Asthma drug 'gamechanger' could revolutionise treatment

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* Fevipiprant trial indicates it could halve patients’ risk of suffering asthma attacks and being admitted to hospital

A new asthma drug that could revolutionise the treatment of the 500,000 Britons with moderate or severe versions of the condition and reduce the number of deaths from has been hailed as a “gamechanger”.

[Asthma treatment](https://www.theguardian.com/society/2016/apr/08/asthma-inhalers-celebrate-60th-anniversary-with-debate-on-over-prescription) has barely changed over 20 years, with those who cannot easily control their condition relying on inhalers or using steroids which carry a high risk of weight gain, diabetes, osteoporosis and high blood pressure.

But the development of the drug, called Fevipiprant, opens up the possibility that the 250,000 people with this more severe form of the disease could now take a pill twice a day instead of relying on those methods. It could also benefit at least another 250,000 people who have the more moderate form of the disease.

The expert in severe breathing conditions who oversaw the latest trial of the drug said its potential effectiveness was so great that it could halve both patients’ risk of suffering an asthma attack and being admitted to hospital.

The clinical trial of Fevipiprant, conducted by experts at Leicester University, found that it led to a big drop in the the symptoms of asthma, improved sufferers’ lung function, reduced inflammation of the lungs and also helped to repair the lining of patients’ airways.

“This new drug could be a gamechanger for future treatment of asthma”, said Chris Brightling, the senior research fellow and clinical professor in respiratory medicine at Leicester University who led the research study. “I’m really excited by this because this is the first treatment that I’m aware of that has been able to show effects across the board.

“I’m excited by how effective it’s likely to be and also about its potential to reduce the need for patients to take oral steroids. Those people would be able to stop taking those drugs, which would make a huge difference to them.”

The number of people [diagnosed with asthma in the UK has steadily risen](https://www.theguardian.com/society/2016/feb/26/gps-to-trial-new-tests-for-asthma-amid-concerns-about-overdiagnosis) in recent years. Increased air pollution, chlorine in swimming pools and modern hygiene standards are believed to be some of the factors in the development of the disease, according to the NHS.

If further trials confirm the drug’s potential, it could become available to patients on prescription from a doctor in “more than two but less than three years’ time”, Brightling said. It works by blocking inflammatory cells from moving from the patient’s blood into the walls of their airways and separately it speeds up repair of airway linings.

[Asthma UK](https://www.asthma.org.uk/) hailed Fevipiprant’s “massive promise”. Doctors hope it will significantly reduce suffering among those asthmatics who are at the greatest risk of dying and Britain’s death toll of 1,400 lives a year lost to the condition, two-thirds of which experts believe are avoidable. While asthma deaths were usually complex, “the introduction of any new treatment would be likely to reduce asthma deaths but I can’t say by how much,” Brightling said.

“This research shows massive promise and should be greeted with cautious optimism,” said Dr Samantha Walker, [Asthma](https://www.theguardian.com/society/asthma) UK’s director of research and policy. However, she added: “More research is needed and we’re a long way off seeing a pill for asthma being made available over the pharmacy counter, but it’s an exciting development and one which, in the long term, could offer a real alternative to current treatments.”

The Leicester trial reported in the Lancet involved 61 people and was jointly funded by the NHS’s research arm, the [National Institute for Health Research](http://www.nihr.ac.uk/), and the European Union and also Novartis, the Swiss drug company behind Fevipiprant.

It is a [phase-III trial](http://www.nhs.uk/Conditions/Clinical-trials/Pages/Introduction.aspx), meaning the drug has already undergone small-scale safety tests in patients, as well as initial analysis of any side effects. This trial is aimed at establishing with more precision how effective the drug is in larger numbers of patients.

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Brightling is leading another clinical trial into Fevipiprant’s effectiveness, which involves 850 patients, though it will not produce results until 2018, and other studies are planned.

Brightling hopes that, if Fevipiprant proves effective and is approved by medicines regulators, it will lead to asthmatics becoming acutely unwell less often and so needing less care, and make asthma less burdensome for the NHS, which currently spends over £1bn a year treating it. There are 5.4 million diagnosed asthmatics in the UK, of whom 1.1 million are under 15. Someone in the UK suffers a life-threatening asthma attack every ten seconds, Asthma UK says.

A total of 1,418 people died from asthma in the UK in 2015 – more than three every day. Although 19 were aged 14 and under, the vast majority were those aged 15 and above. The total figure of 1,418 asthma deaths was 210 higher than the 1,208 seen in 2014. Females are much more likely to die than males. Last year 1,022 girls and women died compared with 396 boys and men.

However, an audit of asthma deaths found more than half of those who died were only being treated for mild or moderate asthma before they passed away. The others were among those with the most severe asthma which is most resistant to treatment.

“The UK has one of the highest rates of asthma prevalence in the world with over one million children suffering from the disease, so this has the potential to make a massive impact on many children’s lives. Previously, new treatments for asthma required regular injections, so this is a significant advancement,” said Prof Jonathan Grigg, a respiratory expert at the Royal College of Paediatrics and Child Health. But he added the study’s small size meant other, larger trials needed to be carried out to establish whether the drug would be suitable for children.