

Practice Point

Beta-lactam allergy in the paediatric population

Tiffany Wong, Adelle Atkinson, Geert t'Jong, Michael J. Rieder, Edmond S. Chan, Elissa M. Abrams

Canadian Paediatric Society, Allergy Section, Ottawa, Ontario

Correspondence: Canadian Paediatric Society, 100–2305 St Laurent Blvd, Ottawa, Ontario K1G 4J8. E-mail info@cps.ca, website www.cps.ca

For the full text document, visit www.cps.ca/en/documents

Beta-lactam allergy is commonly diagnosed in paediatric patients, but over 90% of individuals reporting this allergy are able to tolerate the medications prescribed after evaluation by an allergist. Beta-lactam allergy labels are associated with negative clinical and administrative outcomes, including use of less desirable alternative antibiotics, longer hospitalizations, increasing antibiotic-resistant infections, and greater medical costs. Also, children with true IgE-mediated allergy to penicillin medications are often advised to avoid all beta-lactam antibiotics, including cephalosporins, which is likely unnecessary in greater than 97% of those reporting penicillin allergies. Most patients can be safely treated with penicillin or amoxicillin if they do not have a history compatible with IgE-mediated or systemic, delayed reactions such as Stevens-Johnson syndrome (SJS), serum sickness-like reactions, drug reaction with eosinophilia and systemic symptoms (DRESS) syndrome, or acute generalized exanthematous pustulosis (AGEP). Guidance is provided on how to stratify risk of beta-lactam allergy, and on test dosing and monitoring in the outpatient setting for patients deemed low risk. Guidance for patients at higher risk of beta-lactam allergy includes criteria for appropriate referral to allergists and the use of alternative antimicrobials, such as cephalosporins, while awaiting specialist assessment.

Keywords: *Beta-lactam; Challenge; Drug allergy; Penicillin*

EXECUTIVE COMMITTEE OF THE CANADIAN PAEDIATRIC SOCIETY ALLERGY SECTION

Executive members: *Elissa M. Abrams MD (President), Edmond S. Chan MD (Secretary-Treasurer)*

Principal authors: *Tiffany Wong MD, Adelle Atkinson MD, Geert t'Jong MD, Michael J. Rieder MD, Edmond S. Chan MD, Elissa M. Abrams MD*