



Having read the Autumn 2017 edition of BASEM today, I was impressed with the way Sports Medicine services have evolved in Singapore and with the quality of service delivered by Khoo Tect Puat Hospital.

They boast a full hospital-based Sports and Exercise Medicine Service (SEMS) for the public to be referred to and receive specialist care for their musculoskeletal and sports injuries and illness. Patients receive a specialist opinion by a full multidisciplinary Sports Medicine team, led by a Sport and Exercise Medicine Consultant. Then are then able to have any necessary investigation, intervention, and rehabilitation all in one department.

While this model does exist in the United Kingdom, it's no secret that specialist Sports Medicine services are sparse throughout the NHS. While a few hospital trusts across the UK employ Sport and Exercise Medicine Consultants (with only a handful being full-time) most doctors completing the SEM specialist training scheme programme are left without an NHS Consultant posts once they gain GMC specialist registration. In contrast, most major hospitals in Singapore have fully operational SEM departments, with multidisciplinary sports medicine input from a range of practitioners and rehabilitation services to match.

This raises the question, why are Sports Medicine services for the general public thriving in Singapore, whereas in the UK, most quality SEM care is reserved for the elite athlete or private patient. A logical explanation would be down to the difference in health care models between the two countries and government funding of services. However, there is perhaps a subtler reason for this disparity which may involve cultural attitudes towards health and fitness.

STRENGTHENING THE SINGAPORE CONNECTION:

A COMPARISON BETWEEN SPORTS MEDICINE SERVICES IN THE UK AND ASIA

Main image: Sports Hub Singapore
Below: BT40 - Autumn 2017





Changi Sports Medicine Centre



SMAS symposium 2018. Metabolic Conditions in Sport

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Thanks to the Travel Fellowship Bursary from BASEM, I was able to fund a 10-day trip to Singapore in May 2018 to visit various Sport Medicine departments across Singapore including Khoo Tect Puat Hospital, Changi Hospital and the Singapore Sports Hub. I also timed my visit with the Singapore Medical SMAS annual conference and a musculoskeletal ultrasound course. I wanted to find out why as a medical speciality, Sports Medicine was gaining the momentum in Singapore, and more importantly, whether the UK can learn anything from the Sports Medicine Model in Singapore to help develop our services.

Sports Medicine Association Singapore annual symposium and Academy for clinical and Emergency Sonography (AACES)

I was fortunate to attend The Sports Medicine Association Singapore (SMAS) annual symposium which this year was themed 'Metabolic and Endocrine Conditions in Sport' with just under 200 delegates visiting for a one-day symposium, there were two main streams, one dedicated for members of the public and the other scientific stream aimed at allied health care professionals. Speakers were of high calibre from sport institutes and clinics around the world.

Session titles included;

- Sports nutrition and performance
- Nutritional deficiencies in sport
- Diabetes in sport
- Endocrine conditions in sport

There were also practical workshops covering knee injections and pitch-side emergency care. I was also able to attend a pre-symposium training day on Musculoskeletal Ultrasound run by the Academy for Clinical and Emergency Sonography (AACES) where experienced Radiologists and Sports Physicians provided lectures and practical demonstrations for around 20 delegates in upper and lower limb musculoskeletal sonography.

Although aimed as an introductory course, the hands-on teaching was of a high standard and there were opportunities to

develop new skills and techniques even for more advanced practitioners.

The SMAS is now recognised as the professional body for all individuals working within the field of Sports and Exercise Medicine. Although a comparatively small in comparison to our own British Association of Sport and Exercise Medicine, the ongoing enthusiasm and unity between SMAS members and the integrated approach within the organisation has seen the successful integration of Sport Medicine into Singapore's public health system.

Khoo Tect Puat Hospital

Situated in northern Singapore, KTPH Sports Medicine Centre specialises in the diagnosis, treatment and management of acute and chronic musculoskeletal and exercise-related conditions and sports injuries, as well as health problems relating to sports and exercise, through a coordinated team approach to sports medicine.

The multidisciplinary team consisting of 5 sports medicine physicians, 3 orthopaedic sports surgeons, 6 sports physiotherapists, 1 podiatrists and 1 acupuncturist. The unit is split into subsidised and private patients. Based on the 6th floor overlooking the beautiful hospital gardens and lake, the centre takes up a sizable space over 3,000 square foot in total. Combining public and private wings, there are 6 consulting rooms, 4 physiotherapy assessment rooms, 1 ultrasound and ESWT room and 2 acupuncture treatment

rooms and a large physio treatment area and rehabilitation gym. The service was previously commissioned by the orthopaedic department, but now has its own independent funding stream and tariff system from the hospital.

Patient referrals are received from;

- Singapore armed forces
- Polyclinics. These patients are subsidised through one of the government schemes.
- Intra-hospital/inter-hospital referral e.g. emergency department.
- Patients with private insurer.

Private patients get appointments within 5 days from point of referral, and subsidised patients within 2 weeks. True to its name as a Sports Medicine clinic, there is a holistic approach to patient care at KTPH, and all of the patients' sports medicine needs are met. This includes nutritional advice from qualified sports dieticians and pre-participation physical examination and certification of athletes, prior to the start of their competitive season or training activity.

Changi Sports Medicine Centre

I also was fortunate to spend a day at the Changi Sports Medicine Centre. Established in 2002, Changi Sports Medicine Centre (CSMC) is the largest multidisciplinary sports medicine centre in Singapore. In addition to musculoskeletal services, they also provide exercise testing and customised exercise prescription for those with medical conditions, such as coronary artery disease, hypertension, dyslipidemia, diabetes, and obesity, as well as cardio-pulmonary exercise testing.

The Singapore Sport Hub

In the last few years, the Physical Education syllabus in schools has also been boosted. Swimmer, Joseph Schooling's gold medal win at the 2016 Olympics rallied the nation and boosted public participation in sport. The government has created a road map for "using sport as a strategy for Singaporeans to have a healthier and better life through the impactful experience of Sport" in the form of Vision 2030. The national interest gain further momentum from the 2017 South East Asia Games in Kuala Lumpur, where Singapore delivered a record-breaking overseas performance with 57 gold, 58 silver and 73 bronze medals.

Established under a 25-year long-term Public-Private Partnership agreement



KTPH hospital



KTPH hospital

between Sport Singapore and Sports Hub Pte Ltd, the Singapore Sports Hub is one of the largest sporting infrastructure projects in the world. It plays a critical role in building a sustainable and competitive advantage for Singapore's sports and entertainment tourism industry. It also serves as a catalyst for the emergence of sports in Singapore and helps Singaporeans to live better through sports.

The Singapore Sports Hub is a state-of-the-art, fully integrated sports, entertainment and lifestyle hub. Its vision is "to be the region's premier sports, entertainment

and lifestyle destination". Located on a 35-hectare site within the city at Kallang, it features a unique cluster of world-class facilities that includes the following:

- 55,000-capacity National Stadium with a retractable roof
- 12,000-capacity Singapore Indoor Stadium
- 6,000-capacity OCBC Aquatic Centre
- 3,000-capacity OCBC Arena
- Water Sports Centre
- 41,000 sq m Kallang Wave Mall which features an indoor climbing wall
- Other amenities such as museums and libraries





AACES ultrasound course delegates



Rehabilitation services with a view at KTPH



Patient rehabilitating in the KTPH gymnasium

Since opening in June 2014, the Singapore Sports Hub has established itself as the region's premier destination of choice for sports, entertainment and lifestyle events. The Sports Hub aims to attract international sports events and enable Singaporeans to be inspired by world-class athletes. An example of is the Sports Hub currently hosting the Women's Association Tennis Tour Season Finals.

It is easy to draw comparisons between the Sports Hub and the Queen Elizabeth Olympic Park, London. The aim of the Olympic Park and the London Legacy Development Corporation was to make the most of a 'once-in-a-lifetime- opportunity' from the London 2012 games. The intention was to develop a dynamic new heart for London, creating opportunities for local people and driving innovation and growth. Sport England's figures show that between October 2014 and March 2015, 15.5 million people did some kind of sport in the UK once a week. That figure hit a high of 15.9 million in October 2012 in the wake of the London Games, leading to confident claims that Britain could deliver where no previous Olympics had done and inspire a lasting uplift in participation. However, by 2015, the trend was firmly in the wrong direction with widespread fears that Britain is becoming a two-tier sporting nation, with the figures showing that lower socio-economic groups are doing less and less sport.

Although both the Singapore Sports Hub and Olympic Park are hugely impressive structures and symbols for the nation, time will tell whether Singapore faces similar problems in engaging mass participation for sport. With a total population of only £5.6 million Singapore has a much smaller nation to inspire. Furthermore, with a GDP per capita of \$53 at the time of writing (in contrast to \$37 in the UK) the Singapore government is attracting a relatively wealthier population towards activity. With 76.1% of the population Singaporean population being Chinese, holistic and non-interventional approaches to treatment musculoskeletal injury are embed into patient culture, and Alternative Chinese Medicine has a large part to play in the management of musculoskeletal conditions.

The healthcare system in Singapore

The political and financial structure of a country's healthcare system will play a large part in dictating the accessibility and availability of the services it provides.



Front entrance to Sports Medicine Department at KTPH

We are all familiar with the contrast of fully privatised healthcare systems (as in the USA) to our own publicly funded one. Singapore (along with many European countries and Australia) have a heavily government subsidised system, but not free at the point of delivery as is the case in the NHS.

The government of Singapore has planned and continues to develop and maintain the nation's public health care system. It regulates both public and private health insurance in the country. The health care system is administered by the Ministry of Health, which has responsibility for assessing health needs and for planning and delivering services through networks of health and hospital facilities. Coverage is funded through a combination of government subsidies (from general tax revenue), multilayered health care financing schemes, and private individual savings, all administered at the national level. National capital expenditures are set in the government's annual budget.

The first tier of protection comprises government subsidies of up to 80% of the total cost of care provided in public hospitals and primary care polyclinics (equivalent to General Practice in the UK). This is supported by a group of savings and insurance programs which plays a critical role in maintaining the public's health and welfare. The main insurance programme Medisave is a mandatory medical savings program that requires workers to contribute a percentage of their wages to a personal account, with a matching contribution from employers. Funds in the account are used, under strict guidelines, to pay for health services such as hospitalisation, day surgery and certain

outpatient expenses, including Sports Medicine Services.

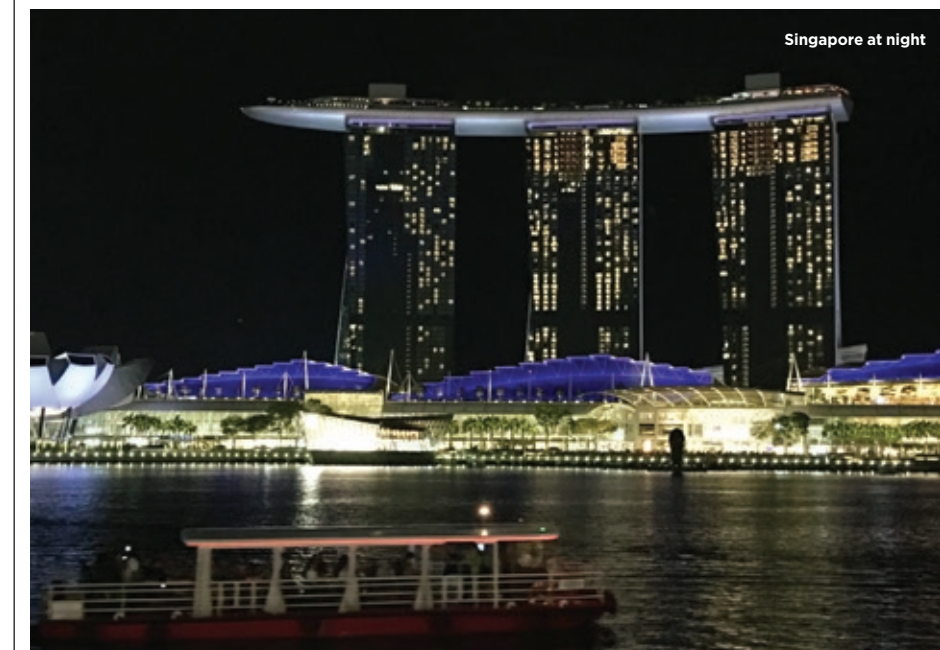
This way of delivering health care may not sit comfortably with NHS constitution purists, as the medical savings programme may have the effect of disincentivising patients to overuse certain modalities of health care (such as elective orthopaedic procedures) to maintain the funds in their Medisave account. In any case, the promotion of physical activity and rehabilitation services appeals to not only hospital managers as the cost of treatment per patient is reduced, but also appeals to the patient who is incentivised to use non-operative, inexpensive, evidence-based methods of treatment for musculoskeletal conditions.

Here in the UK, although it is possible to demonstrate to hospital trusts and

commissioning groups the cost benefit of good musculoskeletal care, we are not able to financially incentivise our patients in the same way. For better or worse, this level of choice perhaps changes patient expectations about their care pathway (e.g. opting for knee replacement rather than ongoing rehabilitation).

Final thoughts

On reflection, the success of Sports Medicine as a specialist in Singapore is a cumulative result of many factors including the structure of the healthcare system, government incentives and population size and demographics. The Sports Medicine practitioner community is also much smaller than in the UK, which perhaps makes it a more cohesive network of professionals (there are less than 20 Sports Medicine Consultants and physician trainees in the entire country). To ensure the speciality continues to thrive in the UK, innovative solutions need to found. As with most specialities, the greatest impact on the population can be made in the community setting. There is perhaps where SEM practitioners need to focus their efforts. It seems unlikely that we will ever be able to deliver as comprehensive a hospital-based SEM service as in Singapore. But the primary, community and social care provision in the UK is unparalleled by anywhere else in the world. With 60% of the NHS budget going to Clinical Commissioning Groups, it is here that SEM and musculoskeletal practitioners need to be demonstrating what the speciality can offer, by means of better quality patient care and financial savings.



Singapore at night