



Nebraska Chapter

MEMORANDUM

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To: Members, Nebraska Chapter, AAP
From: Gina DiRenzo-Coffey, MD
Date: July 7, 2014
Re: Vitamin K Refusal

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Are you seeing more parents refusing vitamin K administration for their newborn infants in your practice? In 2013, vitamin K refusal received national attention after a cluster of four cases of late VKDB (vitamin K deficiency bleeding) occurred in Tennessee

(<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6245a4.htm>). In these cases, the parents declined vitamin K injection at birth, primarily because they were unaware of the risks of VKDB and the health benefits of vitamin K administration at birth. Three of the four infants had diffuse intracranial hemorrhage and the fourth had gastrointestinal bleeding. VKDB can be prevented by a single intramuscular injection administered at birth, which the AAP has recommended since 1961.

Recommending and encouraging vitamin K administration to parents in Nebraska is essential in order to prevent VKDB. Parents may decline for a variety of reasons including concerns over pain of the injection, an impression that it's unnecessary, or being misinformed regarding VKDB. Some parents may refuse vitamin K for their newborns because of a 1992 report which raised concern for an increased risk of leukemia in infants receiving vitamin K. The finding of an association with either leukemia or general childhood cancer has not been replicated in other studies. The CDC has helpful educational information for providers and parents on their website (<http://www.cdc.gov/ncbddd/vitamink/index.html>), including some powerful stories written by parents who chose to decline vitamin K administration for their babies. Being prepared to speak to parents regarding VKDB may help reduce the likelihood of vitamin K refusal.

A less desirable option to intramuscular vitamin K administration is to provide vitamin K orally. Oral vitamin K administration has several complicating issues. First, there is no oral formulation of vitamin K commercially available. The injectable solution can be given orally, but many community pharmacies may not have it readily available. Further, oral absorption may not be reliable in infants with gastrointestinal illness or liver disease. Finally, three oral doses of 2 mg are required in order to achieve adequate prophylaxis: at birth, at 2 weeks of age, and at 8 weeks of age. The first dose is given in the hospital, provided the baby isn't born at home or in a birthing center. It may be preferable for the second and third doses to be given in the patient's primary care provider's office (rather than at home) to ensure compliance and appropriate administration. For the above reasons, oral vitamin K is not felt to an equivalent alternative to the intramuscular route.

For questions or concerns regarding vitamin K refusal, please contact Brady Kerr, MD @ Brady.Kerr@nmhs.org