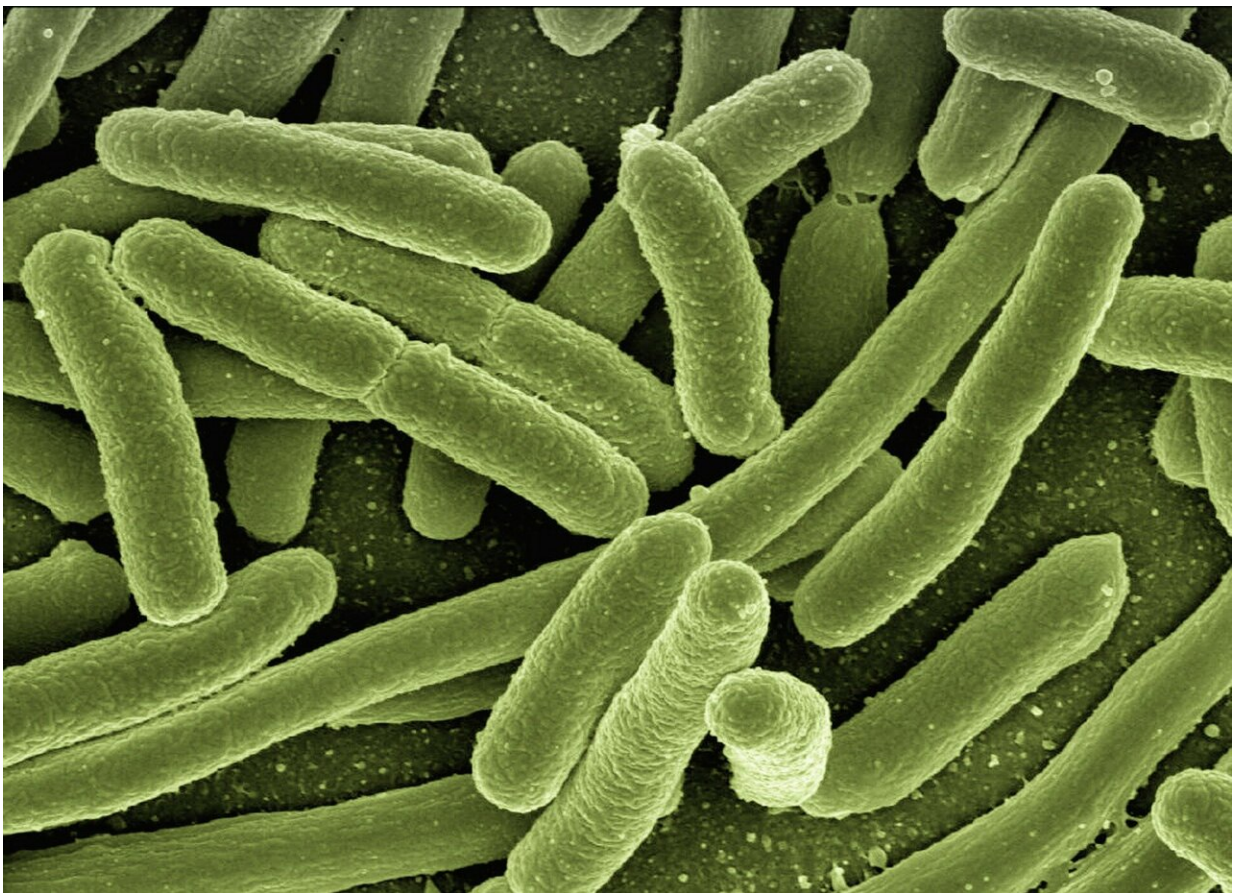


Universal protocols for Strep A surveillance set to transform research for world-first vaccine

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A global consortium of Group A Streptococcus (Strep A) researchers has launched a series of best practice surveillance protocols designed to unite international research efforts for a world-first Strep A vaccine.

The Strep A Vaccine Global Consortium (SAVAC), based at the International Vaccine Institute, spear-headed the protocol development to provide clear case definitions for diseases caused by Strep A and guide researchers with the design and planning of clinical trials measuring [vaccine](#) efficacy and safety.

Featured in *Open Forum Infectious Diseases*, the surveillance protocols address each of the seven [disease](#) endpoints responsible for the majority of the global health and [economic burden](#) of Strep A—pharyngitis; impetigo; cellulitis; invasive Group A Strep infections; [acute rheumatic fever](#) (ARF); [rheumatic heart disease](#) (RHD) and acute poststreptococcal glomerulonephritis.

Professor Jonathan Carapetis, Director of the Telethon Kids Institute in Perth, Western Australia, is a SAVAC Executive Committee member alongside the world's leading experts in vaccine development and [infectious diseases](#).

"Strep A is one of the deadliest organisms in the world, and it causes the broadest range of health problems of any bug—ranging from sore throats and skin sores through to deadly sepsis, flesh eating disease, scarlet fever and toxic shock," Professor Carapetis said.

"If you add in a massive killer like rheumatic heart disease—a major problem in low-income countries and our own Indigenous populations—Strep A truly is the biggest infectious killer that barely anyone has heard of."

"There is vital research underway in every corner of the world,

identifying and monitoring the burden of disease over time, detecting trends, and most excitingly developing new public health interventions."

"The new protocols are designed to be used for Strep A surveillance studies throughout the globe, making sure that research studies can be compared with each other, and that results from different populations and different studies can be compiled and analyzed together."

"Places where these protocols are used will also be the perfect locations to trial new Strep A vaccines when they get to that stage. This is critical as we have a major global effort to develop a safe, effective, and affordable Strep A vaccine to prevent these diseases among those who need it most," Professor Carapetis said.

Telethon Kids Institute researchers have already put the new pharyngitis protocol into practice, following its recommendations for the design of the Sore Throat Study involving 1,050 healthy Australian children.

"Conducted over a 12-month period, this study will evaluate how many children got sore throats, what was the most common cause of a sore throat and how [sore throats](#) could change during different seasons of the year, which will help inform how a vaccine could be used to prevent a wide range of illnesses caused by Strep A," Professor Carapetis said.

Co-Chair of the SAVAC Burden of Disease Working Group that oversaw these protocols, Dr. Chris Van Beneden from the US CDC Foundation, said a key aspect of robust surveillance for Strep A involves generating updated regional disease burden estimates and developing platforms for future impact evaluation.

"Given that the disease spectrum associated with Strep A is broad and complex, accurately estimating the global burden of disease is challenging. In particular, current estimates underrepresent the extent of

disease in low-and middle-income countries," Dr. Van Beneden said.

"With vaccine development gaining momentum, backed up by the 2018 World Health Assembly adoption of a global resolution on ARF and RHD—we envisage these protocols will provide a much clearer picture of mortality and infection rates, unite global research activities and accelerate our combined efforts for a world-first Strep A vaccine."

More information: Hannah C Moore et al, Harmonizing Surveillance Methodologies for Group A Streptococcal Diseases, *Open Forum Infectious Diseases* (2022). [DOI: 10.1093/ofid/ofac210](https://doi.org/10.1093/ofid/ofac210)

Provided by Telethon Kids Institute

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