



NEWSLETTER

EIGHTH EDITION – APRIL 2013

ALLSA REPORT FROM THE CHAIRMAN



Dear Colleagues

April marks World Allergy Week (8-14 April) and ALLSA has been most active in promoting this world-wide event. The theme for this year's week has been 'Food Allergies - A rising global health problem'. In addition in South Africa we have added a focus on the management of Anaphylaxis as we believe that South Africans with this condition are not as well managed and advised as they should be. ALLSA has partnered with Oz Health Care Communication to bring allergy knowledge to all South Africans through many radio interviews and press articles. I need to thank the ALLSA Excom for joining me in making this event the spectacular success it has been. Thank you to Adele Pentz for handling some of the Afrikaans radio shows and to Lynne and Bradley at Oz.

I have had some remarkable feedback from the World Allergy Organisation and specifically Prof Ruby Pawankar. She has been very complementary about ALLSA's initiative this year. She asked me to remind you that WAO has Anaphylaxis Guidelines and the WAO White Book on Allergy on its website. Follow this link to read them. <http://www.worldallergy.org/publications/>

May I suggest again that you visit our website – www.allergysa.org to see what's new in Allergy and specifically our new material Mike Levin has created a most remarkable Register for patients with Anaphylaxis. Through this site we are hoping to offer South Africans, who have had episodes of Anaphylaxis, the help and care they deserve.

Enjoy reading this issue of the newsletter. I trust you have found that ALLSA is helping you to help your allergic patients.

Regards

Robin Green

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WORLD ALLERGY WEEK
8 - 14 April

Theme for 2013
Food Allergy
A rising Global Health Problem

INTRODUCING: DR ANDRE VAN NIEKERK

Andre has written about himself:



I did my pre- and post graduate medical training at Pretoria University. Prof Wittenberg motivated, and assisted, me towards sub-specialist training in Pediatric Pulmonology after qualifying as a Paediatrician in 1996. We could not follow official fellowship programs in South Africa at the time and Prof Wittenberg arranged post graduate study time for me with the empire builders of the day. I am still grateful for the sub-specialist time that I could spend with people like Prof Robbie Gie at Tygerberg and with Prof Cas Motala, Prof Eugene Weinberg and with Prof Max Klein at Red Cross.

I also received a SATS Junior Training Fellowship and used the money to do some international training courses and had the opportunity to visit Prof Simon Godfrey in Jerusalem. SATS pursued registration for Paediatric Pulmonologists at the time and I was one of the initial Paediatric Pulmonologists to be registered in South Africa.

I worked as a Consultant and Lecturer at Pretoria University for three years and then exchanged Academic Medicine for Private Practice in 1999. I still regret this decision, but my Private Practice mission has been to achieve academic standards as far as possible. We managed this with a clinic set-up that included consultants like Prof Eugene and Prof Max, by staying involved in clinical research, being involved with medical societies and by hand picking partners like Marilee Kriel and Despina Demopoulos who share a similar vision. All three of us often speak at CME events.

Prof Cas Motala motivated me to be more actively involved in ALLSA. This is my fourth term on ALLSA Excom. The June congress will be the 4th that I am convening. I am the ALLSA Treasurer at the moment and am also striving towards the organisation of PID as an ALLSA function. I received an ALLSA Distinguished Service award in 2006.

I married Ilsa, while we were still at university. She is an interior design graduate from Tukkies. Our family home is in Ballito now. Our oldest son is a commercial pilot and our older daughter is a final year information design student - also at Tukkies. The commander of our household is a three year old semi-planned "laatlammetjie" that followed when the nest became too empty!

Andre it is an honor and privilege working with you on ALLSA Excom!

FOCUS ON: PROF PAUL POTTER



MBChB, DCH(SA), BSc(Hons) Immunology,

MD Cape Town, FAAAAI, FAAAAI

Paul is the Head of Allergology and a full Professor in the Department of Medicine, Groote Schuur Hospital and Director of the Allergy Diagnostic and Clinical Research Unit of the University of Cape Town Lung Institute.

In 1986 he was awarded a visiting fellowship at the National Institutes of Health, Bethesda, Maryland, USA, where he spent 18 months working on his MD thesis in molecular biology entitled “In vitro studies of factors which influence the ligand binding, function, immunogenicity and genetic regulation of the Beta-2 adrenergic receptor in asthma”.

He developed an interest in Allergy as a Paediatric Registrar at Red Cross Hospital and was appointed as the first full time Paediatric Allergy Registrar at Red Cross Hospital in 1982 under Prof Eugene Weinberg, during which he also obtained a BSc (Hons) Immunology (with distinction), prior to doing his Fellowship in the USA (with Dr Craig Venter and Michael Kaliner as supervisors). On his return to RSA he redirected his research efforts in to developing the field of Allergology in South Africa focussing on allergen characterization.

He served on the World Allergy Organization Board of Directors from 2008-2011, its Speciality and Training Council from 2004-2011 and was the first author of the First Global Guidelines on Training Requirements for Medical Students in Allergy, published in 2009. In addition he served on the WAO Councils on Education, Communication, Allergen Immunotherapy and the Editorial Board of WAO journal. He is also on the Executive Committee of the ARIA Guidelines 2004-2013.

He was Founding member and the first Honorary Secretary of the Allergy Society of South Africa, and its second Chairman. He also served as the Treasurer of the Society and Head of its Research Award Committee and Convenor of the first South African Allergy Society Congress in Cape Town. He also founded the ALLSA Handbook of Allergy and served as Editor for the 1994 and 2001 editions and is a co-editor for the 2010 edition.

He has published over 370 articles: 130 in international peer reviewed journals including 6 citation classics, 60 in South African peer reviewed journals, 130 in South African CME journals, 34 chapters in books and other technical reports.

He founded the Allergy Diagnostic and Clinical Research Unit at the University of Cape Town Lung Institute in 1999 as a centre of excellence in the clinical and laboratory world class centre of excellence for the diagnosis and management of allergic patients, both for the private sector and for indigent patients with allergies. He is also a co-founder of the South African Primary Immunodeficiency Register with Dr Monika Esser. He worked tirelessly for the recognition of Allergology as a Subspeciality in South Africa which was finally gazetted in 2012. He was grandfathered as a Subspecialist in Allergology in 2013.

FOOD ALLERGY – A Rising Global Problem

Dr Claudia Gray

Red Cross Children's Hospital

The rise in food allergies has been dubbed the second wave of the allergy epidemic and has been best described in Westernised countries. The “Healthnuts” study in Australia has reported a food allergy rate of up to 10% in the first year of life. There is a dearth of data from South Africa but clinic attendances and anecdotal evidence suggest that the rise in food allergies is a reality here too. This dictates a need for further studies looking at food allergy prevalence as well as the optimal approach to food allergy diagnosis and management in our setting.

Recent Research Activity in South Africa Around Food Allergy Prevalence and Patterns

We have recently completed a study looking into food sensitisation and IgE-mediated food allergy prevalence in a population of patients at Red Cross Children's Hospital with moderate to severe eczema. Eczema patients make up a “high risk” population for IgE-mediated food allergy, and in Westernised countries studies have suggested that 30-40% of children with moderate to severe eczema have one or more IgE-mediated food allergies. Our study population was made up of 100 children aged 6 months to 10 years (median age 4 years), amongst them 41 of Mixed descent (Coloureds) and 59 Xhosas. In cases equivocal for food allergy, open oral food challenges were performed (71 food challenges in 47 patients).

Our hypothesis of South African children, even those at “high risk” such as eczema patients, being spared of food allergies was disproven emphatically. Important results are summarised below:

- In this study population, 61% of children (59% of Coloureds and 63% of Xhosas) were sensitised to one or more of 6 common food allergens: hen's egg, cow's milk, peanut, cashew nut, soya, wheat and white fish (cod or carp).
- 40% were shown to have a true food allergy (either by food challenge or by clear recent history together with sensitisation). Broken down by race, 49% of Coloureds and 34% of Xhosas had at least one food allergy.
- Although the allergy rate in Xhosa patients is impressive, the proportion of those allergic to those sensitised is significantly lower in Xhosas than Coloureds ($P=0.026$). In the sensitised Xhosas, 54% were actually allergic; in the sensitised Coloureds, 83% were found to be allergic. In other words, if you have a Xhosa patient with atopic dermatitis and a positive skin prick test to a common food, the chance of them actually being allergic, is 54%.

- The most common IgE- mediated allergies were to egg (25% overall were egg allergic), peanut (24% overall), cashew nut (3% overall), cow's milk (2% current and 8% past reaction, now outgrown), fish 1%. No current allergies to wheat or soya were documented in this population.
- Amongst the Xhosas, 15% had a proven peanut allergy and 24% had an egg allergy.
- Amongst the Coloureds 36.6% had a peanut allergy and 27% had an egg allergy.
- Overall, 21% of those with peanut allergy had signs of a severe allergy with respiratory involvement, and 12% of those with an egg allergy.



Some interesting findings from the study using these methods are summarised below:

1. *History*- the perception of a food allergy was higher than the real rate, for example 43% of patients thought they were egg allergic, whereas 25% were actually diagnosed with an egg allergy.
2. *Skin Prick Tests* were 100% sensitive in picking up food allergic patients (but only 65% specific). Fresh milk and egg were more sensitive than commercial extracts of milk and egg.
3. *Specific IgE tests* overall missed only one case of allergy in this cohort (egg allergy) hence was 97.5% sensitive; however, ISAC testing missed 6 cases (15%) of food allergy hence should not be considered as a first line test for food allergy in children.
4. Especially in the case of egg and peanut, the traditionally used *95% PPV for both SPT and specific IgE* produced a significant number of false positives hence should be reconsidered in the South African setting and perhaps even by ethnicity. For example, using the traditional SPT cut off for peanut of 8 mm, The PPV in the Coloured population was 83% and in the Xhosas only 53%. ROC analysis showed more optimal results at 9 mm (Coloureds) and at 11 mm (Blacks) . This will be discussed in detail in a future publication based on the study.
5. *Food challenges*:
71 food challenges were performed in 47 patients; 32 of these challenges were positive (ie the patient reacted). In other words, in almost half the patients in the study, history and IgE based laboratory tests were not conclusive and a food challenge was required for definitive diagnosis. This confirms the vital role of food challenges in food allergy diagnosis.

PATIENT EDUCATION: FOOD ALLERGY

DEFINITION AND CLASSIFICATION

- *Food hypersensitivity* is the non-specific term which refers to any adverse (untoward) reaction to food or food additives.
- *Food allergy* is a type of food hypersensitivity in which the body's immune (defence) system is directly involved and overreacts to a particular protein in that food.
- There are several types of hypersensitivity reactions to food which are *non-allergic*.
- Some of the symptoms of *food intolerance* and food allergy are similar, but the differences between the two are very important.
- Food allergy reactions can be life-threatening, in some cases even in response to tiny amounts of the food, so people with this type of allergy must be very careful to avoid their food triggers.
- Food intolerances are not life threatening and the person may often tolerate small amounts of the triggering food, and have symptoms only on intake of larger amounts.
- Another interesting cause of a non-allergic reaction is psychological reactions to foods in people who are convinced that they cannot tolerate a certain food.

CLASSIFICATION OF ADVERSE REACTIONS TO FOOD

