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| Alert | Vitamin A is expressed as microgram retinol activity equivalents (RAE) or international units (IU) or units. 1 microgram RAE = 1 microgram retinol = 3.3 units of retinol. ⁽³⁾ 1 microgram colesterciferol = 40 international units (or units) of vitamin D3. ⁽³⁾ | | | | | | | | | | | | | | | |
| Indication | Prevention of vitamin deficiency in infants born < 35 weeks gestation or < 2 kg birth weight | | | | | | | | | | | | | | | |
| Action | Multivitamin supplement | | | | | | | | | | | | | | | |
| Drug type | Multivitamin | | | | | | | | | | | | | | | |
| Trade name | Pentavite Infant liquid 0-3 years | | | | | | | | | | | | | | | |
| Presentation | Oral liquid Each 0.45 mL contains: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Vitamin A (from retinol palmitate 714 microgram)</td> <td>390 microgram RAE (1287 units of retinol)</td> </tr> <tr> <td>Vitamin B1 (as thiamine hydrochloride)</td> <td>540 microgram</td> </tr> <tr> <td>Vitamin B2 (riboflavin) (from riboflavine sodium phosphate 1.1 mg)</td> <td>810 microgram</td> </tr> <tr> <td>Vitamin B3 (nicotinamide or niacin)</td> <td>7.1 mg</td> </tr> <tr> <td>Vitamin B6 (pyridoxine) (from pyridoxine hydrochloride 135 microgram)</td> <td>111 microgram</td> </tr> <tr> <td>Vitamin C (ascorbic acid)</td> <td>42.8 mg</td> </tr> <tr> <td>Vitamin D (colesterciferol)</td> <td>10.1 microgram (400 units)</td> </tr> </table> | | Vitamin A (from retinol palmitate 714 microgram) | 390 microgram RAE (1287 units of retinol) | Vitamin B1 (as thiamine hydrochloride) | 540 microgram | Vitamin B2 (riboflavin) (from riboflavine sodium phosphate 1.1 mg) | 810 microgram | Vitamin B3 (nicotinamide or niacin) | 7.1 mg | Vitamin B6 (pyridoxine) (from pyridoxine hydrochloride 135 microgram) | 111 microgram | Vitamin C (ascorbic acid) | 42.8 mg | Vitamin D (colesterciferol) | 10.1 microgram (400 units) |
| Vitamin A (from retinol palmitate 714 microgram) | 390 microgram RAE (1287 units of retinol) | | | | | | | | | | | | | | | |
| Vitamin B1 (as thiamine hydrochloride) | 540 microgram | | | | | | | | | | | | | | | |
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| Vitamin C (ascorbic acid) | 42.8 mg | | | | | | | | | | | | | | | |
| Vitamin D (colesterciferol) | 10.1 microgram (400 units) | | | | | | | | | | | | | | | |
| Dose | Routine supplementation in preterm or low birthweight infants 0.45 mL daily. NOTE: Dose not based on weight. Continue up to 12 months corrected age. Cholestasis Refer to Vitamins in cholestasis formulary. | | | | | | | | | | | | | | | |
| Dose adjustment | | | | | | | | | | | | | | | | |
| Maximum dose | 0.45 mL | | | | | | | | | | | | | | | |
| Total cumulative dose | | | | | | | | | | | | | | | | |
| Route | Oral or intra-gastric tube | | | | | | | | | | | | | | | |
| Preparation | No preparation required | | | | | | | | | | | | | | | |
| Administration | Do not shake the bottle. Administer undiluted or mixed with a small amount of milk into infant's mouth through a feeding teat or via intra-gastric tube. | | | | | | | | | | | | | | | |
| Monitoring | | | | | | | | | | | | | | | | |
| Contraindications | Not yet tolerating full feeds | | | | | | | | | | | | | | | |
| Precautions | Direct administration into the mouth may cause choking and apnoea | | | | | | | | | | | | | | | |
| Drug interactions | | | | | | | | | | | | | | | | |
| Adverse reactions | | | | | | | | | | | | | | | | |
| Compatibility | | | | | | | | | | | | | | | | |
| Incompatibility | | | | | | | | | | | | | | | | |
| Stability | Use within 9 weeks after opening. | | | | | | | | | | | | | | | |
| Storage | Store below 25°C. Protect from light. Refrigerate after opening. | | | | | | | | | | | | | | | |
| Excipients | Sodium saccharin, pineapple flavour | | | | | | | | | | | | | | | |
| Special comments | | | | | | | | | | | | | | | | |
| Evidence | No studies were located which examined the impact of multivitamin supplementation on any outcomes in low birth weight (LBW) infants. Policy statements from organisations in developed countries recommend providing multivitamin supplementation with a neonatal multivitamin preparation containing vitamins A, D, C, B1, B2, B6, pantothenic acid and niacin to all LBW infants receiving human milk from birth until the infant attains a weight of 2000 g. Many units provide a multivitamin preparation to all LBW infants until 6 to 12 months chronological age. | | | | | | | | | | | | | | | |

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| | <p>Vitamin D – There is evidence of reduced linear growth and increased risk of rickets in babies with a birth weight < 1500 g fed un-supplemented human milk. There is no consistent benefit of increasing the intake of vitamin D above 400 units per day.</p> <p>There are no clinical trial data on the effect of vitamin D on key clinical outcomes in infants with a birth weight > 1500 g.</p> |
| Practice points | <p>Pentavite® contains vitamin D, it may be used for later preterm or term infants at risk of vitamin D deficiency. However, this may be better managed using single ingredient vitamin D preparations (see Colecalciferol formulary).</p> <p>For preterm infants the dose may be halved (i.e. 0.23 mL) and given twice daily to improve tolerability.</p> <p>Infants with cholestasis should receive additional vitamin D supplementation until cholestasis/fat malabsorption resolves (see Colecalciferol formulary). Other fat soluble vitamins may also require supplementation.</p> |
| References | <ol style="list-style-type: none"> 1. Product Information: Penta-Vite Multivitamins Oral Liquid. MIMSONline. Accessed 18/07/2014. 2. Optimal feeding of low-birth-weight infants, technical review. Karen Edmond, MBBS, MSc (Epidemiology), PhD. London School of Hygiene and Tropical Medicine, London, U.K. Rajiv Bahl, MD, PhD. Department of Child and Adolescent Health and Development, WHO, Geneva. 3. https://dietarysupplementdatabase.usda.nih.gov/Conversions.php. Accessed on 17 November 2021. 4. https://www.pentavite.com/product/multivitamin-infant-liquid/. Accessed 04/07/2022. |

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Authors Contribution – Current version

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