aminocaproic acid  (a-mee-noe-ka-pro-ick-a-sid)

**Classification**
Therapeutic: Hemostatic agents
Pharmacologic: Fibrinolysis inhibitors

**Pregnancy Category C**

**Indications**

**Action**
Inhibits activation of plasminogen. Therapeutic Effects: Inhibition of fibrinolysis. Stabilization of clot formation.

**Pharmacokinetics**
Absorption: Rapidly absorbed following oral administration.
Distribution: Widely distributed.
Metabolism and Excretion: Mostly eliminated unchanged by the kidneys.
Half-life: Unknown.

**TIME/ACTION PROFILE (peak blood levels)**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO</td>
<td>unknown</td>
<td>2 hr</td>
<td>NA</td>
</tr>
<tr>
<td>IV</td>
<td>unknown</td>
<td>2 hr</td>
<td>NA</td>
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</tbody>
</table>

**Contraindications/Precautions**
Contraindicated in: Active intravascular clotting.
Use Cautiously in: Upper urinary tract bleeding; Cardiac, renal, or liver disease (dose reduction may be required); Disseminated intravascular coagulation (dose reduction may be required); OB, Lactation: Safety not established.

**Adverse Reactions/Side Effects**

**Interactions**
Drug-Drug: Concurrent use with estrogen, conjugated may result in a hypercoagulable state. Concurrent use with clotting factors may risk of thromboses.

**Route/Dosage**
**Acute Bleeding Syndromes due to Elevated Fibrinolytic Activity**

**PO (Adults):** 5 g in hr, followed by 1–1.25 g q hr for 6 hr or until hemorrhage is controlled or 1 g over 24 hr after prostate surgery (not >30 g/day).

**IV (Adults):** 4–5 g in hr, followed by 1 g/hr for 6 hr or until hemorrhage is controlled or 1 g over 24 hr after prostate surgery (not >30 g/day).

**PO, IV (Children):** 100 mg/kg or 5 g/m2 over 1st hr, followed by continuous infusion of 5–5.5 mg/kg/hr or 2 g/m2/hr (total dose = 1 g/m2/hr x 24 hr).

**Subarachnoid Hemorrhage**

**PO (Adults):** To follow IV—3 g q 2 hr (6 g/day). If no surgery is performed, continue for 21 days after bleeding stops, then decrease to 2 g q 2 hr (24 hr) for 5 days, then 1 g q 2 hr for 5 days.

**IV (Adults):** 36 g/day for 10 days followed by PO.

**Prevention of Bleeding Following Oral Surgery in Hemophiliacs**

**PO (Adults):** 75 mg/kg (up to 6 g) immediately after procedure, then q 6 hr for 7–10 days; syrup may also be used as an oral rinse of 1.25 g (5 mL) every 6 hr for 7–10 days.

**PO, IV (Children):** also for epistaxis—50–100 mg/kg/dose administered IV over 6 hr for 2–3 days starting 3 hr before the procedure. After completion of IV therapy, aminocaproic acid should be given as 50–100 mg/kg/dose orally every 6 hr for 5–7 days.

**NURSING IMPLICATIONS**

**Assessment**
- Monitor BP, pulse, and respiratory status as indicated by severity of bleeding.
- Monitor for overt bleeding every 15–30 min.

**Potential Nursing Diagnoses**
- Acute pain (Indications)
- Ineffective tissue perfusion (Indications)
- Impaired physical mobility (Indications)
- Risk for infection (Indications)

**Patient/Family Teaching**
- Instruct patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken. Advise patient to consult health care professional prior to taking any new medications.

**Evaluation**
- Resolution of bleeding episode.
Monitor neurologic status (pupils, level of consciousness, motor activity) in patients with subarachnoid hemorrhage.

Monitor intake and output ratios frequently; notify physician if significant discrepancies occur.

Assess for thromboembolic complications (especially in patients with history). Notify health care professional of positive Homans’ sign, leg pain and edema, he- moptysis, dyspnea, or chest pain.

Lab Test Considerations: Monitor platelet count and clotting factors prior to and periodically throughout therapy in patients with systemic fibrinolysis. CPK, AST, and serum aldolase may indicate myopathy. May require serum potassium.

Potential Nursing Diagnoses
- Ineffective tissue perfusion (Indications)
- Risk for injury (Indications) (Side Effects)

Implementation

PO:
- Syrup may be used as an oral rinse, swished for 30 sec 4 times/day for 7–10 days for the control of bleeding during dental and oral surgery in hemophilic patients. Small amounts may be swallowed, except during 1st and 2nd trimesters of pregnancy. Syrup may be applied with an applicator in children or unconscious patients.

IV Administration

- IV: Stabilize IV catheter to minimize thrombophlebitis. Monitor site closely.

Continuous Infusion: Diluent: Do not administer undiluted. Dilute initial 4–5 g dose in 250 mL of sterile water for injection, 0.9% NaCl, D5W, or LR. Do not dilute with sterile water in patients with subarachnoid hemorrhage. Concentration: 20 mg/mL. Rate: Single doses: Administer over 1 hr. Rapid infusion rate may cause hypotension, bradycardia, or other arrhythmias. Initial dose may be followed by a continuous infusion of 1–1.25 g/hr in adults or 3.5 mg/kg/hour in children.

Continuous Infusion: Administer IV solution continuously via infusion pump to ensure accurate dose. Administer via slow IV infusion.

Additive Incompatibility: Do not admix with other medications.

Patient/Family Teaching

- Instruct patient to notify the nurse immediately if bleeding recurs or if thromboembolic symptoms develop.
- Monitor patient to make position changes slowly to avoid orthostatic hypotension.

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Evaluation/Desired Outcomes

- Cessation of bleeding.
- Prevention of rebleeding in subarachnoid hemorrhage without occurrence of undesired clotting.

Why was this drug prescribed for your patient?