Table IIc. Thrombolytic medications used in pediatric thrombosis

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| **Drug** | **Treatment Dose** | **Monitoring** | **Mechanism** | **Comments** |
| **Thrombolytics** |  |  |  | Thrombolytics are sometimes used in patients with large or life-threatening thrombosis in an attempt to dissolve the clot and reduce short-and long-term morbidity. They carry a significant risk of hemorrhage, so risks and benefits must be carefully weighed in each patient. |
| Alteplase | Continuous infusion of 0.1-0.3 mg/kg/hour IV for 6-12 hours may be used for systemic thrombolysis. Much lower doses are sufficient for site-directed thrombolysis administered by interventional radiologic placement of a catheter directly into the thrombus (or proximal to it). | Frequent clinical assessment of the patient and thrombus, and measurement of hemoglobin, platelets, PT, aPTT, and fibrinogen every 4 hours (fibrinogen should be maintained at >100 mg/dL) | Recombinant tissue plasminogen activator. Acts by converting plasminogen to plasmin, which degrades fibrin clots (fibrinolysis). Promotes rapid resolution of new thrombus. | Systemic thrombolysis is absolutely contraindicated in patients who have had major surgery or trauma within 2 weeks or any history of intracranial, pulmonary, or severe gastrointenstinal bleeding since the risk of hemorrhage is unacceptably high. Site-directed thrombolysis may be safe in such patients. Intramuscular injections should be avoided in patients receiving systemic thrombolysis. |
| Urokinase | Systemic thrombolysis with a bolus of 4400 U/kg followed by infusion of 4400 U/kg/hour IV for 6-12 hours | Same as for alteplase | Same mechanism of action as alteplase | Same as for alteplase |
| Streptokinase | Systemic thrombolysis with a bolus of 2000 U/kg followed by infusion of 2000 U/kg/hour IV for 6-12 hours | Same as for alteplase | Same mechanism of action as alteplase | Same as for alteplase. Higher risk of allergic (usually anaphylactic) reactions than other thrombolytics. |