ticlopidine (tye-cloe-pi-deen)

Classification
Therapeutic: antiplatelet agents
Pharmacologic: platelet aggregation inhibitors

Pregnancy Category B

Indications
Prevention of stroke in patients who have had a completed thrombotic stroke or precursors to stroke and are unable to tolerate aspirin.

Unlabeled Use:
Prevention of subacute stent thrombosis in patients receiving intracoronary stents (given with aspirin).

Action
Inhibits platelet aggregation by altering the function of platelet membranes. Prolongs bleeding time.

Therapeutic Effects:
Decreased incidence of stroke in high-risk patients. Decreased incidence of subacute stent thrombosis.

Pharmacokinetics
Absorption: 80% absorbed after oral administration.
Distribution: Unknown.
Protein Binding: 98%.
Metabolism and Excretion: Extensively metabolized by the liver; minimal excretion of unchanged drug by the kidneys.
Half-life: Single dose—12.6 hr; multiple dosing—4–5 days.

ROUTE ONSET PEAK DURATION
PO within 4 days 8–11 days 2 wk

Contraindications/Precautions
Contraindicated in: Hypersensitivity; Bleeding disorders; Active bleeding; Severe liver disease.
Use Cautiously in: Risk of bleeding (trauma, surgery, history of ulcer disease); Renal or hepatic impairment (dosage adjustments may be necessary); OB, Lactation, Pedi: Safety not established; Geri: Appears on Beers list. Have 

Adverse Reactions/Side Effects
CNS: dizziness, headache, weakness.
EENT: epistaxis, tinnitus.
GI: diarrhea, nausea, vomiting.
GU: hematuria.
Metabolic: hypercholesterolemia, hypertriglyceridemia.

Interactions
Drug-Drug: Aspirin potentiates the effect of ticlopidine on platelets (concurrent use not recommended); ↑ risk of bleeding with heparins, warfarin, thrombolytics, epothilones, or thrombolytics agents. Cimetidine ↑ metabolism of ticlopidine and may ↑ the risk of toxicity. Ticlopidine ↑ metabolism and ↓ the risk of toxicity of theophylline.

Drug-Food: Absorption ↑ by taking with food.

Route/Dosage
PO (Adults): 250 mg twice daily with food.

NURSING IMPLICATIONS
Assessment
• Assess patient for symptoms of stroke periodically throughout therapy.

 Lab Test Considerations: Monitor bleeding time throughout therapy. Prolonged bleeding time (2–5 times the normal limit), which is time- and dose-dependent, is expected.

 Monitor CBC with differential and platelet count every 2 wk from the 2nd wk to the end of the 3rd mo of therapy; more frequently if absolute neutrophil count (ANC) is declining or <30% of baseline. If neutropenia occurs, ticlopidine should be discontinued. Neutrophil counts usually return to normal within 1–3 wk of discontinuation of therapy. After the first 3 mos of therapy, CBCs need to be obtained only for patients with signs and symptoms of infection.

 • May cause thrombocytopenia, usually within 3–12 wk of initiation of therapy. If platelet count is <80,000/mm³, discontinue in toclopine.

 • May cause ↑ serum total cholesterol and triglyceride levels. Levels usually increase 8–10% within the first mo and persist at that level.

 • May cause ↑ alkaline phosphatase, bilirubin, ALT, and AST levels during the first 3 mos of therapy.

Adverse Reactions/Side Effects
CNV: dizziness, headache, weakness; EENT: epistaxis, tinnitus; GI: diarrhea, nausea, vomiting; GU: hematuria; Metabolic: hypercholesterolemia, hypertriglyceridemia.
Toxicity and Overdose: Prolonged bleeding time is normalized within 2 hr after administration of IV methylprednisolone. May also use platelet transfusions to reverse effects of ticlopidine on bleeding time.

Potential Nursing Diagnoses
Risk for injury (Indications) (Side Effects)

Implementation
- PO: Administer with food or immediately after eating to minimize GI discomfort and increase absorption.

Patient/Family Teaching
- Instruct patient to take medication as directed. Missed doses should be taken as soon as possible unless almost time for next dose; do not double doses.
- Advise patient to notify health care professional promptly if fever, chills, sore throat, unusual bleeding or bruising, severe or persistent diarrhea, skin rash, jaundice, dark-colored urine, or light-colored stools occur.
- Advise patient to notify health care professional of medication regimen before treatment or surgery. Medication may need to be discontinued 10–14 days before surgery.
- Emphasize the importance of routine lab tests during the first 3 mo of therapy to monitor for side effects.

Evaluation/Desired Outcomes
- Prevention of stroke.

Why was this drug prescribed for your patient?