Doptelet (avatrombopag)
Introduction

- **Brand name:** Doptelet
- **Generic name:** Avatrombopag
- **Pharmacological class:** Thrombopoietin receptor agonist
- **Strength and Formulation:** 20mg; tabs
- **Manufacturer:** Dova Pharmaceuticals
- **How supplied:** Tabs—10,15
- **Legal Classification:** Rx
Indications

- **Thrombocytopenia** in adults with chronic liver disease who are scheduled to undergo a procedure
Dosage & Administration

- Start treatment 10–13 days prior to procedure; undergo procedure within 5–8 days after last dose
- Take with food
- Platelet count <40 x 10^9/L: 60mg once daily for 5 days; 40–<50 x 10^9/L: 40mg once daily for 5 days
Considerations for Special Populations

- **Pediatric**: Not established
- **Pregnancy**: May cause fetal harm
- **Nursing mothers**: Not recommended during and for ≥2 weeks after last dose
- **Elderly**: Insufficient number of subjects studied
Warnings/Precautions

- Obtain **platelet count** prior to treatment and on day of procedure
- Increased **thrombotic risk** with known risk factors (e.g., Factor V Leiden, Prothrombin 20210A, Antithrombin deficiency, Protein C or S deficiency)
- **Do not use** to normalize platelet counts
Adverse Reactions

- Pyrexia
- Abdominal pain
- Nausea
- Headache
- Fatigue
- Peripheral edema
- Thrombotic/thromboembolic complications
Mechanism of Action

- **Avatrombopag** is an orally bioavailable, small molecule TPO receptor agonist that stimulates proliferation and differentiation of megakaryocytes form bone marrow progenitor cells resulting in an increased production of platelets.
- It does not compete with TPO for binding to the TPO receptor and has an additive effect with TPO on platelet production.
Clinical Studies

- Efficacy of Doptelet was evaluated in 2 identically-designed multicenter, randomized, double-blind, placebo-controlled trials (ADAPT-1 and ADAPT-2)
Clinical Studies

- **Low** baseline platelet count cohort (<40 x 10^9/L)
  - Doptelet 60mg or placebo once daily for 5 days
- **High** baseline platelet count cohort (≥40 to <50 x10^9/L)
  - Doptelet 40mg or placebo once daily for 5 days
The major efficacy outcome was the proportion of patients who did not require a platelet transfusion or any rescue procedure for bleeding after randomization and up to 7 days following an elective procedure ("Responders")
In ADAPT-1 (N=231), 66% of low baseline platelet count cohort patients who received Doptelet were responders vs 23% of placebo patients (difference 43%, 95% CI, 27, 58; \( P < .0001 \))

88% of high baseline platelet count cohort patients who received Doptelet were responders vs 38% of placebo patients (difference 50%, 95% CI, 32, 68; \( P < .0001 \))
In ADAPT-2 (N=204), 69% of low baseline platelet count cohort patients who received Doptelet were responders vs 35% of placebo patients (difference 34%, 95% CI, 16, 52; \( P = .0006 \))

88% of high baseline platelet count cohort patients who received Doptelet were responders vs 33% of placebo patients (difference 55%, 95% CI, 37, 73; \( P < .0001 \))
Both trials also showed a higher proportion of patients who achieved the target platelet count $\geq 50 \times 10^9$/L on the day of the procedure (secondary efficacy endpoint) in both Doptelet-treated groups vs placebo.

For more clinical trial data, see full labeling.
New Product Monograph

For more information view the product monograph available at:

http://www.empr.com/doptelet/drug/34836/