

Scientists to trial long-acting injection for high blood pressure

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Scientists from Queen Mary University of London and Barts Health NHS Trust are trialing an investigational medication for high blood pressure (hypertension) in a clinical study which will give patients an

injection of the medication every six months.

It is the first time that scientists will be trying an injection-based approach with a long-acting medication to treat high blood pressure, and if successful, it could change how high blood pressure is treated for adults with this condition. An injection-based drug to treat cholesterol was recently tested and approved for use by the National Institute for Health and Care Excellence (NICE).

Those diagnosed with high blood pressure typically take tablets once a day to control the condition, with ACE inhibitors being the most common medication prescribed.

The researchers are looking to test the long-acting injection-based approach in approximately 630 patients worldwide with 100 patients across the U.K. The study is funded by Alnylam Pharmaceuticals, with Barts Health NHS Trust serving as the lead site for the trial. The study will run for about three years. It is supported by the National Institute for Health and Care Research (NIHR).

If untreated, high blood pressure considerably increases the risk of heart attacks and strokes. It is one of the most common conditions among adults in the U.K. Roughly a third of adults suffer from it in the U.K. Key risk factors include being overweight, a [poor diet](#) with excess salt and not enough fruit and vegetables, along with smoking and a lack of exercise.

Dr. Manish Saxena, study lead and Deputy Clinical Director at Queen Mary University of London, hypertension specialist at Barts Health NHS Trust said: "We are excited to be trialing this first of its kind approach to research if it is safe and effective for the treatment of high blood pressure.

"Solving health challenges on this scale cannot be achieved by one person or entity alone. We are thrilled to be working alongside Alnylam and combining our expertise to hopefully change [modern medicine](#)."

Providing a wider choice of treatment options to patients will be beneficial as half of people with [high blood pressure](#) are not diagnosed or receiving treatment, according to the British Heart Foundation.

Zilebesiran is an investigational RNA interference (RNAi) therapeutic targeting angiotensinogen (AGT)—a protein produced by the liver and involved in regulating blood pressure. Zilebesiran is administered under the skin and is designed to inhibit the production of AGT preventing constriction of [blood](#) vessels which may help reduce elevated [blood pressure](#).

Provided by Queen Mary, University of London

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