Pediatric Warfarin Dosing and Monitoring Protocol
Infancy to < 18 yr

Administration

- Warfarin doses are routinely given at the same time daily.
- Doses should be rounded to the nearest ½ tablet strength. Tablets are scored. (1 mg, 2 mg, 2.5 mg, 3mg, 4mg, 5 mg, 6mg, 7.5 mg, and 10mg)
- Females of childbearing age must have pregnancy screening prior to initiation. Serum pregnancy testing is preferred.
- **Baseline INR** should be documented in the medical record **within 48 hours before the first dose** of warfarin. If baseline INR is > 1.3, consult Pediatric Hematology.
- Patients and /or caregivers should be educated on administration guidelines and side effects prior to discharge.
- Consider discontinuing 3 to 5 days prior to major surgery. If hemostasis is achieved, may be restarted 12-24hr post-procedure.

Bridging

- Patients on therapeutic LMWH or Heparin should be bridged to warfarin.
    1) Initiate warfarin while on therapeutic heparin/LMWH for 5 days AND until desired therapeutic INR is reached on two occasions 24 hours apart
    2) Heparin may affect the INR, and so INR monitoring AFTER heparin cessation should occur 4hrs after cessation of continuous IV heparin infusion
- Consult Pediatric Hematology for additional bridging recommendations

Monitoring

- **Target INR: usually 2 - 3** (2.5 - 3.5 for mechanical mitral valve)
- INR monitoring should begin on days 3, 4, 5 and 6. Thereafter, INR should be drawn at least every-other-day until 2 consecutive therapeutic values are obtained on 2 separate days. INRs should then be checked no less than twice weekly.
- Warfarin dose should be adjusted based on INR (see recommendations below).
- Monitor CBC biweekly, and check for signs and symptoms of bleeding.

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Goal Dosing (INR)	Goal INR 2.0-3.0		Goal INR 2.5-3.5	
Day 1	Loading Dose 0.2mg/kg (max 10mg) For patients post-Fontan OR patients with liver dysfunction AND baseline INR > 1.3: 0.1mg/kg (max 5mg)			
Day 2-4	**INR 1.1 to 1.3**	Repeat loading dose		
	INR 1.4 to 3	Give 50% initial dose		
	INR 3.1 to 3.5	Give 25% initial dose		
	INR > 3.5	Hold until INR < 3.5; then restart at 50% previous dose		
Day ≥ 5 (Maintenance Dosing)	**INR 1.1 to 1.4**	Increase dose by 20% previous dose	**INR < 2**	Increase weekly dose by 10-20%
	INR 1.5 to 1.9	Increase dose by 10% previous dose	**INR 2 to 2.2**	Increase weekly dose by 5% to 15%
	INR 2 to 3	No change	**INR 2.3 to 2.4**	No change needed if last 2 INRs were in range; otherwise, increase weekly dose 5-10%
	INR 3.1 to 3.5	Decrease dose by 10% previous dose	**INR 2.5-3.5**	No change
	INR > 3.5	Hold until INR < 3.5; then restart at 20% less than previous dose	**INR 3.6 to 3.7**	No change if last 2 INRs were in range AND there is no increased risk of hemorrhage; otherwise decrease weekly dose by 5-10%
			INR 3.8 to 3.9	Decrease weekly dose by 5-10%
			INR 4 to 4.4	Consider holding one dose; decrease weekly dose by 5-15%
			INR 4.5 to 10 without bleeding	Hold until INR < 3.5, decrease weekly dose by 5-20%, consider oral vitamin K if high bleeding risk
			INR > 10 without bleeding	Hold until INR < 3.5, give oral vitamin K, decrease weekly dose by 5-20%

References

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