

Pregnant women asked to take part in a vaccine trial to tackle a severe baby disease

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Credit: St. George's University of London

Expectant mothers in London are among the first in the world to participate in a clinical trial of a possible vaccine against a virus which causes life threatening breathing problems in babies.

The illness called [respiratory syncytial virus](#) (RSV), causes infections in the lungs and breathing passages, and affects nearly all infants by the age of two.

RSV is capable of infecting all age populations, including adults and older children, but often in these populations, it only causes mild cold-like symptoms.

However, in vulnerable populations, such as younger [babies](#) and older adults, RSV can lead to life-threatening lung infections such as bronchiolitis and pneumonia, and could lead to death. In babies, RSV results in around 30 deaths a year in the UK, and has even greater mortality in lower income countries.

During the winter months the virus causes epidemics responsible for up to one in six hospital admissions in children less than a year old every year and, long-term, can lead to the development of persistent wheeze and asthma.

Now, doctors at St George's University of London and St Georges University Hospitals NHS Foundation Trust are offering women receiving antenatal care the chance to participate in a trial with this investigational RSV vaccine designed to generate proteins in the mother's blood – known as antibodies – which can pass to babies in the womb, and once born, will hopefully protect the babies for a minimum of 3 months.

Paul Heath, Professor in Paediatric Infectious Diseases at St Georges, University of London, said: "This disease is the leading cause of hospital admission in young children and globally millions of children are affected by RSV every year.

"An effective vaccine could prevent thousands of babies a year having to

be admitted to [hospital](#) in the UK and around the world and has the potential to save hundreds of thousands of lives."

Prof Heath, who is also a consultant in paediatric infectious diseases at St Georges University Hospitals NHS Foundation Trust, added: "We are very excited to be part of an exciting international study."

The trial, which is also being run at the John Radcliffe Hospital in Oxford, Southampton Children's Hospital and Bristol Royal Hospital for Children in Bristol and will involve between 4600-8,000 women worldwide, is being funded by Novavax Inc., a clinical-stage biotechnology company based in the United States, and the Bill and Melinda Gates Foundation.

Antibodies recognise foreign substances such as germs and alert the immune system, which attempts to destroy them and/or stop them from replicating.

Immunisation in pregnancy is already used to protect babies against diseases such as whooping cough, tetanus and influenza and study investigators hope that this investigational RSV vaccine will be similarly effective at preventing RSV disease.

Provided by St. George's University of London

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