

Novel method identifies children with rheumatic disease eligible for life-saving vaccine

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The results of a study presented today at the European League Against Rheumatism Annual Congress (EULAR 2015) Press Conference showed that the chickenpox (varicella) vaccine can be effective and safe even in children with paediatric rheumatic disease receiving immunosuppression treatment. By using a checklist to pre-screen children, the investigators were able to identify diverse patient groups suitable for vaccination, protecting them from a potentially life-threatening infection.

Rheumatic diseases are [autoimmune diseases](#), arising when the body attacks and damages its own tissues. As such, they are typically treated with [immunosuppressant drugs](#) to dampen the immune response, however this [immunosuppression](#) also leaves patients at risk of infection.

"Although [chickenpox](#) is a common and often mild childhood illness, it can be life-threatening in children with a suppressed immune system, such as those being treated for [rheumatic disease](#). While a vaccine is available, its safety in children receiving immunosuppression has long been debated," said study investigator Dr. Fabian Speth, German Center for Pediatric and Adolescent Rheumatology, Germany. "By pre-screening children using easy-to-obtain immunological criteria, we were able to safely and effectively vaccinate a major group of immunocompromised children, without having to stop their treatment. This is a significant development in preventing a persisting, and sometimes fatal, virus."

Primary infection with [varicella zoster virus](#) (VZV) causes chickenpox. A member of the herpesvirus group, VZV can persist in the body and reactivate at a later date causing shingles. Chickenpox is highly infectious. Spread throughout households is very common with infection in up to 90% of vulnerable individuals who come into contact.

21 VZV-susceptible children aged 2-18 years old took part in the study. All of the children were receiving immunosuppression therapy for clinically inactive paediatric rheumatic diseases, such as juvenile idiopathic arthritis or connective tissue diseases. Prior to vaccination, all of the children were screened according to an immunologic checklist. Patients meeting the safety criteria received either a first or second dose of the vaccine without suspension of their immune-suppression therapy.

There was no evidence of vaccination-induced varicella or associated complications. None of the patients developed a disease flare and no change in treatment regimen was required in any patient during a minimum follow up of four weeks.

Provided by European League Against Rheumatism

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