Better targeting of treatment gives hope to people with severe asthma

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Around five million people in the UK are currently being treated for asthma. Of these, a quarter of a million are unable to get good control of their condition, resulting in frequent, severe, or even life-threatening attacks. A new study brings hope to these patients by investigating whether the drug Omalizumab can be better targeted.

The study is being run by the National Institute for Health Research (NIHR) Translational Research Partnership with support from global pharmaceutical company Novartis. It will investigate whether the antibody treatment Omalizumab could be targeted at those people with severe asthma who will benefit most. Omalizumab is an approved therapy for people who do not respond to steroid treatment and it is hoped that better targeting could save both lives and money in the NHS. It is important to individual patients to know whether the drug, which is given by injection, is likely to work for them.

The study into Omalizumab is enabling researchers to identify which biomarkers are changed by the treatment. This should make it possible to quickly identify those patients who will get the most benefit from Omalizumab treatment, giving them relief from severe symptoms. The NIHR Translational Research Partnership, which brings together the country's leading investigators working in inflammatory respiratory disease, has made it possible to carry out this in-depth biomarker research with this group of severe asthma patients. The study was developed by the NIHR Southampton Respiratory Biomedical Research Unit and is being managed by the NIHR funded Clinical Trials Unit at

the University of Southampton.

Life Sciences Minister George Freeman MP said: "Severe asthma has a huge impact on people's lives, so by targeting treatments more effectively it will not only support patients but make better use of NHS resources.

"We invest over £1 billion each year in the National Institute for Health Research which is helping us to better understand these treatments. It is great news that Novartis has teamed up with the NIHR's expert researchers to ensure that the right treatment is given to the right patient at the right time."

Mark Samuels from the NIHR's Office for Clinical Research Infrastructure, which runs the Translational Research Partnership, said: "With around five million people suffering from asthma in the UK, it is something we can all relate to. We are collaborating with the life sciences industry to beat debilitating illnesses that affect so many of us. Our experts are working closely with companies to bring new treatments to patients faster for a range of inflammatory diseases. This is yet another example of global pharma recognising that Britain has some of the world's best research talent and expertise. It is well recognised that the pharmaceutical industry's drug development model is broken, so companies need to collaborate with us to tackle major diseases."

Study lead Professor Ratko Djukanovic, from University Hospital Southampton and the University of Southampton, said: "Finding better therapeutic approaches for people with severe asthma remains a real unmet health need. Omalizumab is an effective and widely used treatment for this group of patients and it is important to be able to predict which patients are likely to get maximum benefit from it. This new study should help identify the biomarkers that will help us to target this treatment more effectively. It is using sophisticated state-of-the-art

laboratory technologies and builds on the collaborative spirit we have developed in the Partnership."

The study brings together some of the UK's leading asthma researchers across 14 research centres and will recruit 200 patients. It uses novel data from U-BIOPRED, a major Europe-wide research programme establishing innovative testing methods to classify patients into distinct severe asthma types and speed up the development of better treatments for patients with severe asthma. The Translational Research Partnership was a key driver to apply the biomarkers discovered in U-BIOPRED in this new study.

Provided by NIHR Office for Clinical Research Infrastructure