# The Immunology and Allergy Unit at Campbelltown Hospital

The Immunology and Allergy Unit at Campbelltown Hospital offers a comprehensive, multidisciplinary service for both paediatrics and adults. This includes, but are not limited to Respiratory Allergy, particularly Severe Asthma; Dermatological conditions such as Atopic Dermatitis and Urticaria; drug allergy, including a drug testing service for Perioperative Anaphylaxis and antibiotic and stinging insect allergy; all aspects of food allergy, with a Food Challenge Clinic in the Paediatric Service. We conduct a specialised Angioedema and Urticaria Clinic catering for those requiring Immunomodulating Therapy and the management of rare diseases.

Campbelltown Hospitals Immunology and Allergy Unit have been at the forefront in the treatment of allergic and immunological disease for many years. The Department has increased services to include patient management with new home based therapies, new and improved drug therapies and diagnostic testing.

#### **Our Vision statement:**

- 1. Provision of an excellent treatment service in adult and paediatric areas.
- 2. The conduct of research clinical and aerobiological; education and training at various levels including community, patients, trainee doctors and nursing staff.
- 3. To link this into the specific goals and targets in the SWSLHD Strategic and Corporate Plans and the Departmental Business Plan.

Our team is committed to meeting future health needs of our patients by education, new and innovative treatment regimens and to incorporate research findings into our practice.

# The organisational structure of our department is as follows:

Professor Connie Katelaris (Head of the Department)

Professor Bradley Frankum

A/Professor Karuna Keat

Dr Monique Lee

Dr Timothy West

Dr Miriam Cordarini

Dr Paul Gray

Immunology Registrar

Pamela Burton CNC Grade 2

Fiona Perram CNS Grade 1

Elizabeth Bailey RN

Hollyanna Fuller Paediatric RN

Together as a team we organise such activities such as task allocation, coordination and supervision, which are directed towards the achievement of the departmental aims and goals.

#### Allergic diseases

If current trends continue, it is predicted there will be a 70% increase in the number of Australians with one or more allergic disorders; from 4.1 million currently to 7.7 million by 2050. With rising community prevalence and incidence, demand for Allergy Services is increasing. Hospital admissions for food anaphylaxis in Australia have doubled over the last 10 years and increased five-fold in children aged 0-4 years. This in conjunction with a rapidly increasing population size in the Campbelltown, Camden and Wollondilly Local Government Areas has led to a revision of Models of Care to incorporate home based treatment for patients with Immunodeficiency.

#### Services include:

### Skin testing

Offered where indicated for investigation of allergic disease and includes complicated diagnostic skin testing, with food and aeroallergens. as well as skin testing and intra-dermal testing with a range of drugs including antibiotics as well as general and local anaesthetics and bee and wasp venom

### **Food and Drug challenges**

Direct challenges such as oral food challenges and drug challenges are performed to determine if an adult or child is able to tolerate the suspected food or drug this can lead to the de-labeling of suspected allergies. Food and drug challenges are performed under supervision with experienced staff. Follow up care involves developing a treatment plan including specialist nurse education of anaphylaxis and administration of adrenaline auto-injectors if required.

All patients referred for possible supervised drug challenges are seen in the clinics for assessment prior to conducting a challenge.

## **Respiratory allergy**

For the diagnosis and management of allergic respiratory disease the following are available Subcutaneous and sublingual immunotherapy

Newer monoclonal antibody therapy for both eosinophilic and allergic asthma

#### Stinging insect allergy

Patients who have suffered a systemic reaction to a stinging insect sting should be reviewed in our clinic for diagnosis, action plan and prescription of an action plan and adrenaline auto injector.

Patients with Positive specific IgE or skin test results with bee or wasp venom will be offered Modified Rush immunotherapy.

## Urticaria and angioedema

We manage a large cohort of patients with chronic spontaneous urticaria as well as all form of angioedema including hereditary angioedema.

## Primary immunodeficiency and autoimmune disease

The Immunology department provides a comprehensive adult and pediatric service Investigating and managing immunodeficiency and diagnosis and management of patients with a broad range of systemic connective tissue and autoimmune conditions

We currently manage administration of subcutaneous immunoglobulin for home treatment

We have an expertise in Management of Hereditary Angioedema (HAE) and have one of the largest cohorts of
patients in NSW

#### Research projects and clinical trials

South West Sydney Local Health District has identified clinical trials as a priority area, as outlined in the SWSLHD research strategy 2012-2021, as a critical strategy to enhance health outcomes for residents in South West Sydney. This includes increased leadership of clinical trials developed in and envisioned to provide direct benefits for South West Sydney residents, increased portfolio of and access to clinical trials and improved quality and efficiency in clinical trial conduct".

Our Unit has a long history of conducting complicated multicentre, multi-national and international clinical drug trials and Investigator initiated studies practicing within a professional and ethical framework. The conduct of clinical trials requires specialised skills and GCP certification.

### **Specialised services**

### Aerobiolgy

Immunology and allergy unit at Campbelltown Hospital Provides daily aerobiological monitoring, in springtime including the operation of aeroallergen sampling equipment, aeroallergen identification of pollen and fungal spores with light microscopy Daily counts are distributed via a Auspollen app and website during the spring and summer months. This service is beneficial for patient with respiratory allergies to better manage symptoms and for GPs to educate patients on avoidance strategies.

## When a patient should be referred

- In cases of severe, life threatening allergy (anaphylaxis)
- If immunotherapy (desensitization) for treatment of allergic diseases is contemplated
- When food allergy is suspected or diagnosis and management of food allergy is required
- Suspected stinging insect allergy causing a systemic reaction
- Asthma where an allergic trigger is suspected
- For investigation of possible autoimmune conditions (vasculitis, unexplained fevers, weight loss)
- Investigation of frequent or unusual (opportunistic) infections where immune deficiency is suspected

## **Related links**

Australasian Society of Clinical Immunology and Allergy

Australasian Society of Clinical Immunology and Allergy has some useful fact sheets for patients

Australian and New Zealand Anaesthetic Allergy Group

Immune Deficiencies Foundation Australia

HAE Australasia

The Australasian Mastocytosis Society

Allergy & Anaphylaxis Australia