The Path of Making History – Interview with Prof Chew Chin Hin

Interview by Dr Jipson Quah (JQ), Editorial Board Member

Prof Chew Chin Hin (CCH) is an Emeritus Consultant at Tan Tock Seng Hospital (TTSH). He was previously head of Medical Unit IV (which is the present Department of Rheumatology, Allergy & Immunology) and the medical superintendent of TTSH. He also served as Deputy Director of Medical Services.

Prof Chew was also the chairman of the Tuberculosis Research Committee, which collaborated with the British Medical Research Council to produce landmark papers on chemotherapy regimes which are used as standard therapy today. He initiated the Advance Medical Directive as chairman of the National Medical Ethics Committee and also served on the Civil Aviation Medical Board as chairman and advisor.

In 2010, Prof Chew was the first and only Singaporean to be conferred the prestigious Mastership in the American College of Physicians. The Mastership has been presented to fewer than 700 doctors worldwide since 1923. Prof Chew was also the Master of the Academy of Medicine, Singapore (AMS), from 1973 to 1975 and is the honorary advisor to the Division of Graduate Medical Studies, National University of Singapore.

Medical training

JQ: Prof Chew, thank you for speaking to *SMA News*. Could you share with us what postgraduate training was like in the past?

CCH: With regard to our training systems, I think we will have to go back in history, where our medical school has always upheld a sound standard of clinical and bedside medicine. We were well known throughout the British Empire for our clinical bedside medicine. We were second to none even during the pre-war days and our graduates were registrable in the General Medical Council of the UK even in the early years. However, postgraduate education was mainly through attending clinical rounds and meetings, often led by willing teachers like Profs Gordon Ransome and Eric Mekie. They were superb clinicians.

There were no formal postgraduate training programmes before World War II. The colonial government did not regard this as a priority and sent only a few selected doctors, to the UK, mainly to sit for diploma examinations. These doctors who were sent overseas were discouraged from taking the higher examinations like the Membership of the Royal Colleges of Physicians of the United Kingdom (MRCP) and Fellowship of the Royal Colleges of Surgeons (FRCS). Even Dr Gopal Haridas, our doyen paediatrician, took the London MRCP without government approval. Though his scholarship was only for the Diploma of Child Health, he easily passed both examinations. Soon after the war, the Government saw Singapore's need for more specialists. They became more liberal, sending more doctors on fellowships and scholarships, including Profs Benjamin Sheares, Ernest Monteiro, Khoo Oon Teik and others.

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Thus, AMS was formed in 1957 to formalise our specialist training programmes. In those early days, training was mostly made up of postings to established hospital departments, and doctors learning and inheriting values and skills from their teachers and peers, before proceeding to the UK to take memberships and fellowships.

After the war, in the 1950s and 60s, many of us who returned with our qualifications felt that Singapore should have our own postgraduate training programmes and qualifications.

JQ: How did our graduates fare?

CCH: Because they were very well trained in their clinical and surgical skills, our postgraduates were all prepared for the examinations and some were even recognised as specialists upon their return. In the pre-war colonial days, local doctors were treated differently from the colonials. There were two distinct grades – locals were appointed as assistant medical officers, whereas the colonials were directly appointed as medical officers. Very few locals were promoted to the position of medical officer.

This changed soon after the war. As the colonial doctors were all interned following the surrender to the Japanese, local doctors simply had to take upon themselves the responsibility to manage the hospitals for the local population during those trying years. They showed and proved that not only were they capable of providing sound clinical management of patients but were also adept in administration. The hospitals left for the local population were TTSH, Kandang Kerbau Hospital (KKH; the maternity hospital) and the Mental Hospital at Yio Chu Kang, later known as Woodbridge Hospital. Singapore General Hospital (SGH) was reserved for the Japanese and its military.

JQ: Who were the biggest pushers in the formation of our own training programmes at that time?

CCH: AMS was mainly responsible, through several memorandums sent to the Government. In the meantime, our doctors had to get their higher qualifications abroad. In October 1967, Dr Toh Chin Chye, then deputy prime minister, censured the medical faculty for not making progress with regard to postgraduate training, medical education and examinations. This was reported on the front page of the Straits Times the next day.

The response of the Academy was immediate and Dr Toh agreed to meet the council. He directed the master, Dr K Shanmugaratnam, to chair a committee to formalise postgraduate education and the award of local higher qualifications. This led to the formation of an independent Board to oversee the School of Postgraduate Medical Studies and the award of the Master of Medicine (MMed) degree. The Board had equal representation of the Academy and the Faculty of Medicine, with the Director of Medical Services (DMS) or his deputy as a member. Soon after, Dr Toh himself was appointed vice chancellor and became the first chairman of the Board.

The first award of MMed was in internal medicine and surgery in 1970. A year later, we had MMed in paediatrics, and obstetrics and gynaecology.

From the beginning, we insisted that standards must be stringent and internationally validated. Thus, we appointed external examiners, which included a few presidents from the UK and Australasian colleges in the early years. Their reports attested to the high standards of the MMed

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being equal, if not more rigorous, than their corresponding memberships and fellowships in the UK and Australasia.

JQ: Prof, do you recall who some of the first graduates of the local MMed were?

CCH: If I remember correctly, some early MMed graduates were Drs Dixie Tan, one of our first lady Members of Parliament, and Karin Virabhak, my registrar in the 1960s. Later, we had Profs Ong Yong Yau, Ng Han Seong, Woo Keng Thye, Tan Sri Dato Dr Abu Bakar in Kuala Lumpur, Chee Yam Cheng and Fock Kwong Ming , as well as Low Cheng Hock, Walter Tan and many others in surgery. Prof Tan Sri Dato Dr Abu Bakar who became Director General of Health of Malaysia is now the vice chancellor of the International Medical University, Malaysia.

Today, most of our local consultants have our MMed degrees.

Medical advancement

JQ: Prof, would you care to share some significant advancement in medicine that you have witnessed?

CCH: Back in the pre-war days, we had sulphonamides but no antibiotics for infections. My father, Dr Benjamin Chew, gave the first penicillin injection at TTSH when the US forces had their Boeing B-29 bombers drop medical supplies at Sime Road Camp in August 1945. That was like a god-sent because then, those who had severe infections usually died without antibiotics. Dr Clarence Smith, a physician and the head of a medical unit, was himself on the verge of death with a roaring lung abscess. My father, being head of the first medical unit, had to manage him. Dr LS da Silva, the pathologist, with the permission of the local chief medical officer, Dr WA Balhetchet, drove an old ambulance to Sime Road Camp to secure this precious drug. Dr Chew administered the first penicillin injections and dramatically, Dr Smith's condition improved. After two weeks following the Japanese surrender, Dr Smith was flown to London to have the final definitive treatment – surgical resection of the residual abscess.

At that time, tuberculosis (TB) was rife; it was a scourge and the number one major killer. There were approximately 2,000 or more patients. As we had no drugs, we depended mainly on collapse therapy, bedrest, good nutrition and the "sanatorium regime". The first curative drug for TB was streptomycin, available here only in early 1946. Many patients were cured with streptomycin, but many also developed streptomycin resistance, until 1951 when we had another potent drug – isoniazid. This was a tremendous breakthrough.

When we had the Bacillus Calmette–Guérin (BCG) vaccine, the coverage of over 90% of our newborns saw a great reduction in meningitis, miliary TB, and TB of the bones and joints, especially in the young. But the mainstay of treatment was the standard drug regime of streptomycin, isoniazid and para-aminosalicylic acid which largely controlled the emergence of drug resistance. Sir John Crofton of Edinburgh, a good friend of Singapore physicians, did good research and was the first to show that two years of well-administered treatment could result in an almost 100% cure of TB. This was the regime TTSH adopted from the late 1950s.

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We should recognise at least two pioneer physicians for their contributions soon after the war. They are Dr BR Sreenivasan and my father, Dr Benjamin Chew. They were passionate about treating TB, the number one killer in those days. They linked up with grateful prisoners-of-war (POWs) who were just released, and local philanthropists like Mr Tan Chin Tuan and Mr Lee Kong Chian. Together, they formed the Singapore Anti-Tuberculosis Association (SATA). They also influenced members of the Rotary Club to donate the Rotary Clinic which became the centre of TB treatment and research at TTSH.

The eradication of small pox, poliomyelitis and other major infectious diseases was also most gratifying during the 1960s and 70s.

JQ: Prof, what were some of the changes that you oversaw as the deputy director of medical services?

CCH: One of the breakthroughs that I am very privileged to be involved in was when we agreed to introduce MMed examinations for family medicine (FM) in the early 90s. Many of our current FM specialists and GPs hold a MMed in FM.

Another breakthrough was the opening of the National University Hospital at the Kent Ridge Campus and the planning and restructuring of the hospitals and specialists centres from the 1980s.

I also had the privilege of persuading Dr FJ Jayaratam to set up a geriatric medicine unit in Singapore. Dr Jayaratnam was a general physician and the head of Medical Unit I at TTSH. I remember speaking to him for about two to three hours in this regard. After he visited the geriatric centres in Glasgow and Cardiff, he said, “Yes, Chin Hin, I will start but you have to give me two wards – one male and one female. Within the wards, I must have physiotherapy and occupational therapy facilities.” This was the beginning of geriatrics.

Later, he said, “I require the following registrars…” [*laughs*] So he trained Prof Philip Choo and A/Prof Pang Weng Sun, among others. They were the first geriatricians. It was good that we managed to start geriatric units in the other hospitals within a mere decade! It was like tent planting: first, it was in Changi General Hospital; then Alexandra Hospital, which later became Khoo Teck Puat Hospital, currently headed by A/Prof Pang Weng Sun. Prof Philip Choo is now the chairman of the National Healthcare Group. I think geriatrics is a very important and rewarding discipline, especially in the years to come.

The next discipline that I had an influence on was my own unit at TTSH. When Prof Feng Pao Hsii took over from me, he said, “You know, Chin Hin, I think we have to start a rheumatology unit.” So that’s how rheumatology came about here. He requested for a few officers, namely Fong Kok Yong, Boey Mee Leng, Chng Hiok Hee and Howe Hwee Siew. Both Dr Jayaratnam and Prof Feng had their offices in the Rotary Clinic.

Subspecialisation has been identified as a problem in the UK and US. Now, the US is trying to encourage specialists to take the internal medicine board as a foundation before they specialise. One good example we have is Prof John Wong. He is an internal medicine board specialist, but also accredited in oncology and haematology. Prof Paul Tambyah is another – he’s got American board in internal medicine followed by infectious diseases. So, I feel that a sound basis in the general disciplines is very important and I’m glad that we still emphasise this before specialisation.

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Terminal care was another preoccupation. I think this is very important as our population progressively ages. That's how the Advance Medical Directive came about through our recommendations. This also led towards end-of-life care planning and the discipline of palliative medicine. Perhaps we should have started palliative medicine even earlier, but credit should be given to Dr Cynthia Goh and her team for their role in the formation of the hospice movement. Initially, there was quite a lot of resistance in the building of hospices. In fact, Dover Park Hospice was to have been in Dover Road, but it caused a huge outcry as residents did not like the idea of having a hospice in the neighbourhood. The Ministry of Health acceded and moved Dover Park Hospice to the grounds of TTSH but kept its name.

Additionally, I was elated when Mr George Yeo asked me to be the first chairman of the National Medical Ethics Committee after my retirement. Though doctors have always taught medical ethics by the bedside, it was in a general and informal way. Thus, the National Medical Ethics Committee's first recommendation was to formalise ethical education. Thus, we now have the biomedical ethics centre in the National University of Singapore led by Prof Alastair Campbell, the first director.

Early years and the war years

JQ: Prof, where did you school at?

CCH: I was in Anglo-Chinese School (ACS) on Coleman Street. After the war, I was in Victoria School for a few years. Pre-war, we stayed in the doctor's quarters at Outram Road, between the present Alumni Medical Centre and the SGH forensic area. The bombs came suddenly in the early hours of 8 December 1941. The Sago Lane area in Chinatown had the most casualties and the Sepoy Lines General Hospital mortuary overflowed! It catered to at most 20 to 30 bodies, so almost a hundred had to be laid outside on the grassy slopes. At the age of 11, this was a very traumatic and horrendous experience.

Three days before Singapore surrendered, the Japanese cut off supplies from Johor to Singapore and Singapore had hardly any water. On 14 February 1942, the second last day before the surrender, we were shelled by the Japanese and lost medical students. The first was shelled here at TTSH and his body brought to SGH, while ten others died at the burial site near the College. Several others were injured. A memorial plaque is displayed at the College of Medicine Building.

Soon after, the Japanese gave directions for SGH staff and patients to move. Some of them, like Dr BR Sreenivasan, went to KKH, which also functioned as a general hospital. Most went to the Mental Hospital at Yio Chu Kang, the only place which could house the hundreds of patients from SGH. Seven or eight months later, these patients and staff were moved again, this time to TTSH. This was appreciated because TTSH was in a more centralised and accessible location. The occupation years were another horrific story as the Japanese were notorious for torture and atrocities.

The Young Men's Christian Association (YMCA) on Orchard Road was their torture chamber and victims included Mrs Elizabeth Choy and her husband. Mrs Choy managed the canteen opposite where we stayed on Jalan Tan Tock Seng. One day, both her and her husband were taken away to YMCA and brutally tortured for three to six months. She was accused of helping POWs from Sime Road by giving them supplies from her canteen when they were receiving treatment at the hospital. Our doctors also had to be very careful. Many exchanges occurred in the dark screening room. There

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were no facilities for filmed X-rays in those days. We had only fluoroscopy (screening), where patients were brought in to have their chest screened, since TB was rife. When POWs were brought in for screening, the doctors or radiographers, their eyes already adapted to the dark room, would pass them drugs or supplies that they could use in the camp at Sime Road. Despite this, many died of malnutrition and infectious diseases. When the Japanese discovered that Mrs Choy was distributing supplies, they tortured her and her husband. Fortunately, she survived, became a war heroine and later justly decorated by the British.

JQ: Were there any doctors who were tortured?

CCH: No, but some were almost caught. 15 Akyab Road was the doctors' residence occupied by six "bachelors". Some were true bachelors; some had their wives evacuated to India just before the Occupation, like Dr Clarence Smith and Dr LS da Silva. My father used to go there to get news through the radio, BBC News – an act punishable by death. Unlike most radios which could only get local news, they had one that received short-wave news which they listened to in the late evenings. One night, they spotted a spy, possibly Japanese, climbing up a coconut tree and looking into their quarters. Some of them went out and had a sing-song, with my father on the piano, distracting their chance of discovery. The spy eventually gave up and left without returning. If they had been caught, they would have been sent to YMCA. 15 Akyab Road was later my own family's residence from 1961 to 1992.

In those trying years, doctors lived on patients' goodwill, as staff members were paid worthless Japanese currency. Grateful patients brought eggs and poultry, while families reared chickens and grew vegetables in any available garden. The only worthwhile rations that the Japanese gave were some rice, bread, food coupons and cigarettes.

Aviation medicine

JQ: I remember that you were also heavily involved in the development of aviation medicine. Could you tell us more about it?

CCH: Aviation medicine came about at very short notice. In the late 1960s, we were told that British forces, including the Royal Air Force (RAF), were withdrawing. The then-director of civil aviation asked if the Health Ministry could form a civil aviation medical board to certify pilots. Two to three weeks were all we had after being given some gazetted documents and medical standards to study.

The TTSH medical director was asked by the DMS to be chairman of the first civil aviation medical board, with the four medical unit heads as deputy chairmen. For this, we paid three visits to the old Changi Hospital where the RAF physicians were stationed. They were the certifying authority. The three sessions were spent observing how pilots were examined and certified. None of us had any previous experience in aviation medicine.

We had to gather not only physicians, but also specialists especially in Ear, Nose and Throat (ENT) and ophthalmology. ENT then was headed by Dr Jerry Goh and ophthalmology by Dr Victor Yong. There were also neurologists, psychiatrists and cardiologists. Problem cases like those with hearing deficit had to be sent to the ENT. For the borderline cases, our ENT surgeons would sometimes have to be in flight to do live examinations. I remember on one such flight, Dr Jerry Goh came back pale-faced and nauseated because of air-sickness. Fortunately, these are nowadays done in simulators.

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We also had to have very strong reasons if we had to disqualify pilots. I was almost brought to court when I was chairman of the board when we disqualified a pilot, because he had fluctuating hypertension which became established and sustained. Pilots then were not allowed to have any drugs for treatment. He was in his mid-40s – still relatively young. Mr David Marshall, his lawyer, sent us a letter. The attorney-general's office had to defend our decision as we were all civil servants. We had expert reports from Dr Charles Toh, our cardiologist who agreed to fail him, and one or two others on our side. After studying the case, Mr Marshall (perhaps his last case before being called for our Foreign Service) told the pilot, "You don't have a case; you'd better accept the decision." Six months later, the pilot died on the squash court at Tanglin Club.

Personally speaking

JQ: What are some of your hobbies and pastimes?

CCH: Firstly, I am a committed Christian and I do some Bible study in my quiet moments. I also regularly update myself on new advances in medical literature and on healthcare matters. Due to my impaired larynx, I can't really speak for long now and have tendered apologies for most speaking engagements! However, a few months ago, the president of College of Family Physicians, Singapore, persuaded me to deliver the Sreenivasan Oration, and it was agreed for it to be a shorter lecture. I also used to collect stamps, but recently I have had less time for this. Photography was another pastime.

In my youth, I was active in sports and chess. In school, we were the first post-war chess champions of Singapore, winning the Lee Geok Eng Shield in 1949. Dr Lee Suan Yew was in our ACS team of six. He was playing the fourth or fifth board while I was on the second board. The team also comprised the late Drs Chee Chin Tiong and Jerry Goh, with Prof Lim Kok Ann as coach. Our opponents included teams from combined colleges, then the King Edward VII College of Medicine and Raffles College, and all the nine or ten adult clubs. My chess career ended soon after. In university, I continued playing cricket and hockey but gave up after graduation. My last hockey game was at the field at the College of Medicine Building in 1958 when we then had annual events where graduates competed against the undergraduates. After my retirement in 1992, golf became a satisfying physical pastime.

JQ: Prof, any last words for our colleagues?

CCH: Medical education is a lifelong process. Medicine is a calling, never a trade, and you must keep updating yourself. The title "doctor" is derived from the Latin word "docere" (to teach); thus, you have to continue teaching and imparting knowledge. Even in restructured hospitals, healthcare is now increasingly costly and doctors have a duty to be patient-centric, and to learn from peers, colleagues and often from students and patients. My students and juniors have given me a good measure of wisdom; some are now professors and leaders in their disciplines. Prof Chia Boon Lock was my medical officer and now, he's regarded as a doyen in cardiology. It's good to see students going forward, multiplying followers in themselves and teaching others. I'm sure our doctors will continue serving the sick and our fellow men with compassion, keeping with our Alumni motto: "Not to be ministered unto, but to minister." Medicine in Singapore will go forth to flourish.

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