

Tofacitinib flash card

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Mechanism of action

- Second generation JAK 1 & 3 inhibitor

Indications

Oral tofacitinib

FDA approved

- Rheumatoid arthritis (2012)
- Psoriatic arthritis (2017)
- Ulcerative Colitis (2018)
- Polyarticular course Juvenile idiopathic arthritis (2020)
- Ankylosing spondylitis (2021)

Off label

- Alopecia areata, vitiligo, atopic dermatitis
- Crohn's disease, pyoderma gangrenosum
- Generalized deep morphea, systemic sclerosis, eosinophilic fasciitis
- Lichen plano-pilaris, nail and erosive lichen planus, frontal fibrosing alopecia
- Dermatomyositis and hidradenitis suppurativa

Topical tofacitinib

- Alopecia areata and atopic dermatitis

Contraindications

- Active infections
- Absolute lymphocyte count $<500/\text{mm}^3$ or absolute neutrophil count (ANC) $<1000/\text{mm}^3$ or hemoglobin <9 g/dL
- Severe hepatic impairment
- Hypersensitivity
- Increased risk for gastrointestinal perforation

Dosage

- Adult: 5mg BD to 10mg BD or 11mg XR OD
- Pediatric doses according to weight –
 - $> 40\text{kg}$ - 5mg BD
 - 20-40kg - 4mg BD
 - 10-20kg - 3.2mg BD

Pregnancy/lactation

- Pregnancy: Category "C"
- Lactation: Not to breastfeed during treatment, for at least 18 hours after the last dose and 36 hours after extended release preparation

Adverse effects

- Reversible dose-dependent decrease in hemoglobin, RBCs, neutrophils and lymphocytes
- Dose-dependent increase in SGPT, SGOT, CPK
- Dyslipidemia
- Infections, malignancies, gastrointestinal perforations, hypersensitivity

Pre work-up

- Complete hemogram, Liver function tests, Renal function tests
- Mantoux test or IGRA or chest X-ray
- Screening test for HBsAg, anti-Hep B core (total), anti-HCV, HIV 1 and 2
- Serum CPK levels, fasting lipid profile

Drug Interactions

- As it is mainly metabolized by CYP3A4, dose reduction and increment is required with CYP3A4 inhibitor(s) and inducers respectively.
- Other immunosuppressive drugs, biologics and DMARDs: Co-administration is not recommended.
- Vaccination: undertaken at least 4 weeks before or after 6 months of therapy.

Availability and average Cost

- 5mg tablet: 33-1100 ₹ per tablet
- 11mg tablet: 53-2530 ₹ per tablet
- Oral solution: 240ml (1 mg/mL)
- 10mg tablet: 41 ₹ per tablet
- 2% Ointment: 800-1100 per 10-15gm

Monitoring

- One month after starting treatment and then every 3 months: CBC, Serum creatinine, LFT, fasting lipid profile
- Annually: screening for TB