Temziva

Tocilizumab

Dosage Forms & Strengths

- Tocilizumab 80 mg/4 ml concentrate for solution for infusion
- Tocilizumab 200 mg/10 ml concentrate for solution for infusion
- **Tocilizumab 400 mg/20 ml concentrate for solution for infusion (available)**
- Tocilizumab 162 mg/0.9 ml solution for injection in pre-filled syringe

Description

Temziva contains tocilizumab as an active substance.

Mechanism of Action

Tocilizumab is an antagonist of the interleukin-6 (IL-6) receptor.

Indications

Labeled:

Tocilizumab is indicated for the following conditions:

- **Polyarticular juvenile idiopathic arthritis** (in patients ≥ 2 years of age)
- **Systemic juvenile idiopathic arthritis** (in patients ≥ 2 years of age)
- **Rheumatoid arthritis** (in adults with moderately to severely active rheumatoid arthritis (RA)
- Giant cell arteritis
- Cytokine release syndrome (due to CAR[1] T-cell therapy), severe or life-threatening (in patients ≥ 2 years of age)
- Systemic sclerosis-associated interstitial lung disease

Off-label:

- COVID-19, hospitalized patients
- Cytokine release syndrome (due to bi-specific T-cell engaging therapy), severe or life-threatening

Dosing: Adult

- Rheumatoid arthritis

IV:
Initial: 4 mg/kg once every 4 weeks; may be increased to 8 mg/kg once every 4 weeks based on clinical response (maximum dose: 800 mg)

SUBQ:
<100 kg: 162 mg once every other week; increase to 162 mg once every week based on clinical response.
≥100 kg: 162 mg once every week.

Transitioning from IV therapy to SUBQ therapy: Administer the first SubQ dose instead of the next scheduled IV dose.

Note: Do not initiate if ANC is <2,000/mm^3, platelets are <100,000/mm^3, or if ALT or AST are >1.5 times ULN.

1. Chimeric Antigen Receptor

Dosing: Pediatric

- Polyarticular juvenile idiopathic arthritis (PJIA) in children ≥2 years of age and Adolescents:

IV:
<30 kg: 10 mg/kg/dose every 4 weeks.
≥30 kg: 8 mg/kg/dose every 4 weeks; maximum dose: 800 mg/dose.

SUBQ:
<30 kg: 162 mg/dose once every 3 weeks.
≥30 kg: 162 mg/dose once every 2 weeks.

- Systemic juvenile idiopathic arthritis (SJIA) in children ≥2 years of age and Adolescents:

IV:
<30 kg: 12 mg/kg/dose every 2 weeks.
≥30 kg: 8 mg/kg/dose every 2 weeks; maximum dose: 800 mg/dose.

SUBQ:
<30 kg: 162 mg/dose once every 2 weeks.
≥30 kg: 162 mg/dose once every week.

Note: Do not initiate if ANC is <2,000/mm^3, platelets are <100,000/mm^3, or if ALT or AST are >1.5 times ULN.

Adverse Reactions

>10%:

- Endocrine & metabolic: Increased serum cholesterol (19% to 20%; children and adolescents: ≤2%); Gastrointestinal: Constipation (6% to 13%); Hematologic & oncologic: Neutropenia (children and adolescents <30 kg: 26%; children and adolescents ≥30 kg: 4%; adults: 3% to 4%); Hepatic: Increased serum alanine aminotransferase (≤36%), increased serum aspartate aminotransferase (≤22%); Local: Injection site reaction (SubQ: children and adolescents: 15% to 44%; adults: 7% to 10%); Miscellaneous: Infusion-related reaction (4% to 20%).

Reproductive Considerations

- Based on limited data, tocilizumab may be considered for use in patients with rheumatic and musculoskeletal diseases who are planning to become pregnant; however, treatment should be discontinued once pregnancy is confirmed. Conception should be planned during a period of quiescent/low disease activity.

- Information related to paternal use of tocilizumab is limited. Therefore, recommendations are not available for use in patients with rheumatic and musculoskeletal diseases who are planning to father a child.

Use in Pregnancy and Lactation

Pregnancy:

- Tocilizumab crosses the placenta. Until additional information is available, tocilizumab is not currently recommended for the treatment of rheumatic, musculoskeletal diseases and COVID-19 during pregnancy. Tocilizumab should be discontinued once pregnancy is confirmed.

Lactation:

- Tocilizumab is present in breast milk.
- The decision to breastfeed during therapy should consider the risk of infant exposure, the benefits of breastfeeding to the infant, and benefits of treatment to the mother. Concentrations of tocilizumab are expected to be limited in breast milk due to large molecular weight. Also, because tocilizumab is unlikely to be absorbed via the infant GI tract, use of tocilizumab may be considered in patients who are breastfeeding.

Contraindications

Known hypersensitivity to tocilizumab or any component of the formulation; Active infections.

Warnings/ Precautions

GI perforations; Hematologic effects (neutropenia and thrombocytopenia may occur); Hepatic effects; Hypersensitivity; Infections; Tuberculosis (both reactivation of active infection and new infections); Hyperlipidemia; Malignancy; Herpes zoster reactivation; Demyelinating CNS disease.

Monitoring Parameters

- Latent TB screening prior to therapy initiation;
- Neutrophils and platelets (prior to therapy, 4 to 8 weeks after start of therapy, and every 3 months thereafter) [RA/GCA/SSC-ILD];
- ALT/AST, alkaline phosphatase, and total bilirubin (prior to therapy, every 4 to 8 weeks after start of therapy for the first 6 months, and every 3 months thereafter) [RA/GCA/SSC-ILD];
- Neutrophils, platelets, ALT/AST (prior to therapy, at second administration, and every 2 to 4 weeks [sJIA] or 4 to 8 weeks [pJIA] thereafter);
- Additional liver function tests (eg, bilirubin) as clinically indicated;
- Lipid panel (prior to and 4 to 8 weeks following initiation of therapy, then subsequently according to current guidelines);
- Signs and symptoms of infection (prior to, during, and after therapy);
- Signs and symptoms of CNS demyelinating disorders; new onset abdominal symptoms.

Storage and Handling

Store Temziva in refrigerator (2-8°C) and in the original package in order to protect from light and moisture.

Administration

IV:
Drug solution is diluted by sodium chloride 9 mg/ml (0.9%) solution for injection to the final volume of 100 ml and given through a drip in the vein (intravenous infusion) over one hour (Allow diluted solution for infusion to reach room temperature prior to administration). Do not use if opaque particles or discoloration is visible.

To mix the solution, gently invert the infusion bag to avoid foaming. In patients weighing less than 30 kg, 50 ml of 0.9% sodium chloride solution for injection is used.

SUBQ:
Allow to reach room temperature (30 minutes) prior to use. Do not use if particulate matter or discoloration is visible; solution should be clear and colorless to pale yellow. Administer the full amount in the pre-filled syringe. Rotate injection sites; avoid injecting into moles, scars, or tender, bruised, red, or hard skin.

Reference: Tocilizumab Drug Information, UpToDate Database, 2022.

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