

## Biologic Treatments - Injectable Medications

Follow your health care provider's directions for use as differing medications have differing dosage regimens.

| Medication Common Name (Brand) | What it does   | How it's delivered  | Dose & Frequency                                     | Monitoring/Follow up   | *Common Side Effects  |
|--------------------------------|--|---|--|--|---|
| Adalimumab (Humira®)           | Adalimumab a monoclonal antibody is a TNF blocker that binds to a TNF-alpha protein (also known as tumour necrosis factor.) It decreases the inflammation process. | Subcutaneous (under the skin) injection. Prefilled syringe or pen         | Initial dose of 80mg; every other week dose of 40 mg | Before starting, during and after treatment patient should be checked for infection including active or inactive tuberculosis infection with a tuberculin skin test. | Infections, upper respiratory tract infections (cold symptoms) injection site reaction, headache, diarrhea and nausea. pneumonia, fever, abdominal pain.  |
| Certolizumab pegol (Cimzia®)   | Subcutaneous (under the skin) injection. Prefilled syringe.  | 400 mg at Week 0,2 and 4.<br>200 mg every 2 weeks or 400 mg every 4 weeks |  | Patients must be monitored closely for signs and symptoms of serious infections (including tuberculosis) before, during and after treatment.                         | Upper respiratory infection (cold, flu), fatigue, skin infection, rash, hypertension, headache, back pain, liver function elevations (from blood tests). Injection site reaction ie.pain, redness, swelling, itching, or bruising. Serious infections including pneumonia, bronchopneumonia, bronchitis, and herpes zoster (shingles) |

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|---|--|---|---|---|---|
| Brodalumab<br>(Siliq™)                  | <p>SILIQ contains the active substance brodalumab. Brodalumab is a monoclonal antibody.</p> <p>Monoclonal antibodies are proteins that recognize and bind specifically to certain proteins in the body.</p> <p>SILIQ belongs to a group of medicines called interleukin (IL) inhibitors. The medicine works by blocking the activity of IL-17 proteins, which are present at increased levels in diseases such as psoriasis.</p> | Subcutaneous injection pre-filled syringe                   | SILIQ dose is 210 mg administered by subcutaneous injection at Weeks 0, 1, and 2 followed by 210 mg every 2 weeks.  | <p>Before starting, during and after treatment, patient should be checked for active or inactive tuberculosis infection.</p> <p>Prior to prescribing SILIQ, weigh the potential risks and benefits in patients with a history of depression and/or suicidal ideation or behavior.</p>                   | <p>The most common side effects of SILIQ include headaches, joint pain, feeling tired, mouth or throat pain and diarrhea.</p> <p>N.B. Suicidal ideation and behavior, including completed suicides, have occurred in patients treated with SILIQ. However a causal association between treatment with SILIQ and increased risk of suicidal ideation and behaviour has not been established.</p> |
| Etanercept<br>(Enbrel®)                 | Etanercept a monoclonal antibody is a TNF blocker. By binding to TNF-alpha, it decreases the inflammation process.   | Subcutaneous injection (pre-filled syringe or autoinjector) | A 50 mg dose should be given as one subcutaneous (SC) injection, twice a week for 3 months. A 50 mg dose can also be given as two 25 mg SC injections. For patients ages 4 to 17 years, is 0.8 mg/kg per week (up to a maximum of 50 mg per week). The 50 mg pre-filled syringe or autoinjector may be used for pediatric patients weighing 63 kg (138 pounds) or more. | <p>Before starting, during and after treatment, should be checked for active or inactive tuberculosis infection.</p> <p>After 3 months of treatment, your doctor may reduce dose to 50 mg once per week, using one 50 mg single-use pre-filled syringe or two 25 mg single-use pre-filled syringes.</p> | Upper respiratory tract infections (sinus infections), headaches, injection site reactions.   |

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|--|--|--|--|---|---|
| Golimumab<br>(Simponi®)  | Golimumab is a monoclonal antibody is a TNF blocker. By binding to TNF-alpha, it decreases the inflammation process<br>To treat psoriatic arthritis  | Subcutaneous injection (pre-filled syringe or autoinjector)<br><br>(IV for rheumatoid arthritis) | 50 mg given as a subcutaneous injection, once a month, on the same date each month   | Before starting, during and after treatment, should be checked for active or inactive infections including tuberculosis infection.  | Flu, bronchitis, infection of soft tissues, sore throat, upper respiratory infection, sinus infection, runny nose, cold sores, abnormal liver tests, dizziness, numbness or tingling, high blood pressure, fever, hair loss, and redness at the site of injection.  |
| Guselkumab<br>(Tremfya™)   | Guselkumab is a monoclonal antibody/interleukin-23 (IL) inhibitor. It neutralizes the activity of a protein IL-23, which is present at increased levels in diseases such as plaque psoriasis | Subcutaneous pre-filled syringe  | 100 mg to be given as subcutaneous injection at week 0 and week 4. Then 100 mg every 8 weeks thereafter.   | Patients evaluated for tuberculosis infection prior to initiating treatment. Patients should be monitored for signs and symptoms of active tuberculosis during and after treatment.     | Infections of the nose, sinuses, or throat (e.g. common cold); redness, pain, swelling, bruising and/or itching at the injection site stomach flu, diarrhea, headache, joint pain fungal infections of the skin (e.g. athlete's foot) herpes simplex infections (e.g. cold sores, genital herpes)   |
| Infliximab<br>(Remicade®)<br><br><i>Infliximab Biosimilar (Inflectra®)</i><br><br><i>Infliximab-abda Biosimilar (Renflexis™)</i> | Infliximab a monoclonal antibody is a TNF blocker. By binding to TNF-alpha, it decreases the inflammation process  | Intervenous. (IV) Injection administered by healthcare provider                                  | Psoriatic Arthritis: 5 mg/kg given as an IV infusion followed with additional similar doses at 2 and 6 weeks after the first infusion, then every 8 weeks thereafter.<br>Plaque Psoriasis: 5 mg/kg given as an IV infusion followed with additional similar doses at 2 and 6 weeks after the first infusion then every 8 weeks thereafter. | Patients should be monitored closely for signs and symptoms of active tuberculosis during and after treatment, including patients who tested negative for latent tuberculosis infection | Shortness of breath, rash, and headache; abdominal pain, back pain, coughing, diarrhea, dizziness, fatigue, itchiness, pain, upper respiratory infections (such as bronchitis, sinusitis, cold, sore throat), upset stomach, and urinary tract infections. may have a minor influence on the ability to drive and use of machines. Dizziness may occur. |

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|---|---|--|---|---|--|
| Ixezumab<br>(Taltz™)                    | Ixezumab is an IL-17 inhibitor, a monoclonal antibody. This medicine neutralizes the activity of IL-17A, which is present at increased levels in diseases such as plaque psoriasis.   | Subcutaneous (under the skin) injection. Pre-filled syringe or autoinjector. | The recommended dose is 160 mg by subcutaneous injection (two 80 mg injections) at Week 0, followed by 80 mg (one injection) at Weeks 2, 4, 6, 8, 10, and 12  | Patients evaluated for tuberculosis infection prior to initiating treatment. Patients should be monitored for signs and symptoms of active tuberculosis during and after treatment. | Infections, injection site reaction, nausea, upper respiratory tract infections with symptoms such as sore throat and stuffy nose, athlete's foot  |
| Sekukinumab<br>(Cosentyx®)              | Sekukinumab is an IL-17 inhibitor, a monoclonal antibody. This medicine neutralizes the activity of IL-17A, which is present at increased levels in diseases such as plaque psoriasis.  | Subcutaneous injection. Pre-loaded injector pen or as powder for solution.   | Psoriasis: initial dose 300 mg at Week 0.1.2. 3 and 4.<br>For Psoriatic Arthritis :The recommended dose is 150 mg by subcutaneous injection with initial dosing at Weeks 0, 1, 2, 3, and 4 followed by monthly maintenance dosing.  | Patients evaluated for tuberculosis infection prior to initiating treatment. Patients should be monitored for signs and symptoms of active tuberculosis during and after treatment. | Upper respiratory tract infections with symptoms such as sore throat and stuffy nose, cold sores, diarrhea, itchy rash, runny nose   |
| Ustekinumab<br>(Stelara®)               | Ustekinumab and IL inhibitor, blocking interleukin 12 (IL-12) and interleukin 23 (IL-23). Patients' immune systems may attack parts of their body and that attack uses IL-12 and IL -23. Ustekinumab can block the IL-12 and IL-23 from causing the immune system to attack the skin, nails, joints or the digestive tract. | Subcutaneous injection pre-filled syringe                                    | Adult Psoriasis: 45 mg at Weeks 0 and 4 then every 12 weeks thereafter. Doctor may consider treating you every 8 weeks.<br>90 mg may be used in patients with a body weight greater than 100 kg.<br>Pediatric Psoriasis (12 years of age or older)<br>The recommended dose of is based on body weight is given at Week 0 and 4, and then every 12 weeks thereafter. | Patients evaluated for tuberculosis infection prior to initiating treatment. Patients should be monitored for signs and symptoms of active tuberculosis during and after treatment. | Headaches, common cold, upper respiratory tract infections, fatigue, dizziness headaches sore throat, diarrhea, Nausea, vomiting, back pain, muscle aches, joint pain, fatigue, Itching redness and pain at injection site |

**UPDATED : This chart is inclusive of all approved medications up to January 22, 2019**

Information is from the full product monograph or consumer information for each listed medication. \*This chart does not provide a complete list of possible side effects. For more detailed information refer to the Product Monograph- Adverse Reactions or Consumer information insert for warnings, precautions and other considerations for each treatment “