AlphaNet

Eosinophilic COPD

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What is Eosinophilic COPD?

- ✓ Eosinophils are white blood cells that travel through the bloodstream to sites such as the lung, where they contribute to inflammation.
- ✓ Some individuals with COPD have a high number of eosinophils, or "eosinophilic" COPD.
- ✓ Individuals with eosinophilic COPD have a higher risk of exacerbations. They also have a higher risk of emergency room visits and hospitalizations to treat exacerbations.

Medications for Eosinophilic COPD

- ✓ There currently are two FDA-approved medications for eosinophilic COPD:
  - ❑ Dupilumab (brand name Dupixent®)
  - ❑ Mepolizumab (brand name Nucala®)
- ✓ These medications are also approved for asthma, another eosinophilic lung disease.
- ✓ Both medications work by blocking the signaling of molecules that promote the production of eosinophils. This leads to reduced eosinophil counts and decreased lung inflammation.
- ✓ Both medications are administered as a subcutaneous injection. This means that the medication is injected into the fatty tissue layer beneath the skin. Injections can be done at home. Dupilumab is taken every two weeks. Mepolizumab is taken every four weeks.
- ✓ You may not notice that you feel better after starting to take the medication. It is important to recognize that these medications help prevent exacerbations, which is significant because exacerbations can lead to disease progression, morbidity, and death.
- ✓ Common side effects include headache, diarrhea, 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.
- ✓ These medications are expensive, and generic versions are not currently available. Your actual cost will depend on your insurance plan.
- ✓ AlphaNet does not formally endorse or discourage the use of these medications.
- ✓ Your healthcare provider can help determine if one of these medications could be useful for you.

Which COPD Patients Benefit from These Medications?

- ✓ These medications are prescribed for individuals with COPD who:
  - ❑ Have inadequately controlled COPD while on other COPD medications
  - ❑ Have a high number of eosinophils
- ✓ To qualify for a prescription, you typically need to have an eosinophil count of ≥ 300 cells per microliter on a complete blood count (CBC). 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 these medications.
- ✓ 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.
- ✓ 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.

Are These Medications Taken in Place of Other COPD Medications?

- ✓ These medications are considered "adjunctive" therapy. This means that they are 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 (ICS)—when one of these medications is prescribed.
- ✓ Prednisone is an exception to this general rule. These medications likely have fewer side effects than prednisone, and your healthcare provider may recommend replacing prednisone (which is inexpensive) with dupilumab or mepolizumab (which are costly), depending on insurance coverage and eosinophil numbers.