

Clinical trial of malaria vaccine begins in Africa

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The vaccine, RTS,S, developed by GlaxoSmithKline (GSK) Biologicals and PATH Malaria Vaccine Initiative (MVI), is currently in phase III clinical trials and has previously reduced episodes of malaria in infants and young children by more than 50%. The Liverpool team, in collaboration with the University College of Medicine, Malawi, are working in Blantyre over the next three years to investigate how to maximise its effectiveness when delivered through the childhood immunisation programme.

Malaria is a life-threatening [parasitic infection](#), resulting in more than 200 million reported cases each year and approximately 800,000 deaths. In Africa a child dies of malaria every 45 seconds and the disease accounts for 20% of all childhood deaths. Scientists will assess the possible benefits of providing the vaccine to newborn babies, similar to the routine programme currently used for other vaccines, such as [BCG](#) for tuberculosis, [Hepatitis-B](#) and oral polio vaccines.

The team will examine the performance of the vaccine as it is administered to infants at different stages between birth and nine months of age, alongside the standard set of immunisations used in national programmes for young children. Studies have so far suggested that the vaccine could be safely integrated with other vaccines in the World Health Organisation's Expanded Programme for Immunisation (EPI) schedule.

Leading the study from Malawi, Dr Desiree Witte, from the University's

Institute of Infection and Global Health, said: "Young children are particularly susceptible to infection with malaria and it is important that vaccines are introduced into the immunisation programme as early as possible. There is no licensed vaccine available against malaria and currently the [candidate vaccine](#) developed by GSK and MVI, is the most clinically advanced [malaria vaccine](#) in the world. The evaluation of different immunisation schedules will help define the programme needed for the vaccine to be administered successfully."

Professor Nigel Cunliffe, also from the University's Institute of Infection and [Global Health](#), added: "Over the past few years there have been encouraging results from studies of vaccines aimed at tackling some of the major diseases common to children living in Africa, including diarrhoea, pneumonia and malaria. It is hoped that in the near future vaccines against these diseases will become a standard part of the immunisation schedule across the region. It will therefore become increasingly important for us to understand how the vaccines will work when administered alongside each other."

Professor Tom Heikens, Head of the University College of Medicine's Department of Paediatrics and Child Health, Malawi, said: "As well as developing this important area of research, the work is allowing postgraduate students at the College to gain valuable insight into child health and the medical challenges Malawi faces. Collaborations such as this contribute greatly to identifying the next generation of researchers to take this important area of study forward."

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Provided by University of Liverpool

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