CUH
Ospidéal Ollscoile Chorcaí
Cork University Hospital

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

# Tofacitinib
# GP information Leaflet

**Tofacitinib**

Tofacitinib is a potent selective inhibitor of the JAK family. Inhibition of JAK 1 and JAK 3 by Tofacitinib attenuates signalling of proinflammatory interleukins and interferon which modulates immune and inflammatory response.

**Screening pre commencement**

- FBC/ Renal profile/ Liver profile
- Screen for latent or active TB infection i.e. Quantiferon
  - Treat latent TB with standard anti tuberculosis medication
- Screen for viral hepatitis
- Up to date on vaccinations in agreement with current immunisation guidelines
  - Herpes zoster-
    - risk of infection or reactivation
    - patients may be considered for herpes zoster vaccination
  - Vaccination with live vaccines should occur at least 2 weeks prior to initiation

**Precautions and contraindications**

- Contraindicated if active TB/ serious infection/ opportunistic infection
- Contraindicated if
  - Lymphocyte count <0.75cellsx$10^9$/l
  - Neutrophil count <1.0 cellsx$10^9$/l
  - Haemoglobin <9g/dl
- Hepatic impairment
  - C/I Severe hepatic impairment (Child Pugh C)
  - Dose reduction to 5mg OD in moderate hepatic impairment
- Renal impairment
  - Severe renal impairment (eGFR<30ml/min): 5mg OD
- Contraindicated in pregnancy and breastfeeding
  - Women of childbearing age should use effective contraception during treatment and for at least 4 weeks after the last dose
- Reduce dose to 5mg OD if receiving
  - Potent inhibitors of cytochrome P450 3A4 eg ketoconazole
  - Potent inhibitors of CYP2C19

**Monitoring**

- If a new infection develops
  - ❖ Interrupt tofacitinib treatment and investigation as appropriate for an immunocompromised patient
- If patients presents with new onset abdominal signs and symptoms- promptly investigate for gastrointestinal perforation (risk factors: history of diverticulitis, steroid or NSAID use)

LAB MONITORING

- FBC and LFTs should be monitored monthly for the first 3 months and every 3 months thereafter

| **Lymphocyte count (ALC)** | |
|---|---|
| **Lab Value** ($x\ 10^9$/l) | **Recommendation** |
| ≥0.75 cells | Dose should be maintained. |
| 0.5- 0.75 cells | For persistent (2 sequential values in this range on routine testing) decrease in this range, dosing should be interrupted until ALC ≥0.75. When ALC is ≥0.75, resume 5 mg twice daily. |
| <0.5cells | If lab value confirmed by repeat testing within 7 days, dosing should be discontinued. |

| **Neutrophil Count** | |
|---|---|
| **Lab Value** ($10^9$/l) | **Recommendation** |
| ≥1 cells | Dose should be maintained. |
| 0.5- 1 cells | For persistent (2 sequential values in this range on routine testing) decreases in this range, dosing should be interrupted until ANC is ≥1cell.<br>When ANC is greater than ≥1, resume 5 mg twice daily. |
| ≤1 cells | If lab value confirmed by repeat testing within 7 days, dosing should be discontinued. |

| **Haemoglobin Monitoring** | |
|---|---|
| **Lab Value (g/dL)** | **Recommendation** |
| Less than or equal to 2 g/dL decrease and greater than or equal to 9g/dL | Dose should be maintained. |

| **Liver Enzymes** | |
|---|---|
| >2 but < 3 fold rise in AST/ALT from upper limit of reference range | Reduce dose and repeat LFTs |
| >3 fold rise in AST/ALT from upper limit of reference range | Hold tofacitinib. Repeat LFTs within 2-4 weeks |

**Side Effects:**

1. Blood and lymphatic system disorders: Leukopenia, anaemia, lymphopenia, neutropenia
2. Infection: nasopharyngitis, pneumonia, influenza, herpes zoster, urinary tract infection, sinusitis, bronchitis, pharyngitis, sepsis, tuberculosis, pneumonia pneumococcal, pneumonia bacterial, diverticulitis, pyelonephritis, cellulitis, arthritis bacterial, herpes simplex, gastroenteritis viral, viral infection
3. Metabolism and nutrition disorders: dyslipidaemia, hyperlipidaemia, dehydration
4. Gastrointestinal disorders: abdominal pain, vomiting, diarrhoea, nausea, gastritis, dyspepsia
5. Hepatobiliary disorders: hepatic steatosis
6. Respiratory, thoracic and mediastinal disorders: dyspnoea, cough, sinus congestion
7. Psychiatric disorders: insomnia
8. Nervous system disorders: headache, paraesthesia
9. Vascular disorders: hypertension
10. Skin and subcutaneous tissue disorders: rash, erythema, pruritus
11. Musculoskeletal and connective tissue disorders: musculoskeletal pain, Arthralgia, joint swelling, tendonitis

**Contact Details**


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|---|---|
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Please consult up to date relevant literature (data sheets) or BNF when prescribing this agent. Please contact the Rheumatology team if you have any other queries regarding the prescribed medication.