

Tan Tock Seng Hospital: Some Recollections from 1942 to 1997[†]

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When I was asked to deliver this inaugural Tan Tock Seng Hospital (TTSH) Oration, I was deeply moved and truly appreciative of the honour this ancient institution has done to me. However, it was with much hesitation that I accepted as I know there are others with greater merit and certainly can speak with more eloquence. I would like to think that the main reason for the Organising Committee inviting me was my intimate and almost continuous association with TTSH for over 50 years.

The War Years: 1942 to 1946

It was on 23 November 1942 during the Japanese Occupation as a young 11-year-old when I first lived in the doctors' quarters at TTSH (the present premises of offices of Consultants at 3,4,5 Jalan Tan Tock Seng). This was when my father, the late Dr Benjamin Chew, and practically the whole staff with families including over 500 patients were transferred from distant Yio Chu Kang Mental Hospital (named Miyako Byoin by the Japanese authorities and later Woodbridge Hospital by the British). Its more central location and proximity to town meant that many more people could avail themselves of the medical facilities and for the staff better living conditions. With this move, the medical staff was increased by the recruitment of a few more young doctors, some having passed a special qualifying examination set by their local peers. TTSH was renamed Hakuai Byoin and became the main civil hospital. Nine months earlier, the same group had been forced to move in a long convoy of ambulances and trucks from General Hospital (SGH) at Sepoy Lines to Yio Chu Kang, SGH having been acquired by the Japanese Military soon after General Percival's surrender.

TTSH was then organised by the most senior local doctor, Dr W A Balhetchet, into 2 main medical units headed by Dr Chew and Dr Clarence Smith, and 2 surgical units led by Dr A TS Chong and Dr Balhetchet himself who also served as Chief Medical Officer. There also was a fairly nominal Japanese Administrator. In addition, there were Eye, Ear, Nose and Throat and Dental Services with a clinical laboratory. Radiology comprised mainly fluoroscopy of the chest and screening for fractures,

In a letter to Dr Alex Chao on 17 February 1994, my father wrote: "TTSH became more than a hospital. It was a haven and a home for us and the steadily increasing number of patients. Our experiences of death and continuing disease at first horrendous which we had all shared, brought us together as a family."

Tuberculosis, malaria, dysenteries and other infectious diseases were common. Medical supplies and drugs became very scarce. Doctors did their best to eke out the available stocks, relying much on good nursing and scrupulous use of medicines. They worked long hours with hardly any time for family or recreation. There was an amazing *esprit de corps*. My missionary brother Jim recently wrote: "From the eyes of his children, Pop was centrestage as he had such rapport with everyone. But we also had sad moments with the death of father's mother from dysentery, what if modern drugs were available."

With hardly any salary, except increasingly worthless banana currency, many grew their own vegetables, including tapioca roots, for there was no good bread and rice and reared chickens. A good measure of relief was provided by selling or exchanging monthly ration of cigarettes for essential foodstuff. Grateful patients and their families would bring much needed food in the form of vegetables, poultry and eggs. These were indeed heartwarming gestures that brought much joy to the staff. We even had a couple of piglets reared affectionately as pets. I remember Ernest (my youngest brother, the historian and until recently, the Dean of Arts) refusing to eat pork after learning his pet became food!

Tuberculosis was a scourge and the number afflicted increased steadily to 2500 by 1945. They were looked after by Dr Chew assisted by Dr Lee Keng Chin, father of Dr Lee Guat Siew, a much sought after physician and teacher at Medical Unit II, SGH, and Dr Ong Swee Law who was to become the first Chairman of our Zoo. The unilateral pulmonary tuberculosis cases had artificial pneumothorax as the main stay of therapy and many did generally well including 3 doctors.

Because of the relative close proximity of the Sime Road Internment Camp (now the site of Singapore Island Country Club), sick internees were sent regularly

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for treatment as outpatients. These less ill patients often acted as couriers with life saving medicines for the seriously sick in the camp. This practice was of course an offence. The threat of being discovered and tortured by the Kempeitai (Secret Police) did not deter the staff from their duty of helping the sick. The frequent areas where these exchanges took place were the dark screening room where the adapted doctor's vision was clear but not the unsuspecting Japanese guard's, and the hospital canteen managed by Elizabeth Choy.

In 1945, Dr Smith developed a lung abscess which threatened his life. At that time, the hospital received underground information that some supplies of penicillin were available at Sime Road Camp, dropped by the US Air Force. The hospital's pathologist, Dr L S da Silva who later became senior pathologist at SGH risked a trip to the camp and returned with the wonder drug. This was promptly administered to Dr Smith by my father (Dr B Chew)-the first time penicillin was used in Singapore. Supported by expert nursing care, the patient's critical condition rapidly improved, enabling him to be evacuated by air soon after Japan surrendered in August 1945 for a successful lobectomy in London. Dr Smith later returned to Singapore to serve as physician and Medical Superintendent of TTSH until his retirement in 1962.

Thanks to Dr Ernest Monteiro's work on vitamin B1 and beri-beri at TTSH shortly before the War, doctors had many remarkable recoveries with cardiac beri-beri-another wartime scourge. Dr Monteiro became the first Singaporean Professor of Clinical Medicine and was in charge of Middleton Hospital. He lived with his family including his son Edmund within its grounds.

As the War progressed, reliable sources had it that young unemployed men might be recruited by the Japanese Military to boost their belated war efforts. Thus to avoid this threat, Dr Balhetchet proposed that sons of the staff be "officially" employed in pharmacy, laboratory or dental clinic. I opted for the latter and assisted Drs Lim Eng Bee and Bong Lip Look mixing amalgam and sterilising instruments. This was my first job. I remember Dr Yeoh Bok Choon was the Eye Surgeon and Dr Lai En Fo the ENT Surgeon. Other doctors included Toh Chiong Hieng, V Thambypillai, Sarban Singh and K Sivam. Amongst the nurses were future matrons-for example, Lim Poh Lan, Louise Chiew, H H Tan, the Ng and D'Cruz sisters, and dressers included Chong Kow Thye, Lim Keng Wah, Ng Kian Seng and the Nalpon brothers.

TTSH was the centre where doctors often discussed not only their patients, teaching and learning by their bedside but also practical policies they deeply felt, e.g. the need for a unified medical service with local and colonial doctors treated equally. The three and a half years of Japanese occupation gave local health teams tremendous opportunities to exercise initiative and to

assume full responsibility for the medical services under the most trying conditions.

The local doctors formed a committee and Dr Chew who was elected secretary penned a letter to the Secretary of State for the Colonies in London requesting removal of the two-tier service advocating all work as equal. Within a month the reply came affirming all they had written. However, it was only 3 years later that this materialised.

My early association with TTSH came to an end temporarily in January 1946 with the resignation of Dr Chew. In a memorial tribute to my father, Dr Khoo Oon Teik former Professor and Chairman Department of Medicine at SGH wrote in the Singapore Medical Journal, "He resigned from government service in 1946 following disagreement with the policy of the British Military Administration's Administrator, Col. R Walkinshaw. Although he was appointed to start the medical unit at SGH and awarded the fellowship for MRCP, he was not allowed to treat his many tuberculosis patients at TTSH."

Dr Chew offered the Colonel a compromise of serving SGH during the day and seeing his patients at TTSH in the evenings. However, the Colonel abruptly and rudely refused. This and the delay to have a unified medical service were the reasons for his resignation. Seven other doctors also resigned.

The many tuberculosis sufferers were Dr Chew's chief concern. Although his colleague and friend Dr B R Sreenivasan was keeping up the fight against tuberculosis at Kandang Kerbau Hospital he eventually resigned when he was unjustifiably denied further training. Something had to be done urgently. Following meetings Dr Chew had with concerned doctors, influential businessmen and community leaders, the Singapore Anti-Tuberculosis Association (SATA) was launched and duly registered on 23 August 1947. To this day, 50 years on, SATA continues in its role complementing our efficient Control Unit at TTSH.

Tribute and Dedication

I am convinced it was my father's and the family's completely committed Christian faith that upheld us during those difficult years. My brother Jim wrote: "My father was to mention later that God took away the vestiges of hatred in his heart for the Japanese and replaced this with compassion-a quality all doctors and patients alike cherish regardless of race or creed".

I made a personal decision early in life to follow in the footsteps of my father to study medicine. Many of us here have not experienced the horrendous effects of war that engulfed Singapore. Some of what I observed as a young person growing within the grounds of SGH included: seeing the numerous bodies haphazardly placed

in the field outside the SGH mortuary following the first waves of bombs directly hitting nearby Chinatown on the morning of 8 December 1941 and later on 15 February 1942 seeing the bodies of our dear medical students in the field not far from the College of Medicine Building. However, it was my father's love and compassion for his fellowmen and patients and dedication to his profession that provided an indelible mark on me.

These cruel effects of war coupled with my father's example underlined to me the noble character of the medical profession and community spirit of generosity and compassion on which TTSH itself was founded.

Therefore in recognition of his contribution to Medicine and to TTSH as well as his efforts in the fight against Tuberculosis, it is with much emotion that I dedicate this oration to him and his memory. Dr Benjamin Chew was born in Malacca on 11 October 1907 and would have been 90 years old today (Fig. 1).

I have dealt at some length with the events of the War Years as I feel these should be documented before our memories grow dim and fail.



DR BENJAMIN CHEW
11 OCTOBER 1907 - 10 OCTOBER 1994

Fig. 1. Dr Benjamin Chew (1907-1994).

1957 On

I returned to TTSH in May 1957 having completed 6 years of medical studies in Hong Kong, housemanship at Queen Mary Hospital and Professor Gordon Ransome's unit at SGH. This was followed by a short routine surgical posting with Dr H M McGladdery.

A firm handshake from Dr Clarence Smith welcomed my return. He was the Medical Superintendent and Head of one of the three Chest Units with Drs Wong Hin Sun and Hume Fine Jackson as assistants. TTSH had become the centre of treatment for Tuberculosis, although it also had patients with lung cancer, chronic bronchitis and emphysema (many addicted with opium), asthma and bronchiectasis.

I was exceptionally glad as this was my very chance to train in chest medicine. I was placed in Dr John Grove-White's unit, working closely under Dr Yeoh Seang

Aun's supervision. He would play a special role in influencing my career. We had both been in Professor Ransome's medical unit 1. He knew of my special interest in Medicine and Medical Education and had always been supportive of my plans.

The third unit was under Dr G Cummins. Although there were 3 units I was impressed that the staff worked so closely as a team, covering each other willingly in their duties and delivering excellent care. I could not help thinking these were wonderful values inherited from their predecessors during the War Years.

Tuberculosis was still a formidable problem with over 5000 new cases annually. Although we had potent chemotherapy of streptomycin, paraminosalicylic acid (PAS) and isoniazid (INH), pneumoperitonium was still widely used. Drug resistance and relapses were common. Prolonged bed rest and good nourishment were still advocated. Hence much improvements in treatment methods were necessary.

With the support of my senior colleagues, I was selected for further studies in 1959 and underwent refresher training in General Medicine under Professor Ransome and Dr T J Danaraj. I was placed under the direct tutelage of Dr Seah Cheng Siang. My trainee colleagues and I will always remember with gratitude Cheng Siang's sacrifice when he undertook our active call duties while we, who were studying for the MRCP, went only on passive calls.

On returning to TTSH in early 1961 after training and examinations in Scotland and Wales, I found myself again with Seang Aun, now the Head. My family and I moved into 15 Akyab Road, TTSH quarters for doctors soon after and this was to be our home for over 30 years until 1992.

Progress in Tuberculosis Control

Control methods had greatly improved. Statistical and epidemiological data were now better appreciated with the establishment of the Tuberculosis Control Unit, chemotherapy regimens strengthened and more efficiently delivered following successful drug trials in the 1950s by the British Medical Research Council (BMRC) using various combinations of streptomycin, PAS and INH. This work was extended by the group at Edinburgh led by John Crofton. They showed that it was possible to have near 100% success, provided these drugs were administered regularly. These remarkable results led to the adoption of a similar treatment policy at TTSH. The three-drug combination was given daily for 6 months followed by PAS and INH up to a total of one and a half to two years. The drawbacks were the long duration and of swallowing 20 unpalatable tablets of PAS and INH.

Professor Crofton whom I had the pleasure of knowing as a teacher and examiner, subsequently became a

life-long friend and also of this hospital. He was knighted for his contributions to Medicine and Tuberculosis, and visited Singapore and TTSH as President of the Royal College of Physicians of Edinburgh in 1976. He was made an Honorary Fellow of our Academy in 1978.

Further improvements in delivery of acceptable regimens under routine treatment conditions were necessary. This led to the formation of the TTSH Tuberculosis Research Committee with Yeoh Seang Aun as Chairman. Other early members were Wong Hin Sun, Andrew Chew, James Supramaniam, William Chan, S Devi and myself. This committee was elevated in 1966 to a Ministry of Healths committee when we commenced joint studies with the BMRC led by Dr Wallace Fox (Fig. 2). Other returning chest specialists from the UK and Australia joining this group in the 60s and 70s included Poh Soo Chuan, Ng Yook Khim, F J Jayaratnam, Ng Kwok Choy, Lee Siew Khaw, Dhanwant Singh, Ong Yong Yau, Tan Tiong Har and Teo Seng Kee. Other investigators were Tan Kai Kiat and Ian Snodgrass with Mrs K L Lo as bacteriologist. David Macfadyen also joined the Committee as a World Health Organisation (WHO) representative in the late 60s for a few years.

At this juncture, I thought it relevant to highlight some studies. For instance, in the early 70s it was shown that fully supervised treatment with streptomycin and INH given twice a week was highly effective and more acceptable than the standard daily regimen. It was also shown that ethambutol was a more palatable drug than PAS. In yet another study with the advent of rifampicin, the tremendous value of full supervision and intermittent therapy was confirmed. These studies were significant as they paved the way for short course regimens of 6 months which the committee had been investigating since 1975. The result showed that these regimens were highly effective. They also offered operational advantages: there was a decrease in utilisation of treatment services with the shorter duration and substantial corresponding economic savings. They were recognised by

WHO with results published extensively and presented at international meetings gaining wide acceptance and used successfully all over the world. Thus this concept of short course chemotherapy had truly revolutionised the treatment of Tuberculosis.

Allow me to pay tribute to the physicians of this committee who have contributed so much to the advancement in Tuberculosis chemotherapy and also those of the BMRC led by Wallace Fox. Sadly our collaboration with BMRC ended with the retirement of Professor W Fox and the dissolution of this tuberculosis research section in London early this decade.

The Expanding Role of the Hospital

The very title “doctor” from the Latin *docere* “to teach” implies a responsibility for all doctors to share knowledge and impart information. This has been my abiding interest and preoccupation. Although TTSH was the main teaching hospital before the War, we had no students in 1961. During regular visits to SGH I was invited by my old chief, Sir Gordon Ransome to take weekly teaching sessions. In turn he was often invited over to discuss our more complex cases. These reciprocal visits led to expanding the role of TTSH to have more non-tuberculosis chest and general medical cases and the teaching of medical students. I also had the privilege of joining my old friend Cheng Siang (who had been appointed Physician and Medical Superintendent) on his Sunday rounds at Toa Payoh Hospital (TPH) with Andrew Chew and Wong Kum Hoong, as Senior Registrars. These rounds had indeed widened my knowledge and expertise in general medicine and in turn I assisted in management of their chest cases.

With the sympathetic support of our Medical Superintendent, H F Jackson and other physicians, it became a matter of time before we saw medical students in the wards. We started modestly with a group for Elementary Clinics, amongst whom were S Krishnamoorthy, Lindy Lin and at least a dozen others. Many returned to serve TTSH.

By 1963, we had converted a ward for acute General Medical cases followed shortly by another two. I had Si-toe Kum Fatt manage this first ward and before long it was filled to capacity. We even reported in the Singapore Medical Journal of one of our interesting first patients with “Perforation of the Interventricular Septum following Myocardial Infarction”. Another early study was establishing the value of pleural biopsy in the diagnosis of pleural effusion, published later in the Far East and Singapore Medical Journals, with Senior Pathologist Tan Kheng Khoo. This was soon adopted as a routine procedure. Soon after, the hospital was also recognised for housemanship training and more senior medical students were sent for official postings. Amongst the first house physicians was Dr Chen Ai Ju, Director of



Fig. 2. Tuberculosis Research Committee with Wallace Fox (centre)

Medical Services, Ministry of Health, Singapore.

In 1964 soon after I was appointed Consultant, the units were reorganised by the recently appointed Medical Superintendent, Andrew Chew into 4 units: hence the formation of Medical Unit IV or the Department of **Medicine IV**, with me as Foundation Head assisted by Lee Siew Khaw. With subsequent promotions and transfers, Ong Yong Yau became my Senior Registrar in 1973 and Consultant in 1977 (Fig. 3). He played a tremendous role in teaching, training and research. Tan Tiong Har, Teo Seng Kee and K Nadarajah also joined us and we were a good team. Yong Yau was to cover my duties frequently especially in the late 70s following administration changes in the Ministry and at TTSH when I was officiating and later officially designated Medical Director of the hospital in 1979. With this change, Feng Pao Hsui was appointed Head, Department of Medicine IV and his position at SGH was taken over by Yong Yau who became Professor Seah Cheng Siang's Deputy Head.

In the meantime, William Chan followed by Francis Jayaratnam, Yeoh Seang Aun followed by S Devi, Y K Ng, S K Lee and more recently Chee Yam Cheng, and James Supramaniam followed by Poh Soo Chuan and later Sonny Wang had established and consolidated the development of Departments of **Medicine I, II and III** respectively.



Fig. 3. Department of Medicine IV (1973) with Visiting Consultant, Ian Grant.

The Conversion to a General Hospital

With the relatively rapid decline of Tuberculosis, and with the disciplines of Medicine, Chest Medicine and Diagnostic Radiology well established the stage was set in the late 60s for the transformation of TTSH into a general hospital. Of first priority was Cardiothoracic Surgery and with it an Anaesthetic Service. We were dependent on the surgical units at SGH and TPH for definitive surgery. Professor Yeoh Ghim Seng, Drs H M McGladdery, Yahya Cohen and Choo Jim Eng and their teams provided sterling services. In 1965, Dr N C Tan was entrusted with the development of the **Cardio-**

thoracic Surgery Department. The pioneers in the department were Dixie Tan (perfusionist), Eric Goonetilleke (anaesthetist), Francis Chia, Wu Dar Ching, Tan King Twok and Joseph Sheares (surgeons). By 1966, this department had its first patient and the following year open heart surgery commenced with the assistance of a visiting team from Melbourne. In 1976, Singapore had its first coronary bypass operation (CABG) assisted by a team from Cleveland Clinic. With the completion of the new SGH in 1981, this department which had brought much distinction to TTSH was transferred to SGH.

In addition to Cardiothoracic Surgery, the Ministry of Health Committee on Medical Specialisation had identified **Neurosurgery and Neurology** for development. Dr C F Tham was given the task of planning and became the first Head in 1972, assisted by Loong Si Chin (Neurology) and Gopal Baratham (Neurosurgery). Through the kind offices of Donald Gunn (former Professor of Orthopaedic Surgery at SGH) and Wally Nelson of the Foundation of International Education in Neurosurgery of North America, eminent neurosurgeons contributed their services by working in rotation in the formative years of the department over a three-year period. With this foundation reinforced by the return of neurosurgeons James Khoo and Ong Peck Leong, and neurologists Michael Yap and Nei I Ping following their training, the departments were recognised not only as a centre for treatment of neurological disorders and trauma, but also in the training of neurosurgeons and neurologists. Many successful trainees are now serving in Singapore, including the present Head of Neurology, Helen Tjia and her staff, and our neurosurgeons led today by Ong Peck Leong. The establishment of the Neuroscience Institute within the new TTSH will no doubt be another welcome landmark to the departments.

With advances in computerised scanning, the first CT Scanner in Singapore was installed at our **Radiology** Department in 1977. This was a tremendous breakthrough in non-invasive diagnosis of head injuries, brain tumours, strokes and other neurological disorders. Rapid advances in diagnostic imaging soon saw the replacement of the brain scanner by a whole body scanner, and more recently magnetic resonance imaging (MRI) bringing improvements in diagnosis for all clinical services as TTSH was transforming itself into a general hospital.

The department of **Rehabilitation Medicine** was formed with the completion of Singapore's first comprehensive centre following a generous donation by Dato Lee Chee San. Dato Lee himself, a disabled hemiplegic was a patient of Professor Khoo Oon Teik and had expressed his desire to contribute in this area. This centre not only cared for patients at TTSH but was to serve all the other hospitals. We had much advice from Sir George Bedbrook of Perth, friend of Professor N Balachandran. The latter continues to have an exceptional interest in the

department and I still remember the weekly Wednesday conferences we had at the centre in the late 70s with Robert Don, Tan Eng Seng and our physio and occupational therapist colleagues.

1973 also saw the formal establishment of **Cardiovascular Medicine** led by Abdullah Johan and Anne Chan, and **Anaesthesia** by Raymond Pereira, Lilian Lee and later by M K Chin. Now led by cardiologist Alfred Cheng and Anaesthesia by San Win Min, these departments continue steadily the legacy of their predecessors.

Wong Nan Eong, Singapore's first trained urologist was appointed to head **General Surgery** in 1974. The department's early strength was naturally in urology. The first radical perineal prostatectomy was performed in the department. The department is today especially noted for excellent work in endoscopic surgery, gastrointestinal and understandably, thoracic surgery, with the appointment of Singapore's only designated thoracic surgeon. The early pioneers were Anthony Heng, Suraj Vij, and since 1984 the unit has been most ably led by Low Cheng Hock.

Complementing surgery was the formation of **Accident and Emergency** (A and E) services together with **Orthopaedic Surgery**, initially as services within General Surgery in 1975 led by Chan Heng Thye. He continued to lead these departments established in 1976 till his resignation in 1980. He was succeeded by Tong G On and later S Krishnamoorthy, one of our first post-war students. The department has been headed by Low Yin Peng since 1988. They with Wong Ho Poh who leads our A & E today, are all outstanding orthopaedic surgeons and have contributed to the high standards of orthopaedic surgery and emergency medicine in Singapore.

The Department of **Paediatrics** was formed in 1975 with Cheng Heng Kock as Foundation Head, initially with only 40 beds. By 1981, it had become the largest paediatric unit in Singapore with 104 beds catering for over 7300 admissions for the year, teaching medical students and training specialist paediatricians. Within a decade, the department was noted for its outstanding work in thalassaemia and childhood cancers. Heng Kock assisted by June Lou and his team were tasked with the planning of the new KK Women's & Children's Hospital. Deservedly, he was appointed Chairman, Medical Board of the new hospital, when the department moved to its new premises in May this year.

Thus by 1976, the transformation of TTSH into the second largest general hospital with over 1300 beds serving the eastern region of Singapore was complete.

Following these developments, with the rapidly rising demand for Eye and ENT services these specialties commenced first on an ambulatory basis as extensions of the parent departments at SGH in 1978 sharing between them a pavilion ward (Ward 5). Not long after, they

became independent departments headed by Victor Yong for **Ophthalmology** in 1979 and A K Abraham for **Otorhinolaryngology** in 1983. While the Eye department had special strengths in cataract and laser surgery and glaucoma, it also excelled in vitro-retina and neuro-ophthalmology and in the training of general specialist ophthalmologists, being the most sought department for appointments by aspiring young eye surgeons, producing three gold medalists in our MMed/FRCS examinations.

The ENT service is today headed by A B John and over the years, has established its strengths in rhinology, voice restoration, audiology testing and laser surgery. Working closely with neurosurgeons and neurologists, its team of ENT surgeons will certainly enhance neuro-otology, bringing more eminence in this area especially with the recent recruitment of a brilliant young academican.

1981 On

Further administrative changes were to take place in the Ministry, and in 1981, I was appointed at short notice Deputy Director of Medical Services in charge of Hospitals (DDMS, Hospitals), and in my place at TTSH came Dr Moses Tay (Table I). However, Dr Ng Kwok Choy soon succeeded Moses who was appointed Anglican Bishop of Singapore and is today also the Archbishop of the region (Fig. 4).

My association with the hospital remained especially close, not only because of our residence within the grounds and my wife, Anna's work at the Control Unit (Fig. 5), but my continuing involvement in research through the Ministry's Tuberculosis Research Committee, in the Civil Aviation Medical Board, seeing to my patients, and attending ward rounds and conferences when time permitted. The future planning and development of TTSH continued to be an important preoccupation. Indeed the concept of rebuilding and bringing the hospital closer to the main road was conceived in the 60s entitled the **Vickers** plan. However, it was only in the 80s that plans for comprehensive rebuilding of hospitals

TABLE I: MEDICAL DIRECTORS, TAN TOCK SENG HOSPITAL

Dr WA Balhetchet	(1945 - 1947)
Dr RJ Grove-White	(1947 - 1957)
Dr CE Smith	(1957 - 1962)
Dr Lee Yong Kiat	(March 1962 - August 1962)
Dr HF Jackson	(August 1962 - May 1964)
Dr Andrew GK Chew	(May 1964 - March 1967)
Dr JMJ Supramaniam	(March 1967 - February 1979)
Dr Chew Chin Hin	(March 1979 - December 1981)
Dr Moses Tay	(December 1981 - March 1982)
Dr Ng Kwok Choy	(April 1982 - May 1984)
Dr Daniel Leong	(May 1984 - February 1985)
Dr Ng Kwok Choy	(March 1985 - March 1992)

Heads of Departments 1983
Tan Tock Seng Hospital

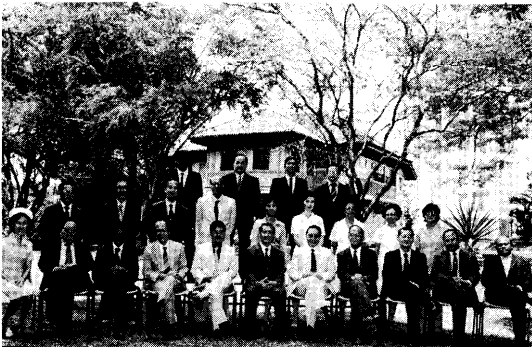


Fig. 4. Heads with Dr A Chew, PS (H)/DMS and Dr C H Chew, DDMS (Hospitals).



Fig. 5. Tuberculosis Control Unit.

were completed. These have now materialised with the opening of the new Woodbridge, New Changi and the KK Women's & Children's hospitals, and shortly with our own new premises.

Singapore's demographic pattern and life expectancy has been experiencing profound changes: in 1986, there were over 200 000 Singaporeans aged 60 years or older comprising 8% of the population; by the year 2000, it was projected there would be 18%, and by 2030 30%. The establishment of **Geriatric Medicine** was therefore pressing. Dr F J Jayaratnam (or Jaya as he is popularly known) was identified to pioneer and plan a comprehensive geriatric service. Jaya committed himself deeply to the task. Soon after visiting centres in the United Kingdom, especially Glasgow which had the first chair of Geriatric Medicine in Sir Fergus Anderson (one of our visitors in the 70s) and Cardiff where Professor MSP Pathy had also assisted us, he first established a division of geriatrics within his department in 1987 and selected his core of trainees. Almost all became well-trained geriatricians including Philip Choo, Jaya's successor as Head. In 1988, Department of Medicine I was redesignated the Department of Geriatric Medicine, becoming the first of its discipline in Singapore. The department soon gained rapid recognition and contributed to the formation of

others at Alexandra and Changi Hospitals by deploying its trained physicians.

On 29 July 1986, I received a letter from my successor, Feng Pao Hsui proposing "to develop further Rheumatology/Clinical Immunology". Rheumatology had advanced from I quote "an aches and pains specialty to one dealing with diverse nature of auto-immunity like lupus". Team members must comprise good general physicians. He requested modestly for a Head, 2 consultants, 2 senior registrars or registrars, a research fellow and 2 medical officers. He had Boey Mee Leng and Ng Swee Cheng, and asked for Chng Hiok Hee from Alexandra Hospital (AH), Fong Kok Yong and Howe Hwee Siew from SGH. His requests were soon acceded to. Today they are all consultants with the Department of **Rheumatology and Immunology** established in 1992 and led by Boey Mee Leng. There are now many more well trained rheumatologists caring for patients in Singapore and the region, resulting from Feng's foresight. In addition, the department has an Autoimmune Research Laboratory and has gained worldwide recognition through numerous research publications and hosted two international conferences in 1989 and more recently this year.

Poh Soo Chuan succeeded to the Headship of the Department of Medicine III in 1974. Soo Chuan, supported by his assistants such as Sonny Wang, made significant inroads in **Respiratory Medicine**. They established the first comprehensive Respiratory Function Laboratory in 1967, the whole body box in 1984 and in 1986, assembled the department's own polysomnograph. The results of their many studies, in particular the effects of opium addiction in cigarette smokers and lung function in our own population have been reported in numerous journals and acknowledged in major textbooks of chest medicine. Sonny Wang, Head since 1994, has continued collaborating and investigating over 100 cases with colleagues in the Labour Ministry and reported several new causes of Occupational Asthma. Their lung cancer programme has provided comprehensive management of over 300 patients in collaboration with radiotherapists, oncologists and surgeons. The Department has also bronchoscopists adept in laser resection and stenting, providing much palliative relief for inoperable lung cancers. More recently, the department with its Tuberculosis Control Unit has been tasked to formulate the Singapore Tuberculosis Elimination Programme (STEP). This indeed places Singapore as the first country to embark on such a bold endeavour.

The Department of **General Medicine**, formally the Department of Medicine II, was formed in 1992. I am especially glad that we have General Medicine in this age of sub-specialisation as it is so vitally important to provide patients with the highest standards of holistic care. Therefore Chee Yam Cheng and his able physi-

cians, not only teach our medical students the principles of Medicine but also provide highly recognised basic and advanced specialty training. In addition, the department is also known for its special interest in gastroenterology and endocrinology.

In the mid-80s, we had a visiting expert in the person of Professor Philip Seager of the UK Royal College of Psychiatrists. His main recommendation was the establishment of psychiatric units within acute general hospitals. Thus TTSH became the first to establish such a unit, subsequently developing into the Department of **Psychological Medicine** under Ong Thiew Chai.

Also in the 80s, Middleton Hospital under the stewardship of Edmund Monteiro (son of Professor E Monteiro) was renamed the **Communicable Disease Centre** and came under the administration of TTSH. This centre now headed by Wong Sin Yew has had a long and illustrious history since the days of deadly smallpox, diphtheria and malaria epidemics. It is now meeting with great confidence the challenges of newer diseases such as HIV and other drug resistant infections.

Medical Education and Training

Medicine is a noble and ancient profession, and as doctors all of us have a duty to advance the art and science of Medicine and promote the highest standards of professional and ethical practice. Indeed these are the Academy of Medicine's main mission, and the Singapore Medical Council's responsibility to ensure that all these are scrupulously upheld. I have been privileged to serve both these influential bodies for 2 decades each and continue to serve the Academy on the Board of the School of Postgraduate Medical Studies, and the Council on its CME committee. Medical Education is a life-long process, i.e. a continuum from undergraduate through postgraduate education, and for some even beyond retirement years. TTSH has a tremendous heritage in teaching. Its move to the present location coincided aptly with another very significant milestone in our history: the founding of our Medical School in 1905. In 1907 TTSH had its first clinical students and by 1910 its first 12 graduates amongst whom was Dr Chen Su Lan, all tutored in our pavilion wards still existing to this day. The teaching reputation grew, graduating doctors with standards second to none in the British Empire until the dark years of war.

I had earlier described how TTSH modestly began to have medical students after the war, and the role of training. Today we have more senior and final year students coming regularly, not only for general and chest medicine and surgery but for most of the specialty disciplines. I earlier mentioned that it is a duty for all doctors to impart knowledge, and indeed it is a tribute to all our clinical teachers that TTSH has consistently been voted the best hospital for teaching by our undergraduates.

Nor is this all: all our departments are involved in both basic and advanced specialty training, with postings not only recognised in Singapore but also by the Royal Colleges of UK and Australasia. TTSH has been an examination centre for our joint MMed (Surgery) and FRCS (Edinburgh) examinations. Early this year, TTSH with NUH hosted the first joint MMed (Internal Medicine) and MRCP (UK) examination with Chee Yam Cheng as the senior TTSH host examiner, and past president of the Edinburgh College Anthony Toft as the senior UK examiner. Numerous candidates have sat for such examinations through the hospital and achieved remarkable results, including the award of gold medals by our Academy and the Royal Colleges. I am certain the educational role of TTSH will continue to strengthen even further developing relevant and realistic strategies and always keeping pace with rapid advances.

Epilogue

At the TTSH Dinner and Dance in 1981 with Mr Goh Chok Tong, the then Minister of Health as our Guest of Honour, I paid tribute to our loyal staff who as a team had given sterling services to their fellowmen. I also quoted Robert Louis Stevenson who wrote, "gentleness and cheerfulness, these come before all morality-they

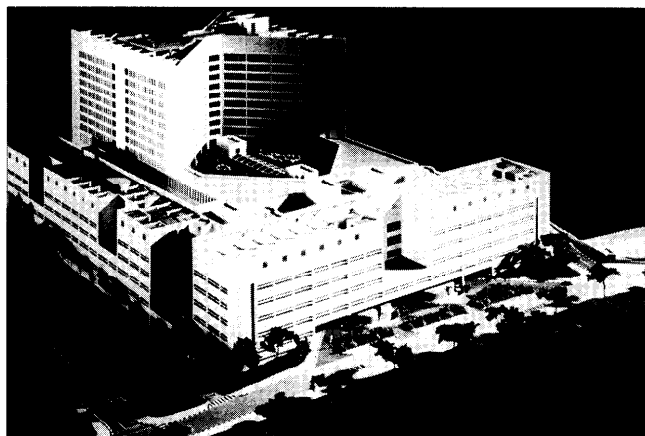


Fig. 6. New Tan Tock Seng Hospital.

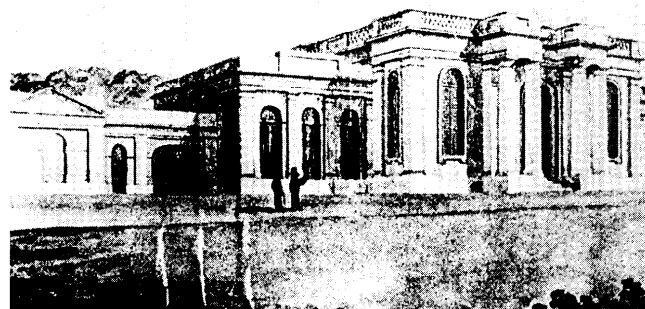


Fig. 7. First Tan Tock Seng Hospital.



Fig. 8. Tan Tock Seng Esq.

are the perfect duties". These I believe are as true today as they were a century ago. Let us therefore continue to

cherish these values and treasure the knowledge that care administered with gentleness, compassion and cheerfulness will long be remembered by many grateful patients.

TTSH was restructured in 1992 i.e. a year after my retirement from the Ministry of Health. As the next millennium approaches, TTSH will have its new award-winning building equipped with the most up-to-date facilities (Fig. 6). Understandably, its completion and commissioning is awaited with great anticipation. However, as we look towards the future of this glorious institution, let us never forget and lose sight that it is you the people of TTSH that embody its generous and humanitarian past and present and will, with all certainty continue our founders' legacy of care and compassion (Figs. 7 & 8).

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