

Vitamin K (phytomenadione) for neonates

BRIEF ADMINISTRATION GUIDE

For detailed information refer to [The Australasian Neonatal Medicines Formulary \(ANMF\) Vitamin K₁ guideline](#)



Note: Shaded text indicates where Health NZ Waikato practice differs from ANMF

1. Medicine

1.1. Indications

- Prophylaxis and treatment of vitamin K deficiency bleeding including haemorrhagic disease of the newborn.
- **Supplementation in conjugated hyperbilirubinaemia**

1.2. Route and Presentation

Intramuscular, oral, intravenous

- Supplied as phytomenadione 2 mg/0.2 mL ampoule
Note: also available as 10mg per 1mL amp, which may be supplied if the 2mg ampoule is unavailable
The contents of the ampoule can be administered orally.

1.3. Dose

Prophylaxis of Vitamin K deficiency (IM route preferred)

Regimen	Gestational Age	Dose	Timing
Intramuscular Recommended route Single IM injection	Term	1mg IM	Soon after birth
	Preterm < 1500g	0.5mg IM	Soon after birth
Oral If vitamin K is consented for, but parents have declined IM route. Three oral doses	Same dose for all neonates	2mg Oral	Soon after birth
		2mg Oral	3-7 days old
		2mg Oral	6 weeks old
	If neonate vomits or regurgitates within 1 hour of oral dose, or if diarrhoea occurs within 24 hour, this dose needs repeating		
Intravenous Only use if unable to give IM or orally	Same dose for all neonates	0.3 mg/kg	Soon after birth Repeat weekly until IM /oral Vit K given

Treatment of Vitamin K deficiency bleeding (IV route)

- 1 mg as a slow IV bolus (maximum 1 mg / minute).
- Dose can be repeated in 4-6 hours if required.

Supplementation in treatment of conjugated hyperbilirubinaemia

Note: given in combination with other fat soluble vitamins (refer to [Conjugated Hyperbilirubinaemia guideline](#))

- 2 mg once a day (IV or oral) and increase according to INR.

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2. Preparation and Administration

2.1. Compatible fluids

Glucose 5%

2.2. Administration Method

Intramuscular administration

- Administer appropriate dose for weight, as undiluted solution, into the midpoint of lateral thigh muscle in the leg
- Wash injection site well before needle insertion if mother is Hepatitis B positive

Note: IM Vitamin K can be given to neonates with confirmed or probable inherited bleeding disorders (such as Haemophilia and Von Willebrand Disease) providing pressure to the injection site is maintained for a minimum of 5-10 minutes.

Intravenous Infusion

- Draw up required dose and administer undiluted by slow intravenous injection (not exceeding 1 mg / minute)
- If required e.g. dose <1mg, dilute 2 mg (0.2 mL) up to 2 mL with glucose 5% to make a 1 mg/mL solution

Oral

- Draw up 2mg (0.2 mL) into the dispenser provided in the packet or an oral syringe
- Administer the contents of the dispenser or syringe directly into the mouth (or orogastric tube)
- Follow dose with fluid e.g. breast milk to ensure it is swallowed
- Monitor for regurgitation or vomiting in the first hour. If this dose is regurgitated or vomited within 1 hour of administration, or if diarrhoea occurs within 24 hours, the dose needs to be repeated.

2.3. Monitoring

- Observe injection site for bleeding or any reaction
- Monitor prothrombin time when treating clotting abnormalities and INR if treating hyperbilirubinaemia

2.4. Storage and Stability

- Discard any unused ampoule contents remaining

2.5. Competency for Administration

This procedure is carried out by, or under, the direct supervision of a registered nurse/registered midwife who holds current Health NZ Waikato Generic IV / Medicine Administration skills verification.

2.6. Guardrails

N/a

3. Associated Documents

- [Vitamin K Administration in the Newborn](#), Ref.2289. Women's health guideline
- [Vitamin K for Newborn Babies to Prevent Serious Bleeding](#) (KidsHealth)
- [Management of Conjugated Hyperbilirubinaemia in Newborn Intensive Care Unit](#), Ref. 1486

4. References

- ANMF Consensus Group. Vitamin K1 (phytomenadione) Drug Information Sheet, 2022. Available from: www.anmfonline.org/wp-content/uploads/2023/08/Vitamin-K_ANMFv3.0_20230810-1.pdf
- New Zealand Formulary for Children (NZFC) v146. Phytomenadione. Available from: https://www.nzfchildren.org.nz/nzf_5405
- Health NZ Auckland clinical guideline "Jaundice – investigation of prolonged". November 2023 Accessed via <https://www.starship.org.nz/guidelines/jaundice-investigation-of-prolonged/>

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- Notes on Injectable Drugs. New Zealand Hospital Pharmacy Association (Inc). Accessed via www.noids.nz/wp-content/uploads/2020/11/Phytomenadione-S.pdf
- Pharmaco (NZ) Ltd. Konakion® solution for injection Data Sheet. November 2018. Available from: <https://www.medsafe.govt.nz/profs/datasheet/k/Konakiontabinjoralsoln.pdf>
- Phelps SJ, Hagemann TM, Lee KR, Thompson AJ. The Teddy Bear Book: Pediatric Injectable Drugs. 11th edition. American Society of Health-System Pharmacists; 2018.
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Document Ownership

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