



Singapore General Hospital is the largest acute tertiary hospital and national referral centre in Singapore. With 1,518 acute beds and a pool of 599 specialists, the hospital treats about 74,000 inpatients and 640,000 outpatients yearly. Through its 29 specialties, SGH is also a centre of medical education and research for innovative treatments, capitalising on its multi-disciplinary capabilities and research affiliations to augment care delivery to patients.

KEY HIGHLIGHTS

SGH – A Hospital of the Future

A five-suite facility, the Khoo Teck Puat–NNI Integrated Neuroscience Centre has made Singapore General Hospital (SGH) the first hospital with a comprehensive and integrated range of sophisticated technologies in healthcare. The Centre sets a new benchmark for complete cancer care as well as neurosurgery, otolaryngology and orthopaedic surgery. With real-time high quality intra-operative Magnetic Resonance Imaging (iMRI), Computed (iCT) scanning, and advanced image-guidance navigation system capabilities, surgeons are able to intra-operatively monitor progress and perform more complicated surgeries in less time, leading to improved patient outcomes.

Largest number of Keyhole Prostatectomies in Asia

SGH's Department of Urology has performed over 200 keyhole prostatectomies in Asia. The Robot-assisted Laproscopic Radical Prostatectomy (LRP) using the Da Vinci Surgical System to treat early stage prostate cancer was introduced for the first time, in this region, in 2003. The robotic system enables surgeons to operate with greater precision as compared to conventional keyhole surgery.

Six Successful Liver Transplants in First Year

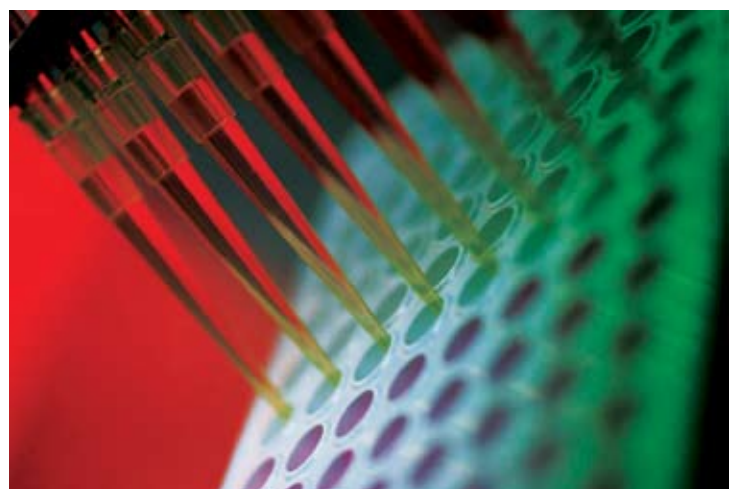
2006 marked the inaugural year of the Liver Transplant Programme at SGH, during which the team carried out six liver transplants, with one involving a living donor. All liver transplant patients have since enjoyed normal liver function and some have resumed their regular routine. In addition, the Hospital performed 70 kidney transplants, 21 of which involved living donors. Six heart transplants and one lung transplant was also performed in collaboration with the National Heart Centre Singapore.

Commemorating 185 Years of Medical Excellence

The Hospital marked its 185th anniversary which was based on the theme "A New Era of Medical Excellence" with a series of activities and outreach programmes for patients, staff and the underprivileged. SGH is the oldest tertiary hospital in Singapore.

On the Cover:

Mr See Yew Kong donated his liver to wife, Sheryl. Seen here sharing a moment with son and their doctors, Tan Chee Kiat and Prema Raj.



Delivering patient-centric care

Singapore General Hospital (SGH) celebrated 185 years of being a leading healthcare provider of Singaporeans last year. We pulled in a stronger performance in FY 2006 from the year before. We served over 640,000 outpatients, an almost 2% increase over FY 2005 while inpatient discharges rose by 3% to 74,000. The majority of our outpatients (67%) and inpatients (76%) were subsidised. Total Emergency Medicine visits went up by almost 6% to 129,000. Notwithstanding the higher patient throughput and limited resources, patient satisfaction remained high.

Winning the Reader's Digest Trusted Brand Gold Award for the inaugural hospital category was a resounding public affirmation from those we have served and is encouragement for us to continue our pursuit of excellence. The SingHealth Alice Lee Institute of Advanced Nursing, which has its roots at SGH became the first in Asia and third outside the USA to be accredited by the American Nurses Credentialing Centre.

All these were accomplished despite the challenges presented by the multiple upgrading infrastructure projects in progress, to expand and re-organise our patient care capacity.

We look forward to yet another good year for SGH.

Prof Tan Ser Kiat *CEO, Singapore General Hospital*



SERVICE

Providing Holistic Therapy

For the first time in Southeast Asia, music therapy is now available at the Singapore General Hospital's Centre for Hearing and Ear Implants. Spearheaded by a qualified music therapist, this programme is part of the holistic management of hearing-impaired children and adults. It also provides an intervention approach to complement its Auditory-Verbal therapy for children fitted with hearing devices. This new service is based on studies which show that adding music to the rehabilitation process increases the uptake of new concepts and improves the child's motivation to learn. The programme uses music and music activities to address physical, psychological, cognitive and social needs. Sixteen youths are enrolled in the programme.

Since the establishment of the Hospital's first Surgical Physiotherapist Department in 1947, SGH has come a long way in the provision of physiotherapy services. Today, it has the largest and most comprehensive setup in Singapore with 80 physiotherapists and therapy assistants, many of whom have specialist training. The Department remains the only one in Southeast Asia to offer comprehensive burns and wound care as well as lymphoma therapy for oncology and vascular patients.

Right Siting Care

In May 2006, SGH launched the new Family Medicine & Continuing Care Department. No other hospital in Singapore has established such a department with the explicit objective of forging stronger links with care providers in the community, and achieving higher standards of medical care. The SGH Family Doctor Network was introduced to benefit patients as they do not have to repeat laboratory tests already conducted by

another doctor. This results in more effective use of community resources and improved care of patients, especially those with multiple medical conditions. The Hospital also saw the smooth implementation of the national Medisave for chronic diseases programme.

Better Clinical Outcomes with Leading Edge Technology

SGH constantly harnesses technology to improve treatment methods and clinical care. SGH became the first Hospital outside the US to have a new imaging system for Orthopaedics known as the O-Arm Imaging System. The equipment enables real-time 3D images as well as multi-plane, 2D and fluoroscopic imaging, coupled with computer navigation. This is a quantum leap in minimally invasive surgery as patients undergoing spinal procedure will experience better and faster recovery.

The traditional analogue film-screen mammography system has been replaced with a digital breast imaging technology – the first of its kind in Southeast Asia. The system produces almost instantaneous high quality digital mammograms, with computer-aided detection. Procedure time is significantly shortened and patient comfort enhanced, especially for patients with radiographically dense breasts, pre- and peri-menopausal women. Accuracy is also improved.

Reshaping and Renewing Facilities

The best locations at the Hospital must be dedicated for patient care. This management foresight led to the relocation of staff to SGH's Bowyer Block and Connection One at Bukit Merah, resulting in close to 3,000 square metres of premium space being freed up. This space allows convenience of patient access and for the points of care delivery to be kept as close as possible. Clinic services are being planned for the vacated space.



Left – Dr Ooi Choon Jin, Senior Consultant, Department of Gastroenterology and Hepatology together with physiotherapists Adon Chan (left) and Brenda Ong.

Above – Helping Hands @ York Hill.

Extending Helping Hands

As part of ongoing corporate social responsibility efforts, SGH held its first Community Day in November. Entitled “Helping Hands@York Hill”, the event saw more than 250 staff extending their support to over 200 needy residents in the neighbourhood by conducting health checks and fall assessments, and providing entertainment and recreation.

Arts for Health

The Hospital’s Arts for Health programme, with the support of Shaw Foundation and SingHealth Foundation, continues to gain momentum with expanded scope and activities including lunchtime busking and music performances for outpatients waiting for consultation. In recognition of the Hospital’s Arts for Health programme, SGH became the first hospital to receive the Arts Supporter Award from the National Arts Council.

Public Affirmation

SGH received a strong vote of confidence when it became the first and only hospital nominated under the Reader’s Digest Most Trusted Brand Award 2007 (Hospital Category). Survey respondents were asked to rate the hospitals on six attributes – trustworthiness, credible image, quality, value, understanding customer needs and innovation. SGH garnered the most votes and bagged the inaugural gold award.

EDUCATION

Knowledge Sharing Across Countries

Education knows no boundaries. SGH is committed to extending its medical knowledge and expertise even outside Singapore. During the year, Brunei’s Ministry of Health engaged SGH to participate in redevelopment plans for the Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital and the building of a National Isolation Centre in Brunei. SGH embarked on a feasibility study into current and future healthcare demands, as well as operational concepts and the roles of the two institutions.

A Hospital Management Study Programme was established during the year in response to requests from hospitals in China who wish to learn from SGH. The programme is targeted at senior clinicians and healthcare professionals and customised to institutions. Two programmes were organised in 2006 – one for Liaocheng People’s Hospital and the second for Shanghai Pudong Gongli Hospital.

Melbourne has become SGH’s latest partner in medical collaboration. The SGH Medical Social Services team initiated the Melbourne-Singapore Health Social Workers Network to facilitate exchange and study visits between hospital social workers from the two cities. During the year, two SGH medical social workers were selected for the exchange programme, funded by the SingHealth Talent Development Fund.

Advancing Medical Techniques

A mentorship programme was established by the Department of Urology to invite leading urologists in selected sub-specialty fields to share their latest techniques. Two experts visited the department during the year, namely Dr Haxhimolla Hodo, from the Department of Urology at The Canberra Hospital and A/Prof Stolzenburg Jens-Uwe, Laparoscopic Prostatectomy Procedure, from Leipzig, Germany.

A breakthrough collaborative effort between the five teaching hospitals in Singapore, including SGH, resulted in the Advanced Specialist Training programme in Endocrinology. The programme capitalises on the strengths of each hospital through monthly sessions held throughout the year.

Under an agreement between Johnson & Johnson and SGH, about 230 colorectal surgeons will receive observership training each year, over three years, in Laparoscopy Colorectal Surgery, the "Eu Technique" of Staple Haemorrhoidectomy and the latest colorectal surgery techniques at the annual Colorectal Congress.

Since its inception in 2003, the Postgraduate Allied Health Institute (PGAHI) has offered close to 1,600 training places in its continued endeavour to become an international centre of excellence for advanced and clinical skills training in allied health. In March 2007, PGAHI signed a collaborative agreement with Flinders University to jointly offer Flinders postgraduate programmes in clinical rehabilitation in Singapore. These programmes are multi-disciplinary in nature, and are aimed at equipping allied health professionals with more advanced knowledge and skills, and preparing them for senior clinical roles.

Earning International Accreditation

The SingHealth Alice Lee Institute of Advanced Nursing, an institute that provides a comprehensive range of nursing specialisation programmes and practice-based training in Singapore, and which has its origins in SGH, became the first in Asia and only the third outside of the US to receive international accreditation by the American Nurses Credentialing Centre (ANCC) as a continuing nursing education provider.

RESEARCH

New Heights in Clinical Research

Clinical trials help hospitals translate research into better patient care. During the year, 183 new and ongoing drug and medical trials were conducted, about half of which were initiated and sponsored by the industry. The nurses completed 14 research projects, attracting over S\$80,000 in research grants from the MOH Nursing Research Committee. A total of 31 research grants worth S\$8.45 million was secured. Research output was prolific, with 32 out of 244 papers published in journals with an impact factor exceeding 5.

Translating Research into Clinical Benefits

The Department of Urology developed a prototype of a new and automated prostate biopsy model called BioXbot, which manipulates a transrectal ultrasound (TRUS) probe to collect a series of 2D images of the prostate. The images are then used to create a 3D computer model of the organ. The BioXbot acts as a smart "positioner" for needle insertion, significantly improving the accuracy, consistency, cancer detection rate and patient safety of prostate biopsies.

SGH has successfully completed a pilot study on proton MR spectroscopy (MRS) on 10 patients. The study aimed to increase accuracy in quantifying liver fat and staging any co-existing chronic hepatitis or liver fibrosis. The assessment will be further carried out on a larger population in the near future.

Novel animal models have been developed by SGH for research. These include diabetic large animal models, intraportal orthotopic liver tumour models in rodents, myopic animal models and animal models with bony tissue defects for orthopaedic and dental research. SGH is currently collaborating with INSERM, France to develop chronic Hepatitis B models in primates.

Employer of Choice

As an employer, the Hospital was recognised for its efforts in making SGH a great work place with the Work-life Excellence Award, Sporting Singapore Inspiration Award (Gold) and the Singapore Health Award (Gold).

	FY 06	FY 05
SIZE		
Bed Complement (as at end March)	1,518	1,516
Beds in Service	1,463	1,449
WORKLOAD PER ANNUM		
Bed Occupancy Rate	82.2%	81.3%
Inpatient Admissions	74,064	71,951
Inpatient Discharges	74,293	72,219
Total Patient Days	438,890	429,989
Average Length of Stay (days)	5.9	6.0
Total Surgical Operations	76,875	74,891
Day Surgeries	41,642	41,143
Inpatient Surgeries	35,233	33,748
Specialist Outpatient Clinic Attendances	640,386	629,423
Accident & Emergency Attendances	128,539	121,610
STAFFING (AS AT END MARCH)		
Total	5,494	5,249
Doctors	620	618
Nurses	2,239	2,045
Health Sciences Professionals	790	738
Others	1,845	1,849

AWARD	RECIPIENT(S)
Ministry of Home Affairs Award for Employer of NSMen	SGH
National IQC In-house Convention Awards – 3 Star, 8 Gold and 7 Silver Awards	SGH
Readers' Digest Trusted Brand – Gold	SGH
Singapore HEALTH Award 2006 – Gold	SGH
Singapore HR Awards 2006 (Leading HR Practices)	SGH
Sporting Singapore Inspiration Award – Gold	SGH
Total Defence Award	SGH
Work-Life Excellence Award 2006	SGH
Annual Congress of European Association of Urology, Berlin – Best poster	Dr Henry Ho, Dr Lim Kok Bin, Prof Foo Keong Tatt
Clinician-Scientist Investigator Award 2006	Dr Charles Chuah, Haematology Department
Excellent Service Awards 2006	644 SGH staff – 38 Star, 229 Gold & 377 Silver
Healthcare Humanity Awards 2006	Kaldip Kaur D/O Dara Singh, Assistant Director of Nursing; Sarawasthi D/O of Nagalingam, Senior Nurse Clinician; Lim Fong Chee, Senior Nurse Manager; Crystal Lim Ah Yan, Principal Medical Social Worker; Anita Foo Shu Hui, Principal Medical Social Worker; Ho Hwee Kim, Senior Nurse Manager; Choo Bin Moey, Senior Nurse Manager; Tan Leh Hong, Nurse Clinician; Meskiah Bte Samsudin, Senior Staff Nurse, Operating Theatre; Dawn Tan May Leng, Senior Physiotherapist
Inaugural Minister of Health Award (research work done in the Fusarium Keratitis outbreak)	Dr Charles Tang and Dr Tan Ai Ling
MOH Nurses' Merit Awards 2006	Gormit Kaur, Chey Boon Tiang, Lau Seok Bian, Elena bte Mohamed Ayob, Zanib bte Mohamed Nasir, Jaynthi d/o Karappiah, Kamsiah bte Jaffar, Salimah bte Mohd Ayob
Nagasaki Award	Dr Daphne Khoo, Department of Endocrinology
National Day Awards 2006 (Commendation Medal)	Dr Png Hong Hock, Deputy Director of Nursing Dr Tan La Choo Celia, Assistant Director, Allied Health
National Day Awards 2006 (Efficiency Medal)	Gan Siew Gek Christine, Senior Nurse Manager; Koh Sim Moy, Senior Nurse Manager; Teo Foong Yee Mary Josephine, Department of Emergency Medicine; Sim Kiak Kong, Nurse Clinician; See Keow Ann, Senior Nurse Manager
National Day Awards 2006 (Public Service Medal)	Prof Tan Ser Kiat, CEO SGH, Prof Ho Lai Yun, Senior Consultant, Neonatal and Developmental Medicine, Associate Dean, Chiang Juat Lan, Deputy Director, Nursing
President's Award for Nurses 2006	Tan Siok Bee, Senior Nurse Clinician
Singapore Labour Foundation Model Worker Award 2006	Prof Lee Seng Teik
SingHealth-Lee Foundation Nursing Excellence Award 2006	Mina Nagapan, Senior Staff Nurse; Santhi d/o Baloo, Senior Enrolled Nurse; Goh Seok Tin Irene, Nurse Clinician; Shiremeni A/P Balasingam, Senior Staff Nurse
Tan Chin Tuan Nursing Awards 2006	Winnie Ong, Senior Enrolled Nurse