ASHFORD & ST PETER'S HOSPITALS NHS TRUST
WOMEN'S AND CHILDREN'S SERVICES

POLICY FOR VITAMIN K ADMINISTRATION IN NEWBORN INFANTS

Background
Newborn infants have low concentrations of Vitamin K and are at risk of a potentially severe bleeding disorder called Haemorrhagic Disease of the Newborn (HDN) if not given Vitamin K supplements.

There are 3 types of HDN (Vitamin K deficiency bleeding)

1. **Classical HDN (Day 1-7)** results in bleeding in the first week after birth. Bleeding may occur from/in the rectum, mouth, nose, circumcision site and, occasionally the brain.

2. **Early onset HDN (<hours) - very rare.** Occurs in the babies of mothers taking anticonvulsants or antituberculosis treatment. This is prevented by prescribing oral supplements of Vitamin K during late pregnancy (36 weeks onwards) and giving IM Vitamin K to the baby straight away after birth

3. **Late HDN (7 days to 3 months, with a peak at 4-6 weeks).** Small warning bleeds occur commonly, but may not be recognised.

Without Vitamin K prophylaxis there would be an estimated 10-20 cases of intracerebral haemorrhage in the UK annually and 4-6 babies could die. This risk is eliminated when vitamin K supplementation is given

We therefore recommend that all new born babies should have Vitamin K, preferably by intramuscular injection.

Babies at higher risk of being affected by HDN include those

- **Premature**
- **Exclusively breast fed**
- **With malabsorbtion**
- **With liver disease**
- **With a traumatic birth**
- **Are babies of mothers taking anticonvulsants**
- **Are babies of mothers with significant liver disease**

For Babies over 36 completed weeks and weighing more than 2.5kg

- Konakion MM Paediatric can be used intramuscularly (IM) as well as orally for the prophylaxis of vitamin K deficiency bleeding (VKDB) in healthy neonates of 36 weeks gestation or older.
- A **1mg IM dose** of Konakion MM Paediatric to healthy neonates 36 weeks gestation or older will require administration of a **0.1mL** volume (i.e. half of the ampoule volume)
- If the parents refuse intramuscular injection, then oral Konakion MM Paediatric **2 mg** should be given preferably within 2 hours of birth.
- The oral dose should be followed by a second dose of 2mg at 4-7 days.
- Exclusively breast-fed babies who received oral Konakion at birth: In addition to the doses at birth and at 4-7 days, a further 2mg oral dose should be given 1 month after birth.

For Babies under 36 completed weeks and high risk babies (see page 1 for higher risk groups) and less than 2.5kg

- Intramuscular Vitamin K is preferred at any gestation due to prolonged effect and no requirement to given extra oral doses under normal circumstances.
- If it is impossible / undesirable to give it this way, then it is optional to give Vitamin K IV or it may have been given iv in another unit. **However** any baby given IV Vitamin K requires either a further single IM dose as below

OR

- Further oral doses to be given at 7-10 days (when receiving 120ml/kg/d or more of enteral intake (any type) and at 28 days if receiving MEBM (not formula)

0.4mg/kg IM or IV at birth		
Weight of baby	**Dose of Vitamin K**	**Volume of 2mg/0.2ml injection**
0.5-1kg	0.4mg	0.04mls
1.01-1.5kg	0.6mg	0.06mls
1.51-2.0kg	0.8mg	0.08mls
2.01-2.5kg	1mg	0.1mls

Documentation

All doses on the Neonatal Unit should be prescribed on a drug chart.

The second and third oral doses should be given by a health care professional or the parents if the baby is no longer in hospital.

This should be recorded by attaching the label from the pack into the baby's Red Book. The Midwife / Health visitor should ensure that this has been done.

Information about adverse event reporting can be found at www.yellowcard.gov.uk
Adverse events should be reported to Roche Products Limited. Please contact UK Drug Surveillance on: 01707 367554

References

Konakion MM paediatric 2mg/0.2ml – Summary of product characteristics http://www.medicines.org.uk/emc/medicine/1699 ACCESSED 21/08/17

British National Formulary 2016/17 BNF

National Institute of Clinical Guidance 2014 – Routine postnatal Care of women and their babies. Clinical Guideline 37, July; NICE:London

VITAMIN k deficiency bleeding after NICE guidance and withdrawal of kanakion neonatal. Busfield A, et al, Archives of diseases of Childhood 2013, BPSU Study 2006-2008 Vol 98 p 41-47

Oxford University Hospitals NHS Trusts Vitamin k guideline http://www.ouh.nhs.uk/patient-guideline/leaflets/library.aspx ACCESSED 24/08/17

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