administering Vitamin K through injections or oral doses because the doses result in extremely elevated Vitamin K levels in the baby's blood. It is unknown if these elevated levels pose a health risk to the infant, although cancer has been suggested as a potential risk.

The risks of administering prophylactic Vitamin K are mainly the risks of injection: local pain at the injection site; injury to vessels and nerves; abscesses; osteomyelitis; hemorrhage (in an infant with a bleeding disorder); and inadvertent IV injection that can lead to cardiac or respiratory failure. The risks of oral administration include: bitter taste; inhalation of the oil that could lead to choking, airway obstruction or pneumonia; and uncertain protection resulting from the inability to know exactly how much Vitamin K was ingested and absorbed. For any type of administration the risks include anaphylactic response to Vitamin K and unknown effects of high plasma levels of Vitamin K.

I have read and understand the above information, and have had the opportunity to ask questions of my midwife. I understand that I can change whatever decision I make at any point in the future prior to the administration of Vitamin K. I have decided that I want the following care for my baby:

I want my baby to receive the Vitamin K intramuscular injection.

I do not want my baby to receive Vitamin K. I have been given a list of signs and symptoms of VKDB, and I understand that not all babies who develop VKDB develop any warning signs or symptoms.

Mother's name (print)

Signature

Date

Father's name (print)

Signature

Date