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## 492 Prevalence of Self-reported Adverse Drug Reaction/Drug Allergy in a Singaporean Paediatric Population

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**RATIONALE:** Adverse drug reaction (ADR)/drug allergy (DA) is mostly evaluated in the clinical setting and rarely studied in a general population setting. In this study, we estimated the cross-sectional prevalence of ADR/DA in Singaporean schoolchildren.

**METHODS:** School-children aged 6 to 16 from randomly selected schools were screened for self-reported DA/ADR using parent-administered questionnaire during July 2005 to April 2006.

**RESULTS:** 4880 (79.7%) valid responses were returned. The prevalence of self reported ADR/DA was 5.4% (n = 263). Of these 263 subjects, 56.7% (n = 149) reported ADR / DA to antibiotics, 24.0% (n = 63) to non-steroidal anti-inflammatory drugs (NSAIDS), 10.3% to others while the remaining 9.1% were unidentified. Penicillins were the most frequently noted class of antibiotics (n = 73), followed by co-trimoxazole (n = 20), and macrolides (n = 22); miscellaneous antibiotics mentioned include chloramphenicol, cephalosporins and tetracyclines, each with scores five or less. The most commonly reported symptom are those affecting the skin (n = 154, 58.6%), followed by the face (21.7%, n = 57), and 6.5% (n = 17) reported affected breathing. This is no statistical difference (p>0.05) between the prevalence of ADR/DA between boys (5.7%) and girls (5.0%).

**CONCLUSIONS:** In this first ever report of ADR/DA prevalence in our Singaporean paediatric population, we found that self-reported ADR/DA is associated most commonly with beta-lactam antibiotics and NSAIDS, while the occurrence of ADR/DA appears to be unassociated with gender.

**Funding:** National Medical Research Council (NMRC)

## 493 Locating Evidence-based Literature in Immunology Using PubMed/MEDLINE

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**RATIONALE:** Using the best available evidence, along with one's clinical expertise, is an important part of making patient care decisions. One way to locate evidence in the medical literature is to search databases, such as PubMed/MEDLINE, to target clinical research based on sound methodologies for specific patient care issues.

**METHODS:** PubMed's *Clinical Queries* feature provides a mechanism to limit search retrieval to article citations reporting applied clinical research with specific methodologies such as randomized controlled trials or systematic reviews. Using built-in search filters, PubMed's *My NCBI* feature provides a mechanism to stay updated on health care issues or build collections of citations on topics of research interest. With *My NCBI* Filters users can easily access full text and specific library collections.

**RESULTS:** Using PubMed features such as *Clinical Queries* and *My NCBI* filters provides ways to focus on clinically relevant evidence when making patient care decisions related to areas such as diagnosis, etiology, treatment, or prognosis. The *My NCBI* Saved Searches & Collections feature stores saved searches, schedules automatic e-mail updates and stores collections of citations.

**CONCLUSIONS:** Effective literature searching skills are an important component of practicing evidence-based medicine to support patient care. By using *Clinical Queries* and *My NCBI* through PubMed, clinicians can optimize patient outcomes in immunology.

**Funding:** UCLA

## 494 Childhood Obesity as a Possible Aggravating Factor of Atopic Dermatitis

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**RATIONALE:** Although growing attention is being paid to the association between obesity and asthma and allergy, there exists no data concerning the relationship between obesity and atopic dermatitis (AD).

**METHODS:** Multivariable analyses were made to detect a relationship between childhood obesity, defined as a % body mass index (BMI) of more than 95 of each age and sex, and allergic diseases, by using the data of an epidemiological survey of more than 50,000 school-aged children conducted between '96 and '97 (Kusunoki T et al. *J Allergy Clin Immunol* 1999; 103: 1148-1152).

**RESULTS:** Although there was no statistically significant association between obesity and allergic diseases in the overall population, children with AD showed a higher BMI (p = 0.03). Consistent with previous reports, obese girls, but not boys, had a higher prevalence of bronchial asthma (p = 0.009). Unexpectedly, among those with AD, the severity of AD was significantly associated with the degree of obesity (the rates of obese children among those with mild, moderate and severe AD were 4.58%, 6.27% and 6.74%, respectively, p = 0.01).

**CONCLUSIONS:** Childhood obesity is shown to be linked, with statistical significance, to the disease severity of AD. Although the mechanisms remain to be explored, the already documented disturbances in the dietary habits and routine daily life of obese children, and/or changes in the immunological balance of obese children, might be worth pursuing as possible aggravating factors of AD.

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## 495 Prevalence of Atopy in Rural China among Children and Adults

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**RATIONALE:** The prevalence of sensitization to foods and aeroallergens has not been previously described in a large unselected rural Chinese population.

**METHODS:** The data was derived from a community-based twin study in Anqing, China. Skin prick testing, using Multi-Test II, was performed on 2108 subjects to 9 foods (cow milk, egg white, soybean, wheat, peanut, walnut, fish mix, shellfish mix, sesame seed) and 5 aeroallergens (*Alternaria tenuis*, dust mite mix [*D. farinae* and *D. pteronyssinus*], cat hair, dog epithelia, cockroach mix [American and German]) with histamine and saline controls. Sensitization was defined as a mean wheal diameter 3 mm or greater than the saline control. Atopy was defined as sensitization to  $\geq 1$  allergen. The analysis was stratified by gender and age (children [11-17 years] and adults [ $\geq 18$  years]).

**RESULTS:** The analysis included 927 same-gender twin pairs (n = 1854 subjects); 58.2% were male (n = 1080). Ages ranged from 11 to 70 years; 44.4% were children (n = 824). Atopy was observed in 46.7% (n = 866) of the total subjects, with 65.3% (n = 556) of the atopic subjects sensitized to  $\geq 2$  allergens. The most common sensitizing food allergens were shellfish (16.2%, n = 301) and peanut (12.4%, n = 230), with prevalence higher in children compared to adults (p<0.001 for both). The most common sensitizing aeroallergens were dust mites (30.5%, n=566) and cockroach (24.9%, n=461), with prevalence higher in males (p<0.01 for both).

**CONCLUSIONS:** Sensitization to foods and aeroallergens was common in this rural Chinese population, particularly to shellfish, peanut, dust mites, and cockroach. The prevalence of atopy varied by age and gender.

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