Role of allergens in the development of asthma

The role of allergens in the development of asthma is complex and not fully understood.

Measures to prevent asthma may be targeted at the prevention of allergic sensitisation (i.e. the development of atopy) or the prevention of asthma development in sensitised persons.

Tobacco exposure in utero and after birth is associated with a greater risk of developing wheezing illness in childhood. Pregnant women and parents of young children should be advised not to smoke. Other than preventing tobacco exposure both in utero and after birth, there are no proven and widely accepted interventions that can prevent the development of asthma (primary prevention).

Exclusive breast-feeding during the first months after birth is associated with lower asthma rates during childhood. Breast milk is associated with a lower incidence of wheezing illness in childhood compared to cow’s milk or soy protein.

Sensitisation and exposure to house-dust mite and Alternaria mold are important in the development of asthma in children. Exposure to cockroach allergen, a major allergen found in inner city dwellings, is an important cause of allergic sensitisation, a risk factor for the development of asthma.

Allergens and asthma symptoms and exacerbations

Immediate hypersensitivity to indoor allergens is known to be associated with allergic asthma. Amongst asthmatics, exposure to the allergens to which they are sensitive has been shown to increase asthma symptoms and precipitate asthma exacerbations. Reducing exposure to these allergens improves the control of asthma and reduces medication needs.

The important allergens are those that are inhaled. Food allergens are not a common precipitant of asthma symptoms.

Prevalence and distribution of allergens and sensitisation to allergens in Singapore

Local studies indicate that although public places are contaminated with common indoor allergens, the home constitutes a major reservoir of these allergens. As such, homes should be the target of allergen avoidance measures. Major cat and dog allergens were found to be well distributed and not confined to homes with pets. This passively transferred allergen may become airborne and cause symptoms.

Blomia tropicalis is the most prevalent species of house-dust mite in Singapore. Their densities were found to be highest in living room carpets and mattresses in the bedrooms.

There was no significant seasonal variation in dust-mite allergen levels in the homes over a 1-year period.

The sensitisation rates among patients with asthma and/or allergic rhinitis in Singapore (in the order of importance) were found to be as follows: Blomia tropicalis dust mite (96.2%), D. pteronyssinus dust mite (93.4%), D. farinae dust mite (92.3%), 3 other species of dust mites (78.2%, 71.6%, 71.3%), bird’s feathers (69.9%), 2 species of cockroach (59.5%, 56.4%), mosquito (46.4%), dog dander (34.3%), cat hair (29.1%) and 3 species of indoor fungi (20.8%, 18%, 9.3%).

The allergenic extracts of the local mite fauna should therefore be included in the diagnostic panel for the evaluation of allergic disorders in our local practice.

Evaluation

The clinician should evaluate the potential role of allergens, particularly indoor inhalant allergens. The patient’s medical history often helps in the identification of allergen exposures that may worsen his asthma. Sensitivity to seasonal allergens should be assessed from the patient’s history. Working asthmatics should be queried about the possible occupational exposures. The early identification of occupational sensitisers and the removal of sensitised patients from any further exposure are
important aspects in the management of occupational asthma. When occupational asthma is suspected, a referral to the specialist is indicated.

Skin testing or in vitro testing (specific IgE antibodies to allergen) is used to determine sensitivity to perennial indoor inhalant allergens to which the patient is exposed. A positive alone does not determine whether the specific IgE is responsible for the patient’s symptoms. Hence, patients should be tested only for sensitivity to the allergens to which they may be exposed. It is important to determine the clinical significance and relevance of positive tests in the context of the patient’s medical history.

Allergen avoidance in asthma
The asthmatic should be given advice to reduce exposure to the relevant indoor or outdoor allergens to which he is sensitive. Effective allergen avoidance requires a multifaceted, comprehensive approach. Single allergen avoidance steps are generally ineffective in reducing the allergen load sufficiently to lead to clinical improvement.

Clinical benefit usually required three to six months of sustained interventions in clinical studies. Patients should be encouraged to control exposures in their houses as part of a long-term management plan.

Avoidance measures for house-dust mite should focus mainly on the bedroom. Recommended measures to control house-dust mite allergen include the following: encase mattress and pillow in allergen-impermeable covers, wash pillow, bed sheets and blanket in hot water (55-60ºC). A temperature of >55ºC is necessary for killing house-dust mites.

The most effective measure to control animal dander allergens is to persuade patients not to keep animals in the home. Patients who are allergic to cat or dog allergens should be informed about the relevance of passively transferred allergen.

Amongst asthmatics, exposure to tobacco smoke is associated with increased symptoms, decreased lung function and greater use of health services. Asthmatics should be advised not to smoke or be exposed to environmental tobacco smoke.

Adults with asthma, nasal polyps and a history of sensitivity to aspirin or NSAIDs should be counselled regarding the risk of severe and fatal exacerbations from using these drugs.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Evidence of effect on allergen levels</th>
<th>Evidence of clinical benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encase bedding in impermeable covers</td>
<td>Some</td>
<td>None (adults)</td>
</tr>
<tr>
<td>Wash bedding in the hot cycle (55-60°C)</td>
<td>Some</td>
<td>None</td>
</tr>
<tr>
<td>Replace carpets with hard flooring</td>
<td>Some</td>
<td>None</td>
</tr>
<tr>
<td>Acaricides and/or tannic acid</td>
<td>Weak</td>
<td>None</td>
</tr>
<tr>
<td>Minimize objects that accumulate dust</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Vacuum cleaners with integral HEPA filter and double-thickness bags</td>
<td>Weak</td>
<td>None</td>
</tr>
<tr>
<td>Remove, hot wash, or freeze soft toys</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Remove cat/dog from the home</td>
<td>Weak</td>
<td>None</td>
</tr>
<tr>
<td>Keep pet from main living areas/bedrooms</td>
<td>Weak</td>
<td>None</td>
</tr>
<tr>
<td>HEPA filter air cleaners</td>
<td>Some</td>
<td>None</td>
</tr>
<tr>
<td>Wash pet</td>
<td>Weak</td>
<td>None</td>
</tr>
<tr>
<td>Replace carpets with hard flooring</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Vacuum cleaners with integral HEPA filter and double-thickness bags</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

*Adapted from Custovic A, Wijk RG. The effectiveness of measures to change the indoor environment in the treatment of allergic rhinitis and asthma: ARIA update (in collaboration with GA2LEN). Allergy 2005;60(9):1112-1115.

References:
End-stage coronary artery disease (CAD) is one of the leading causes of death in Singapore. Until recently, the only method of direct visualisation of the coronary arteries was with conventional catheter coronary angiography. Indeed, catheter angiography continues to remain the gold standard for the assessment of coronary artery stenosis. However, it is an invasive procedure and is associated with a small risk of complications. Up to two-thirds of catheter coronary angiography are performed for diagnostic purposes only. This has spurred the development of new non-invasive methods that can image the coronary arteries in patients who have equivocal signs and symptoms of coronary artery disease and in whom the risk of catheter angiography may not be justified.

Recent advancements in CT technology have enabled modern scanners to “freeze” the complex motion of the heart. It is now possible, in the span of a single breath-hold, to non-invasively obtain exquisite images of the heart and coronary arteries (Fig. 1-2). Thus, cardiac CT has the potential to revolutionize the prevention, diagnosis and treatment of CAD.

Cardiac CT comprises coronary CT angiography and coronary calcium scoring.

Coronary CT angiography (CCTA) is a useful diagnostic tool in the assessment of stable patients who have an intermediate pre-test probability of CAD and in whom an invasive procedure may not be ideal. The sensitivity and specificity of coronary CTA on a per-patient basis ranges from 90-95% and 83-86% respectively (Fig. 3). The greatest value of CCTA, however, is in its high negative predictive value. A patient with a normal study only has a 2-3% chance of having significant CAD. Moreover, CCTA is superior to all other non-invasive imaging modalities in the evaluation of structural coronary artery anomalies, such as an inter-arterial course of the right coronary artery (Fig. 4-5) and myocardial bridges, which have been known to be associated with sudden death in healthy individuals during exercise. CCTA has also been shown to be valuable in evaluating the position of existing coronary bypass grafts prior to cardiothoracic surgery and assessing in-stent stenosis.

The accuracy of CCTA in evaluating the degree of coronary arterial narrowing depends very much on the technical quality of the scan and the amount of calcified plaque present. Motion artifacts can occur in patients with very fast or irregular heart rates (such as atrial fibrillation) and these can simulate or even obscure stenosis. In such patients, optimal heart rate control needs to be achieved with the administration of oral or IV beta-blockers. The presence of extensive calcified coronary plaque also precludes accurate assessment, as these cause “blooming artifacts” that tend to exaggerate the degree of narrowing. Obese patients are also challenging to scan as the images obtained in such patients tend to be “noisy” due to photon starvation. Thus, careful patient selection and meticulous technique are crucial in obtaining high-quality images that allow the most accurate evaluation.

Although CCTA is considered to be a safe procedure, like all CT studies that require intravenous iodinated contrast, it is associated with a small risk of contrast reaction (usually mild skin reactions in about 3-6% of patients). Patients are also exposed to radiation in the order of 8-13mSv, which is approximately the same or slightly more than that of a conventional coronary angiogram. As such, CCTA is not advisable in pregnant patients, in children or young patients. Most modern CT scanners however, have software that can reduce the radiation dosage by as much as 50%.
Coronary calcium scoring (CCS) is a screening tool that quantifies calcified plaque burden (Fig. 6). Together with other established risk factors such as age, gender and cholesterol levels, CCS can further assist in risk stratification and goal-directed management. Patients with a calcium score of zero are unlikely to have significant coronary artery disease and are at low-risk of developing a significant coronary event in the next 5 years. Conversely, patients with high calcium scores of greater than 500, have a high likelihood (>90%) of at least one significant coronary stenosis. Early studies evaluating the utility of following calcium scores of patients on statin therapy over time as a means of tracking treatment response have also shown promising results.

Cardiac CT is an ever-evolving modality with new applications being developed in tandem with advances in CT technology. The development of the dual-source CT scanner with improved the temporal resolution has allowed high-quality images of the coronary arteries to be obtained in patients with high heart rates without the use of beta-blockers. CT scanners that have 256 detectors and can image the heart in a single rotation are close to being approved for clinical use. It is possible in the future, for cardiac CT to be a fast, non-invasive “one-stop shop” for obtaining both functional and anatomical information from the heart, by correlating areas of decreased myocardial perfusion with segments of coronary arterial stenosis.

The Department of Radiology at CGH has two state-of-the-art, 64-multidetector CT scanners capable of performing cardiac CT. Studies can be scheduled by calling the Radiology department at 6850 4848 or via fax at 6260 2417.

References
Non-invasive treatment for uterine fibroids

Dr Ong Chiou Li, Senior Consultant Radiologist
Department of Diagnostic Imaging, KK Women’s and Children’s Hospital.

Introduction
Magnetic Resonance Imaging-guided focused ultrasound ablation (MRgFUS) is a completely non-invasive method for the treatment of women with symptomatic uterine fibroids. KK Women’s and Children’s Hospital’s Department of Diagnostic Imaging is currently the only facility in SE Asia that provides this treatment.

What it is
Whilst the ultrasound energy used in imaging is dispersed over a wide area, it is concentrated into a small target during focused ultrasound ablation to produce a precise volume of coagulative necrosis.

Unlike conventional surgery, the fibroids are not removed during the process, but are left in the body to undergo gradual involution.

Studies of uterine artery embolisation suggest that volume reduction is not essential for symptom resolution, and that the coagulation of angiogenic growth factors stored in myomas is an alternate explanation for symptomatic reduction of menorrhagia.

The ultrasound device is coupled to a compatible Magnetic Resonance Imaging (MRI) scanner, allowing real-time monitoring of uterine position and temperature changes throughout the treatment. There is good correlation between thermal dose estimates and ablation of tissues. The treatment is performed on an FDA approved system (ExAblate 2000 Insightec, Haifa Israel) that is integrated to a 1.5Tesla MRI unit (GE Medical Systems, Milwaukee). It is currently the only system available for clinical use.

Patient selection
Not all patients are suitable for this procedure. Patients with pacemakers, some surgical implants, or other MR-incompatible devices cannot undergo the procedure. The procedure is also contraindicated in those with extensive abdominal scars. It is offered to pre-menopausal women who have completed their families, and who have fibroids that range between 3cm to 10cm in diameter. The location and number of fibroids present may also affect the success rate of the procedure. The patients are assessed and counselled by a gynaecologist and radiologist at the hospital’s specialist clinic. Selected patients undergo an MRI scan to determine if their fibroids can be treated. In general, only about 30% of women are suitable for treatment after the MRI assessment.

How it is done
The patient is asked to fast overnight. On the day of the procedure, a urinary catheter is inserted. The patient lies prone on the table where the ultrasound transducer is located (figures 1a & b). A water bath and gel pad provides the coupling medium for the ultrasound to be transmitted from the transducer to the patient’s body.

Intravenous sedation and analgesia are administered during the treatment that is carried out in the MRI suite. Immediately before treatment, pelvic MR images were obtained to enable the radiologist to mark out the sensitive structures such as bowel and the lumbosacral nerves, and the area of treatment (figure 2). Prior to each sonication, the path of the ultrasound beam (figure 3) is displayed, and further adjustments may be made to steer it away from the sensitive structures, when necessary. During each sonication, which lasts about 20 seconds, active feedback on temperature rise in
the targeted areas are shown on line diagrams (figure 4). Adequate treatment is based on the demonstration of a non-enhancing volume of at least 30% of the fibroid on the post-treatment study (figures 5 & 6). Non-enhancement in the fibroid basically indicates non-perfusion.

The patient is given a switch that she could use to turn off the sonication when she feels excessive heating or unusual sensations in her lower limbs or lower back. Most patients feel some amount of heating on their lower abdomen during the sonication. The temperature at the skin can go up to about 40 degrees Centigrade. Within the fibroid, temperatures go up to between 65 to 85 degrees Centigrade. In between sonications, there is a cooling time of between 70 to 90 seconds. The treatment usually takes between 2 to 4 hours. With the time taken for preparation and recovery, it is necessary for the patient to spend at least 6 hours, or more, in the hospital. The patient is discharged on the same day. Most patients are able to resume normal activities after one or two days.

Complications
Complications from MRgFUS are uncommon and mostly minor. The most common complication is burns on the anterior abdominal wall. Surgical scars on the abdomen carry a higher risk of burns as patients often have diminished sensation around the scars. The more serious complications include bowel perforation and nerve injury. Bowel perforation can occur from accidental sonication of bowel that goes between the abdominal wall and the uterus. Nerve injury occurs when the bone at the back of the uterus is overheated. The most serious effect was sciatic nerve palsy in a patient who eventually recovered after a year. In our experience with 22 patients treated at KK Women’s and Children’s Hospital (KK), none of the patients suffered burns. The most significant complication was in a patient who complained of some pain in the foot that lasted about 3 months, and was attributed to neuropraxia. She was able to continue her normal activities, including exercising. She has since recovered.

Other minor problems encountered were low-grade fever for a day, mild abdominal cramps, vaginal discharge and dysuria.

Outcome and conclusion
Preliminary results from a study conducted in KK to evaluate the efficacy of the treatment showed that 7 out of 10 of those with significant symptoms had greater improvement at 6 months follow-up. Some showed improvement at the first menstrual period after the treatment. This is similar to that reported in the literature, where 70-90% of patients showed improvement in their symptoms. Our experience with the procedure has shown that it is considerably safer than other treatment options available, and that the patients recover faster.

Elsewhere, outside of Singapore, treatment applications using MR-guided focused ultrasound continue to grow, with treatments on breast cancer, bone metastases, liver tumours, and currently still under research, brain tumours.

References
Working with GPs and Eldercare Agencies to improve mental health of the elderly

Mental health problems in the elderly such as depression and dementia cause significant disability. The National Mental Health Survey showed that the prevalence of dementia in those aged above 60 to be 5.2% while the prevalence of depression was 3.1% (Chiam et al, 2004).

CPGP Project Director, Dr Ng Li Ling, Senior Consultant of Psychological Medicine, CGH said, “Unfortunately, these disorders are often unidentified and when left untreated will adversely affect the quality of life of older persons and their families.”

The CPGP aims to address some of these issues through three approaches. First, CGH will build community capabilities by training GPs and staff in eldercare agencies such as the Senior Activity Centres and Day Care Centres to recognise and manage mental problems in the elderly.

Second, a community network linking the eldercare agencies, GPs and hospitals will be built so that the appropriate referral, assessment and management can be made.

Third, to reach out to mentally ill elderly patients who are unable or unwilling to see a doctor at the hospital, the CPGP team will visit them at home.

The CGH team running CPGP is multi-disciplinary and consists of geriatric psychiatrists, geriatric and psychiatric nurses, clinical psychologist, medical social workers, occupational therapist and physiotherapist.

The pilot phase of this programme by CGH will cover the areas administered by the Northeast and Southeast CDC. Progressively, the CPGP will be extended to the entire country. A team at IMH will set up a programme for the central region of Singapore by 2008 and a team at Alexandra Hospital will set up a programme for the west by 2009.

General Practitioners who are interested in this programme can contact the CPGP office at Tel : 68501841/40 or cpgp@cgh.com.sg. Referal forms can be found at http://www.cgh.com.sg/medical/files/CPGP%20REFERRAL%20FORM%20-%20Pilot.pdf
Children’s Cancer Centre Opens as One of the Largest in SE Asia

KK Women’s and Children’s Hospital (KKH) opened one of Southeast Asia’s largest paediatric cancer centres to meet increasing demands and to provide holistic care to children with cancer. The centre was officially opened by Mr Khaw Boon Wan, Minister for Health, on 21 September.

Sponsored by the Children’s Cancer Foundation, the new centre comes with four Bone Marrow Transplant rooms, catering for up to 36 patients per year. The expanded Day Therapy Centre (CDT), which allows patients to receive chemotherapy and blood products in an outpatient setting, can also handle 40 percent more procedures than before. A larger CDT also means that fewer patients need to be warded, thus reducing cost for them.

The centre is designed to cater to the children and their parents’ comfort, with plasma TVs, a playroom, computers, and a well-equipped pantry. Each Bone Marrow Transplant room can also be personalised to resemble the child’s room at home.

To ensure that patients receive all-rounded specialised care, patients are supported by a multidisciplinary team of paediatric oncologists,
surgeons and nurses. The child's psychosocial needs are also seen to. Since 1997, the Children's Cancer Foundation has provided much-needed psychosocial support through counselling, therapeutic play, a Parent's Support programme and a Bereavement programme, all provided at no cost to the patients. In addition, the hospital's medical social workers provide financial counselling and source for funds to help families cope with the costs of treatment.

Since 1998, KKH has conducted 65 Haematopoietic Stem Cell Transplants with a 70% success rate, one that is comparable to international standards. In 2002, KKH conducted the first cord blood transplant with success that underpins today’s demand for the procedure. In the near future, KKH expects to see an increase in the number of patients with demand coming from an increase in cord blood transplants. Plans to develop an adolescent cancer programme are in the works as studies have shown that adolescents fare better in a paediatric environment than in an adult ward.

Achievements:
- 80% cure rate for common cancers such as leukemia, lymphoma, germ cell tumour and kidney tumour
- 70% success rate of HSCT, comparable to world best centres
- Recognised as a participating centre for EUROCORD in April 2006
- Multidisciplinary concept in childhood cancer management i.e. patients are treated by a team comprising paediatric oncologists, paediatric neurosurgeon, paediatric oncology surgeon, together with trained paediatric nurses and counsellors. The Children’s Cancer Foundation has been a partner since the centre started offering psycho-social support.
- Workload in day therapy centre has doubled within the last 5 years from over 2,000 treatments per year to 4,800.

Range of Services:
- General paediatric haematology and oncology
- Haemophilia clinic
- Thalassaemia clinic
- Combined therapy clinic (solid tumour)
- Neuro-oncology clinic
- Cancer cytogenetics
- Late effects clinic
- Haematopoietic stem cell transplantation (allogenic and autologous)
- National children’s cancer registry
- Blood Stem Cell Transplantation
DOT Eldercare Skills Programme
for Family Physicians

About DOT
SingHealth’s Delivery on Target, or DOT, was launched on 20 August 2005 to start a network linking public, private and community health providers to deliver a more integrated and community-based chronic care. Focusing on treating diabetes, hypertension, and/or hyperlipidaemia to recommended clinical targets, it links industry and community disease management support to the private General Practitioners (GPs) and their patients.

Why DOT Eldercare Skills Programme?
The pace of ageing in Singapore is one of the fastest in the world. SingHealth aims to make the ageing process a positive experience – one of a longer life enhanced by opportunities for improved health, participation and security (WHO 2002).

As such, one of our initiatives is to form strategic alliances with healthcare providers in the community as the bulk of aged care can and should occur outside the institutions. For this to take place, our community partners need to be empowered with the necessary knowledge, skills and resources to provide quality aged care in the community. This forms the basis for us to conduct the DOT Eldercare Skills Programme.

The demand for primary prevention, screening and health maintenance is expected to increase, as our future seniors are likely to be healthier and more educated. As GPs are in close proximity to seniors because they operate within the community, they are best positioned to provide a holistic approach to primary prevention, health maintenance and screening of diseases. The role of GPs as the main providers of family medicine and care for the senior is expected to enlarge over time and their ability to care for a wide range of medical problems within the community would correspondingly need to increase.

About DOT Eldercare Skills Programme
The DOT Eldercare Skills Programme aims to increase the awareness of primary care providers to the various types of healthcare and social services, as well as financial support, that are available for the elderly and their carers.

Conducted over 4 distinct workshops, the sessions aim to achieve the following learning objectives for the GPs:

- Perform a basic assessment for a frail older person to identify his/her needs
- Recognise common complications associated with physical
and mental disability and institute-appropriate preventive and therapeutic measures

- Have basic skills in managing older persons with impaired feeding, continence, mobility and skin integrity
- Know the services available for older persons with care needs

Facilitated by a team of experts, the scope of discussion includes

### Continuing Care
- Home assessments
- Improving Patient’s Quality of Life
- An Age-Friendly Practice
- Case Presentation and Discussion

### Managing Communication Challenges
- Visual deficits
- Hearing impairment
- Speech problems

### Medication Management
- Polypharmacy
- Patient compliance

### Post-Discharge Care
- Post-Discharge Assessment
- Managing Common Post-discharge Problems
- Understanding and Coordinating Support Services for Patients and Caregivers
- Case Presentation and Discussion

### Wound Care Management
- Promoting wound healing
- Preventing pressure sores
- Wound care products

### Nutrition Management
- Nutrition needs assessment
- Swallowing assessment
- Managing dysphagia
- Tube feeding

### Rehabilitative Care
- What is Rehabilitation?
- Common Problems with Rehabilitation
- Sourcing for Rehabilitation for My Patients
- Case Presentation and Discussion

### Mobility Management
- Mobilising and transferring safely
- Common mobility aids and appliances

### Incontinence Management
- Understanding incontinence
- Incontinence aids
- Managing urinary catheters
- Managing constipation

### End of Life Care
- Understanding Palliative Care
- Advanced Care Planning
- Case Presentation and Discussion

### Respiratory Management
- Managing pneumonia
- Tracheostomy
- Respiratory aids

### Managing End of Life
- Symptom management
- Ethics
- Certifying death

The next step would be to continue to build on this awareness through introduction to key community players, develop a decision support infrastructure for formal and informal care providers and establishing an ecosystem for aged care to take place in the community.

### Contact Information

If you would like to register for the next DOT Eldercare Skills Programme, please email your particulars (Name, MCR Number, Clinic Name and Contact Number) to:

Miss Pang Huey Ling
Health Management Programme Manager
Quality Management, SingHealth Corporate Office
Email: pang.huey.ling@singhealth.com.sg

A hands-on experience on transfer techniques for one GP participant
Allergy Clinic at SGH

Allergy sufferers can now seek relief at the SGH Allergy Clinic. The clinic offers comprehensive and co-ordinated clinical care to patients with allergic disorders and asthma.

At the Allergy Clinic, patients can have their allergic or suspected allergy-related disorders, evaluated, managed and treated in one convenient location, as the Centre harnesses the expertise of the Departments of Rheumatology & Immunology, Respiratory & Critical Care Medicine, Otolaryngology (Ear, Nose & Throat) and Dermatology Unit as well as support from the SGH Dietetics and Nutrition Services and SGH Pharmacy into a one-stop centre.

Besides the management of allergic disorders, the clinic also offers specific investigation services for allergic disorders and asthma as well as desensitisation and immunotherapy treatment options.

As part of the comprehensive services offered, the clinic also provides education and counselling services for patients with allergic disorders and asthma.

For appointments, please contact:
Tel: 6321 4377  Fax: 6224 3655
Mon – Fri: 8am to 9pm  Sat: 8am to 2pm

The SGH Allergy Clinic provides management for the following allergic disorders:

- Skin allergies  •  urticaria (hives)  •  urticaria-angioedema  •  eczema  •  dermatitis  •  asthma  •  exercise-induced asthma
- Hypersensitivity pneumonitis  •  rhinitis  •  rhinosinusitis  •  upper airway allergy  •  anaphylaxis  •  drug allergy  •  food allergy  •  angioedema  •  insect sting allergy  •  venom allergy

Specific investigations offered at the Allergy Clinic include:

- Skin prick test  •  intradermal test  •  patch test  •  blood IgE test  •  food challenge  •  drug challenge  •  spirometry  •  inhalational challenge  •  exercise test for exercise-induced asthma  •  nasoendoscopy
The 9th Singapore Stroke Conference organised by the National Neuroscience Institute (NNI) was held from 31 August to 2 September 2007. The 3-day conference gathered an audience of 450 that included family physicians, specialists, nurses, dietitians, social workers, therapists representing the various hospitals and professional organisations such as the Singapore National Stroke Association.

“To review the available scientific evidence to support best clinical practice, we have organised this year’s conference to be aligned with the Ministry of Health’s revision of Stroke Clinical Practical Guidelines, with highlights on Neurosonology, Acute Interventions, Secondary Prevention, Dementia, Depression and Sexuality.”

- Dr N V Ramani, the Organising Chairman and Senior Consultant Neurologist, NNI on the objective of the conference.

The conference had a faculty of both foreign and local experts sharing updates and covered many aspects of the acute interventions and secondary prevention of stroke, and its under-recognised complications and effects on mood, cognition and sexuality.

It is clear that stroke is a major healthcare issue, being one of the major causes of death and disability in Singapore and in many other parts of the world. With the ageing population, the number of people developing a stroke is set to rise. Fortunately, there are a number of effective interventions which have been proven to reduce the risk of the first stroke, as well as subsequent strokes.

This message was echoed by our Guest-of-Honour, Professor K Satkunanantham, Director of Medical Services, Ministry of Health during his opening speech. He added that “There is much more we can do to manage stroke expeditiously to improve outcome. We can also reduce complications, delay a second vascular event, and improve quality of life and independence. The brain, while to some extent still plastic, is almost never the same after a stroke. With this understanding, we should also invest in preventive measures while we continue to develop capabilities for the treatment of stroke. This, if combined with lifestyle changes including weight reduction, regular exercise and a healthy lifestyle would reduce the risk of stroke significantly.”

NNI was honoured to also host the Annual Meeting of the Asian Chapter of the World Federation of Neurology’s Neurosonology Research Group, held simultaneously with the Conference.
The National Heart Centre Singapore held its 2nd Cardiology Update on 6 and 7 October 2007. It is part of a continuing series of yearly updates in the field of cardiology inaugurated last year. The rationale of the update is to help our doctors keep pace with the rapid rate of new knowledge generated in cardiology subspecialties; not only fellows preparing for their exit examination, but also senior cardiologists wanting to know the latest developments in areas of cardiology outside their field of sub-specialisation. The challenge was to achieve this broad overview of new knowledge in a concise yet comprehensive set of lectures. Each lecturer was given the task of summarising the results of recent landmark studies and discoveries in their subspecialty with a presentation focused on the general cardiologist, internist and cardiology fellow.

Included in this 2 day event was a series of core lectures covering a broad spectrum of cardiac conditions. An impressive faculty of speakers provided the latest information in cardiology as well as participated as forum panelists in the lively discussions that followed each of the session symposiums.

The topics were well received by the participants and speakers alike who felt that it managed to crystallize some of the key topics in cardiology today.

One of the highlights of this update was a session devoted to special case presentations in the various subspecialties of cardiology that were particularly useful for cardiology fellows in training and those who needed a refresher course in cardiology.

Beside the impressive list of prominent cardiologists in our faculty, we also had the privilege of listening to distinguished non cardiologists like endocrinologists and cardiac surgeons who were there to add an all round coverage to this update.

Judging by the turnout of attendees who included fellows, cardiologists, other physicians and interns as well as foreign delegates, the 2nd Cardiology update proved to be a success in achieving its primary goal of being a platform to share and discuss some of the current developments as well newer guidelines in the management of cardiological conditions.
## Singapore General Hospital Surgical Updates for GPs 2008

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<td>General Surgery</td>
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<tr>
<td>28 Jun 08</td>
<td>Updates in O&amp;G for GPs</td>
<td>Obstetrics &amp; Gynaecology</td>
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<tr>
<td>26 Jul 08</td>
<td>Common Conditions of the Hand</td>
<td>Hand Surgery</td>
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<td>16 Aug 08</td>
<td>Cardiothoracic Surgery Update for GPs</td>
<td>Cardiothoracic Surgery</td>
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<tr>
<td>23 Aug 08</td>
<td>ENT GP Symposium</td>
<td>Otolaryngology</td>
</tr>
<tr>
<td>20 Sep 08</td>
<td>Management of Anorectal Disorders</td>
<td>Colorectal Surgery</td>
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<tr>
<td>04 Oct 08</td>
<td>Updates in Plastic and Reconstructive Surgery</td>
<td>Plastic, Reconstructive &amp; Aesthetic Surgery</td>
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<tr>
<td>01 Nov 08</td>
<td>Anaesthesia, Peri-operative Care and Pain: The Role of the GP</td>
<td>Anaesthesia &amp; Surgical Intensive Care</td>
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* Details will be available closer to the event date. Please visit our website at [www.pgmi.com.sg](http://www.pgmi.com.sg) or look out for our regular GP CME flyer.
CONTINUING MEDICAL EDUCATION

GPs Go Online:
Patients find GPs from SingHealth website

Anyone looking for a GP in the SingHealth GPEP programme can now find one readily on the SingHealth website. Segmented by sectors to facilitate easy search, a patient looking for a GP can now find a listing of GPs according to sectors i.e. north, east etc., of preference.

The list is then broken down further into specific areas such as Thomson, Ang Mo Kio. Clinics are listed with addresses and contact details.

For a look, go to the For Patients & Visitors section of the SingHealth website
www.singhealth.com.sg