

Rates of child allergy to antibiotics lower than believed

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Eight in 10 children who reported being allergic to common classes of antibiotics used to treat respiratory, skin and intestinal infections were not truly allergic to it, a new study shows.

The research, led by the Murdoch Children's Research Institute (MCRI)

and published in *Pediatrics*, found a large majority of children needlessly avoid certain classes of [antibiotics](#) and some wait years to have their allergy retested.

Study senior author Dr. Amanda Gwee, from MCRI and the University of Melbourne's Department of Paediatrics, said clearing someone of having an antibiotic allergy could prevent lifelong, unnecessary avoidance of certain antibiotic classes and help prevent [antibiotic resistance](#).

The study looked at non-[beta-lactam antibiotics](#) (NBLAs) which are commonly prescribed in children. Previous data indicated that up to 27.2 percent of the pediatric population have a true allergic reaction to NBLAs.

Study lead author, Dr. Lisa Grinlington from The Royal Children's Hospital said antibiotics were among the most commonly prescribed medications for children, with NBLAs accounting for almost half of those prescribed in Australian pediatric hospitals.

Despite this, data on NBLA [allergic reactions](#) in children has been limited until now.

The study involved 141 [children](#) up to 18 years of age with a suspected NBLA allergy who had skin testing and/or an injected or oral challenge test at The Royal Children's Hospital. Overall, just 18.1 percent were truly allergic.

It found the usual time from the initial reported reaction to allergy evaluation was 1.9 years but that extended out as long as 14.9 years in some cases.

Dr. Grinlington said improved and timely access to formal allergy

evaluations were urgently needed to preserve the effectiveness of first-line antibiotics, with significant implications for the patient, hospital, and health care system.

A previous study found the clinical and economic costs to the hospital system as a result of a patient having an antibiotic allergy was up to \$609 per patient compared with those without an [allergy](#).

"People with antibiotic allergies given alternative antibiotics that are not the first-line treatment for their infection, have longer hospital stays and may have an increased rates of infection with resistant bacteria," Dr. Gwee said.

More information: Lisa Grinlington et al. Non- β -Lactam Antibiotic Hypersensitivity Reactions, *Pediatrics* (2019). [DOI: 10.1542/peds.2019-2256](#)

Provided by Murdoch Children's Research Institute

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