Emerging Drugs for COPD

by AMY MANLEY

New Treatments for COPD You May Not Have Heard Of

Chronic obstructive pulmonary disease (COPD) is a serious condition that causes difficulties breathing and is progressive. The symptoms of this condition include chronic coughing, wheezing, thick mucus discharge, and other symptoms that decrease an individual's quality of life.

Olodaterol Gains FDA Approval

While some treatment methods are available to treat COPD, a new COPD drug has hit the market after receiving FDA approval, and works in a unique manner — through inhalation. The new drug was approved as a result of substantial and concrete evidence regarding the drug's effectiveness. Patients treated with the new drug during the research trials showed improved lung function, which is critical to treating COPD.

The drug, called Olodaterol, is classified as a long-acting beta-adrenergic, which works by helping the muscles located around the airway to stay relaxed. There were over 3,000 patients involved in the study, and those who were treated with Olodaterol, compared to the placebo, showed great improvements.

While the drug has been shown to be an effective treatment method for those with COPD, some patients reported certain side-effects including runny nose, bronchitis, cough, upper respiratory tract infection, diarrhea, dizziness, back pain and joint pain.

The effectiveness of this new drug creates excitement among many COPD sufferers, but the FDA warns that a precaution must be used in some situations. Patients with acutely deteriorating COPD and people with asthma should not use the drug, as the risk of narrowing and obstruction of the respiratory airway is present. Currently, Oldaterol is undergoing trial as part of a combined treatment, along with Tiotropium. Researchers are confident that the phase three trial will offer promising results.

A Look at Roflumilast

Roflumilast is a relatively new drug used to treat moderate to severe COPD. It has been used in Canada and Europe under the trade name Daxas since 2009. The US Food and Drug Administration approved its use in 2011 under the trade name Daliresp.

Drugs for COPD such as bronchodilators and corticosteroids are used to ease symptoms, however they do not stop the progression of COPD. Roflumilast is a new type of medication that works on the inflammatory response of the body. It is not a bronchodilator, so it isn't effective for acute respiratory distress.

The use of roflumilast may increase time between exacerbations. Studies indicate that flare-ups decrease by 17 percent annually in people using the drug. The decrease occurs regardless of whether or not bronchodilators are used simultaneously.

Why Is It Important to Reduce Flare-Ups?

Reducing the frequency of exacerbations is important for several reasons:

- If you have an exacerbation, you are more likely to contract an infection or develop complications of your illness, including pneumonia.
- Flare-ups are physically, financially, and emotionally draining.
- You may experience anxiety or insomnia, which can result in fatigue.
- You may not be able to maintain a healthy diet during flare-ups, which may result in undesirable weight loss or malnutrition.
- Fewer flare-ups results in a lower likelihood of hospitalization.
- Every exacerbation causes more damage to your lungs.
- Your life expectancy decreases with each flare-up.
- The quality of life for you and your entire family decreases if you have frequent exacerbations of your disease.
- With less shortness of breath you may need less medication, which reduces your chances of experiencing undesirable side effects including fluid retention.

Next page: possible roflumilast side effects.

What Does Roflumilast Do?

Roflumilast inhibits the actions of a certain enzyme, resulting in a decrease in inflammation. This is very important because inflammation causes the formation of abnormal lung tissue, a process called fibrosis.

Scar tissue, which is a type of connective tissue, replaces cells within your lungs. As a result, you have fewer lung cells, which in turn decreases your ability to take in oxygen and rid your body of excess carbon dioxide. Fibrotic tissues are hard and inflexible. Breathing becomes less effective, painful and difficult if scar tissue is present.

Inflammation causes swelling and narrowing of your air passages, preventing air from moving freely. In addition to making the work of breathing harder, this can result in fluid building up within your lungs, and can affect your heart too. You may develop serious conditions, such as congestive heart failure and pulmonary edema. These conditions often require hospitalization.

Poor air movement coupled with fluid accumulation within your lungs makes a perfect breeding ground for bacteria to lodge and grow. Your chance of contracting pneumonia increases if secretions pool. It is also harder to cough them up and increases shortness of breath.

How is Roflumilast Used?

The drug may be prescribed if you have moderate to severe COPD symptoms. It is most commonly prescribed to people who have chronic bronchitis, frequent flare-ups, and require the frequent use of inhalers.

Roflumilast is not for people with mild COPD. Consult with your health care professional in order to determine whether it may be beneficial for you or not. The prescribing professional or your pharmacist will give you specific information about the medication and its use.

If your health care professional prescribes roflumilast, it is likely that you will continue to need your regular COPD medications, including inhaled bronchodilators. You may still need steroids in order to open up your air passages and relieve swelling within your airways.

Side Effects of Roflumilast

The most common side effects of the drug include anxiety, depression and insomnia. Contact your health care provider if you experience changes in mood. If you have a history of anxiety, depression or suicidal thoughts, notify your doctor if they are considering ordering roflumilast.

Diarrhea, weight loss and nausea may occur. Monitor your weight regularly. If an unexplained weight loss occurs, notify the prescriber.

Your health care prescriber should reduce the dosage of the medication if you have kidney disease or mild liver illness. According to the U.S. manufacturer you should not take the drug if you have severe liver disease.

Increased rates of prostate and lung cancer have been reported among roflumilast users. You should not take this medication if you take certain medications which are prescribed to control seizures as the roflumilast may not work.

Is Roflumilast Helpful?

You and your health care provider need to weigh the risks and benefits of any drug, including roflumilast, prior to and during treatment.

Roflumilast may help to reduce flare-ups and preserve the health of your lungs, but the drug is not safe for everyone. For example, if you are underweight and the drug causes weight loss, this may impair your health.

Ask your health care provider about the new findings regarding drug tolerance, inflammation and cancer risk.