prasugrel (pra-soo-grel)

Classification
Therapeutic: antiplatelet agents
Pharmacologic: thienopyridines

Pregnancy Category B

Indications
Reduction of thrombotic cardiovascular events (including stent thrombosis) in patients with acute coronary syndrome who will be managed with PCI including patients with unstable angina or non-ST-elevation myocardial infarction (NSTEMI). Reduction of thrombotic cardiovascular events (including stent thrombosis) in patients with STEMI when managed with either primary/delayed PCI.

Action
Acts by irreversibly binding its active metabolite to the P2Y12 class of ADP receptors on platelets, inhibiting platelet activation and aggregation. Therapeutic Effects: Decreased thrombotic events including cardiovascular death, nonfatal myocardial infarction (MI) and nonfatal stroke.

Pharmacokinetics
Absorption: Well absorbed following oral administration (79%), then rapidly converted to an active metabolite.
Distribution: Unknown.
Protein Binding: Active metabolite—98%.
Metabolism and Excretion: Active metabolite is metabolized to two inactive compounds; 68% excreted in the urine and 27% in feces as inactive metabolites.
Half-life: Active metabolite—7 hr (range 2–15 hr).

TIME/ACTION PROFILE (effect on platelet function)

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO</td>
<td>within 1 hr</td>
<td>2 hr</td>
<td>5–9 days†</td>
</tr>
</tbody>
</table>

† Following discontinuation.

Contraindications/Precautions
Contraindicated in: Hypersensitivity; Active pathological bleeding; History of transient ischemic attack or stroke.

Use Cautiously in:
- Patients about to undergo coronary artery bypass grafting (CABG) (↑ risk of bleeding; discontinue at least 7 days prior to surgery); Premature discontinuation (↑ risk of stent thrombosis; MI, and death); Body weight ≤60 kg, predisposed to bleed, severe hepatic impairment, concurrent use of medications that ↑ the risk of bleeding (↑ risk of bleeding); History of or risk for recent major coronary angiography, PCI, CABG, or other surgical procedures (suspect bleeding but do not discontinue prasugrel).
- Use only if potential benefit to the mother justifies potential risk to fetus; ↓ Use only if potential benefit to the mother justifies potential risk to nursing infant; ↓ Use only if potential benefit to the mother justifies potential risk to nursing infant.

Adverse Reactions/Side Effects
CNS: dizziness, fatigue, headache.
Resp: cough, dyspnea.
CV: atrial fibrillation, bradycardia, hypertension, hypotension, peripheral edema.
GI: diarrhea, nausea.
Derm: rash.
Hemat: BLEEDING, THROMBOTIC THROMBOCYTOPENIC PURPURA, leukopenia.
Metab: hyperlipidemia.
MS: back pain, extremity pain.
Misc: allergic reactions including ANGIOEDEMA, fever, non-cardiac chest pain.

Interactions
Drug-Drug: ↑ risk of bleeding with warfarin and NSAIDs.

Route/Dosage
Aspirin 75–325 mg/daily should be taken concurrently.

PO (Adults): 60 mg initially as a loading dose, then 10 mg once daily.

NURSING IMPLICATIONS
Assessment
- Assess patient for symptoms of stroke, peripheral vascular disease, or MI periodically during therapy.
- Lab Test Considerations: Monitor bleeding time during therapy. Prolonged bleeding time, which is time- and dose-dependent, is expected.

Nursing Considerations
- Caution drug name. ✔ Genetic Implication. OPTIC indicates b/C-thrombocytic anemia indicate most frequent. Discontinued
Monitor CBC with differential and platelet count periodically during therapy. Thrombocytopenia and anemia may rarely occur.

Potential Nursing Diagnoses

Risk for injury (Indications)  Side Effects

Implementation

- Discontinue prasugrel 7 days before planned surgical procedures.
- Patients should take aspirin 75–325 mg daily with prasugrel.
- PO: Administer once daily without regard to food.

Patient/Family Teaching

- Instruct patients to take medication as directed. Take missed doses as soon as possible unless almost time for next dose; do not double doses. Do not discontinue without consulting health care professional. Advise patient to read Medication Guide before taking and with each Rx refill; new information may be available.
- Advise patient to notify health care professional promptly if fever, weakness, skin paleness, purple skin patches, yellowing of skin or eyes, chills, sore throat, neurological changes, or unusual bleeding or bruising, swelling of lips, difficulty breathing, rash, or hives occurs.
- Advise patient to notify health care professional of medication regimen prior to treatment or surgery.
- Instruct patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and consult health care professional before taking any new medications, especially NSAIDs.

Evaluation/Desired Outcomes

- Prevention of stroke, MI, and vascular death in patients at risk.

Why was this drug prescribed for your patient?