

**What is Dupilumab?**

- ✓ Dupilumab (brand name Dupixent®) was approved by the Food and Drug Administration (FDA) for the treatment of chronic obstructive pulmonary disease (COPD) in September 2024.
- ✓ Dupilumab decreases lung inflammation in patients with COPD who have high eosinophil counts.
- ✓ Eosinophils are white blood cells that travel through the bloodstream to sites such as the lung, where they contribute to inflammation.
- ✓ Dupilumab is a monoclonal antibody that blocks the signaling of molecules that promote the production of eosinophils. These molecules are called interleukin-4 (IL-4) and interleukin-13 (IL-13).
- ✓ By reducing eosinophil counts, dupilumab decreases lung inflammation.
- ✓ Dupilumab is administered as a subcutaneous injection. This means that it is injected into the fatty tissue layer beneath the skin. Dupilumab is taken every two weeks. Injections can be done at home.
- ✓ AlphaNet does not formally endorse or discourage the use of dupilumab.

**What are the Expected Benefits?**

- ✓ Dupilumab can improve lung function and quality of life. It also can reduce exacerbations.
- ✓ For individuals who do not notice that they feel better after taking dupilumab, it is important to recognize that this medication helps prevent exacerbations. A reduction in exacerbations is very important. Exacerbations can lead to disease progression, morbidity, and death.

**What are the Common Side Effects?**

- ✓ The most common side effects of dupilumab when taken for COPD include headache, infection, diarrhea, urinary tract infection, and injection site reactions. Reactions at the injection site include pain, itchy skin, redness or discoloration, and swelling.
- ✓ This is not a complete list of all possible side effects.
- ✓ Dupilumab has been FDA approved for asthma and other eosinophilic conditions since 2017. In general, it is well tolerated.

**Which COPD Patients Benefit from Dupilumab?**

- ✓ Dupilumab is prescribed for individuals with COPD who:
  - Have inadequately controlled COPD while on other COPD medications.
  - Have a high number of eosinophils.
- ✓ You must have an eosinophil count of  $\geq 300$  cells per microliter on a complete blood count (CBC) to qualify for a dupilumab prescription. Only about 20% of COPD patients have an eosinophil count that meets this threshold. This means that 80% of COPD patients will not benefit from this medication.
- ✓ To find out the number of eosinophils on your CBC, you would look at the lab details where this number is listed or ask your healthcare provider.
- ✓ Dupilumab and corticosteroids:
  - Prednisone and other oral corticosteroids can suppress blood eosinophils, though this does not occur with inhaled corticosteroids.
  - If you are regularly taking prednisone, a high eosinophil count would only be detectable after you stop taking prednisone.
  - Since dupilumab likely has fewer side effects than prednisone, the decision to replace prednisone (which is inexpensive) with dupilumab (which is costly) depends on insurance coverage and eosinophil numbers.
- ✓ Dupilumab is usually considered an “adjunctive” therapy. This means that it is taken in addition to other COPD medications. Individuals typically would not stop taking their existing COPD medications—especially long-acting beta-agonists (LABA), long-acting muscarinic antagonists (LAMA), and inhaled corticosteroids—when dupilumab is prescribed.
- ✓ Your healthcare provider can help determine whether dupilumab could be useful for you.

**How Much Does Dupilumab Cost?**

- ✓ Dupilumab, like many new drugs, is expensive.
- ✓ The cost is estimated at \$60,000 per year, so insurance authorization is necessary.