In a press release on November 4th, 2015, GlaxoSmithKline announced that their novel drug approach to treating severe asthmatics received FDA approval in a unanimous vote. Nucala (mepolizumab) is the first and only approved drug that targets interleukin-5 (IL-5), a protein that is critical for regulating the function of eosinophils, a type of inflammatory white blood cell linked to allergy and asthma mechanisms. While eosinophils are normal cells, people with asthma often have more of them than they should, which contributes to lung inflammation. By binding to IL-5, Nucala reduces blood and lung eosinophil levels, thereby decreasing an important element of inflammation in asthma.

Studies supporting the efficacy of this new drug have been published in prestigious journals like the New England Journal of Medicine and the Lancet. These trials assessed the efficacy and safety of Nucala in patients with severe asthma on high doses of currently available therapies (corticosteroids) in double-blind, randomized, placebo-controlled trials. In the most recent studies, patients received a subcutaneous injection once every four weeks in addition to their normal asthma medications. Patients who received the drug experienced fewer exacerbations and had fewer asthma-related hospitalizations.

Perhaps most importantly, many patients taking daily prednisone were able to reduce their daily oral corticosteroid dose while receiving the Nucala injections as compared to the placebo group. The drug has proven to be very safe in all the published clinical trials with no meaningful increases in side effects. The FDA approves that “Nucala is indicated for add-on maintenance treatment of severe eosinophilic asthma… in patients aged 12 years and older.”

Right here at The Asthma Institute, we performed many clinical trials with these drugs in severe asthma patients. We are happy to report that they experienced excellent responses to the treatment. Existing research suggests that as many as 60% of patients with severe asthma have eosinophilic airway inflammation. That means that more than half of patients with severe asthma could benefit from this method of treatment at the cause of their inflammation. “Our research has allowed us to better understand the specific role eosinophils play in severe asthma,” Eric Dube, Senior Vice President and Head, GlaxoSmithKline Global Respiratory Franchise said. “We aim to offer this medicine to patients as soon as possible.” Nucala addresses the underlying cause of this type of inflammation mechanism. When prescribed as an add-on treatment, Nucala will hopefully help severe asthmatics breathe easier in the near future.

Wishing you and your loved ones a happy and healthy new year from the Asthma Institute!