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Pharmacotherapeutic report on eltrombopag (Revolade®) for the indication 'Immune (idiopathic) thrombocytopenic purpura'

Eltrombopag (Revolade®) 25-mg tablet for oral use.

Registered indication. Chronic immune (idiopathic) thrombocytopenic purpura (ITP) in adults who have undergone splenectomy and who are refractory for other treatments (e.g., corticosteroids and imunoglobulins).

- Eltrombopag can be considered as secondary care treatment for adults who have not undergone splenectomy and who are contraindicated for surgery.

Dose. Initial dose 50 mg 2x/day. Adjust the dose until the number of thrombocytes plates reaches ≥ 50 x 10^9/l. the dose should no exceed 75 mg/day. Check the number of thrombocytes each week until a stable number (≥ 50 x 10^9/l) has been reached. Continue checking them once a month.
Maintenance dose: Number of thrombocytes < 50 x 10^9/l: increase the daily dose by 25 mg up to a maximum of 75 mg 2x/day.
≥ 50 x 10^9/l up to ≤ 150 x 10^9/l: no dose adjustment (use the lowest dose possible).
≥ 150 x 10^9/l up to ≤ 250 x 10^9/l: reduce the dose by 25 mg.
> 250 x 10^9/l: terminate eltrombopag and increase the frequency with which the number of thrombocytes is checked to twice per week. If ≤ 100 x 10^9/l, recommence treatment at a dose that has been reduced by 25 mg.

Mode of action. Eltrombopag is a small molecular (non-peptide) thrombopoetin (TPO) receptor agonist. Eltrombopag binds to a different site on the TPO receptor that endogenic TPO. Binding to the TPO-receptor stimulates the growth and the maturity of megakayoctes, resulting in an increased production of thrombocytes.

Specific details. Eltrombopag is registered as an orphan drug.

Summary therapeutic value
Favourable effects. Both eltrombopag and romiplostim increase the number of thromobocytes significantly in patients with refractory ITP. Patients treated with eltrombopag had a lower incidence of haemorrhages (WHO level 1-4) in comparison with placebo. In the romiplostim studies haemorrhages were not included as an efficacy parameter, but reported as side effects. No statistically significant differences in clinically relevant haemorrhages were observed in the romiplostim studies. A relationship was found both in the eltrombopag and the romiplostim studies, between the number of thrombocytes and the occurrence of haemorrhages; all haemorrhages occurred when the number of thrombocytes was < 50 x 10^9/l.

Unfavourable effects. The side effects profile and the risk profile of eltrombopag is equal to the profiles of romiplostim. The side effects that differ are for eltrombopag: alopecia, cataract and raised liver enzymes and for romiplostim: injection site disorders, influenza, asthemia, pyrexia, dizziness, ecchymosis and blushing. Furthermore, there is a risk of hepatoxicity with eltrombopag. With romiplostim there is a risk of immunogenicity.