Table IIb. Oral anticoagulants used in pediatric thrombosis

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Drug** | **Treatment Dose** | **Monitoring** | **Mechanism** | **Comments** |
| **Oral anticoagulants** |  |  |  | For long-term management of thrombosis, oral anticoagulants are more convenient and less expensive, and the therapy of choice except in cancer patients or women who may become pregnant. |
| Warfarin (Coumadin) | Initial dose of 0.2 mg/kg/day (maximum 10 mg). Adjust as needed to achieve INR of 2-3.  Average final therapeutic doses vary by age, but have high intra-individual variability, so dose titration is necessary in all patients:  Infants: 0.31 mg/kg/day  1-5 years: 0.16 mg/kg/day  6-10 years: 0.13 mg/kg/day | Compared with adults, infants and young children tend to require higher maintenance doses and frequent dosage adjustments. INR should be measured daily until within therapeutic range of 2-3, then weekly until stable for two or three consecutive values. Patients taking warfarin should undergo additional INR monitoring whenever a new medication is started (or an existing one stopped) if it has known drug-drug interactions (see comments column). | Interferes with vitamin K metabolism and thereby decreases plasma concentrations of the vitamin-K dependent active forms of factors II, VII, IX, and X. | Must not be used during pregnancy. Dietary education is necessary to maintain a stable intake of vitamin K. Some advocate a small daily dose of vitamin K to make average daily intake less variable and thus allow more stable INR values.  Anticoagulant effects may decrease with coadministration of oral contraceptives, griseofulvin, rifampin, many other drugs, and of course with vitamin K.  Other drugs *increase* the effect of warfarin, including oral antibiotics (especially metronidazole), salicylates, sulfonamides, anabolic steroids, and many others. |
| Phenprocoumon, acenocoumon | Loading dose varies by age: <1 year, 0.20 mg/kg; >1-5 years, 0.09 mg/kg; 6-10 years, 0.07 mg/kg; 11-18 years, 0.06 mg/kg. | Not used in North America. See J Thromb Haemost. 2003 Aug;1(8):1740-3 for details. | Same as warfarin | Same as warfarin |