GOOD MORNING.

INTRODUCTION AND WELCOME

1. Thank you for inviting me to the Asia Pacific Military Health Exchange (APMHE) 2017. Let me wish all participants to the 2017 APMHE a very warm welcome. This is the 27th year that military medical services from the Asia-Pacific region, coming together to share experiences and expertise. I am certain this meeting will raise standards of professionalism all round and Singapore is honoured to co-host the APMHE with the United States Pacific Command.

POSITIVE CONTRIBUTIONS FROM MILITARY MEDICINE TO SOCIETY

2. This history of medical care for combatants is a rich and illustrious one and it dates back to antiquity. For as long as tribes and nations fought each other, military doctors and medics, like yourself, had to treat the wounded in its aftermath and at times even attempt heroic efforts to save the soldier’s life and limb. It is a universal feature. In the East, for example, we have from Romance of the Three Kingdoms (CE 219), the part myth, part historic account, of Hua Tuo and...
Guan Yu. Many of you would be familiar with that story. Hua Tuo was a physician who treated this famous general Guan Yu, who was struck with a poisoned arrow. Hua Tuo is credited by historical accounts, and this is an amazing account, to have first used anaesthesia more than two thousand years ago, because it was purported that he discovered the properties of the cannabis plant then. The supposed myth is that Guan Yu not only refusing the anaesthesia offered, but continued to play weiqi without flinching throughout the procedure while the good surgeon cut the poisoned flesh and scraped the poison from the bone. In the western world too, much had been learnt about amputations and the treatment of wounds by doctors on the battlefield which enriched the corpus of medical knowledge to improve treatments in civilian life. But we have to be truthful that doctors on the battlefield did not always get it right. You remember the account of Greek surgeon Galen in 2nd Century AD who observed that soldiers got better when abscesses broke and pus extruded, and thus the dictum “laudable pus”. For centuries after this, doctors misinterpreted this and attempted to produce pus, even when none existed by pouring oil onto wounds, thus increasing infection rates and death.

3. But overall, the march of military medicine has added to the progress of mainstream medicine and indeed is in itself a sub-specialty. We need to be mindful that military medicine is a sub-specialty and invest adequately to build the capabilities of military medicine practitioners because these investments will pay off in better treatment not only for soldiers but civilians. That divide between military and civilian care is artificial and spurious. Progress in military medicine not only applies to the treatment of individuals but, as one can imagine, when dealing with large numbers, to the organisation in better delivery of medical care. Today we take for granted, for example, ambulances, as most national healthcare systems for civilians, have ambulances. But ambulances were first introduced in the battlefield – where vehicles dedicated to the transport of injured persons were first deployed near the end of the 15th century in the wars in Spain. History has shown that when care for soldiers is improved, better care for civilians will follow and vice versa. The two fields are mutually reinforcing.

4. This truism holds in the 21st century. In responding to modern security challenges today, military medical practitioners like you here, lead and are experts in areas such as bio-terrorism, control of pandemics; humanitarian aid in natural disasters as well as man-made disasters of radiological or chemical contamination. You are experts in care and rehabilitation of amputees; emergency care for trauma patients; aeromedical and hyperbaric medicine, to name a few. Military medicine is a sub-specialty in its own right and the whole society needs that expertise.

5. This is true in Singapore, as it is around the world. During the SARS (Severe Acute Respiratory Syndrome) outbreak in 2003, it was Singapore Armed Forces (SAF) personnel that were mobilised. 250 personnel assisted the Ministry of Health in contact tracing, while SAF medics were deployed at Changi Airport to screen air travellers entering Singapore.

6. To deal with SARS, our defence scientists from the Defence Science Organisation also developed the Infrared Fever Screening Systems based on military infra-red technology. This was key to allow temperature screening on a mass scale and provided assurance so that businesses
and life in general could resume. It was the first time it was deployed on a mass scale. Today, it is used by many hospitals and border control points in Singapore and across the world to quickly screen large groups of people. This is but one vivid example of how military medicine can have a large impact on the entire society. In 2009, faced with the H1N1 Influenza outbreak, staff from the SAF Biodefence Centre were first to develop a novel method of using ring prophylaxis with Tamiflu to limit the spread of the virus within SAF camps. They reported their work in the New England Journal of Medicine in 2010.

7. Against terrorism too, it has been our SAF medical units that have been deployed regularly. Between 2008 and 2011, five medical teams, one dental team and one surgical team were in Afghanistan as part of the international efforts against Al Qaeda. I visited the hospital in Oruzgan which was manned by Americans, Australians as well as Singaporean medical teams and I spoke to some of these medics on their return, who shared with me that it was a life changing experience – as many of your men and women in the medical corps must have shared with you – as they dealt with injuries of IED (Improvised Explosive Device) casualties in local civilian adults and children. In Bamiyan, where we were stationed with New Zealanders, long lines formed as professional dental care was a rare provision. Later this year, I hope to visit our SAF medical team who will be deployed in Iraq to join the multinational coalition combating the terrorist group, ISIS (Islamic State of Iraq and Syria).

8. At home, when a terrorist attack should occur, I think many of you seated here will know that it will be your medical community that will be mobilised. For us, the SAF and Home Team fully understand that they will be called upon as first responders. This is why every exercise conducted to deal with terrorist threats includes medical practitioners. Last year, in October, the SAF and our Home Team conducted an island-wide exercise, involving 3,200 personnel, to test and validate the multi-agency response to a terrorist attack. The Medical Corps was an essential component of that exercise.

9. For Humanitarian Assistance and Disaster Relief (HADR), whether at home or abroad, it will be the military medical corps that will also be activated as first responders. In the last decade alone, the SAF has been activated three times – for earthquakes in Indonesia in 2009, Christchurch in 2011 and Nepal in 2015. For the 2009 Indonesian earthquake, the SAF deployed a 54-man medical team that in their two weeks of operations in Pariaman and Koto Bangko, attended to more than 1,100 accident and emergency cases, and performed over 100 surgeries. During the 2015 Nepal earthquake, SAF’s medical teams worked alongside our doctors and nurses from the Singapore’s Ministry of Health, and an eight-man medical team from the Royal Brunei Armed Forces. These teams treated more than 2,000 patients for injuries and illnesses in Gokarna. Singapore’s Changi Regional HADR Coordination Centre (RHCC) also provided the OPERA system to help other military teams there have a common situation picture.

10. What we have learnt as we worked together for HADR missions, (is that) military medicine communities often act as a bridge to build relations and trust among militaries. Take this meeting for example, more than 20 countries all seated here, with a common theme, and a common
operating system. Let’s face it, not all of us have the same alignment of philosophies but here you are sharing expertise. It is a great bridge and bond-builder. In 2013, the inaugural ASEAN Defence Ministers’ Meeting-Plus HADR and Military Medicine Exercise organised by Singapore, Japan, Vietnam and China brought more than 3,000 military participants from 18 countries closer together as they jointly developed and executed exercise objectives. I remember the exercise because all countries sent assets, and I remember China sending many assets and many troops so I was particularly thankful to China for doing that. After 2013, it became the working model for both Experts’ Working Groups to combine their efforts to conduct ground exercises. In that exercise, there were cross-deck exchanges and medical troops from different countries sharing scenarios and implementing the same plans.

11. Closer ties between military and civilian organisations are also a result of HADR efforts. In January 2017, the SAF/Changi RHCC worked with the Armed Forces of the Philippines and the US Centre for Excellence in Disaster Management and Humanitarian Assistance to co-organise a multinational HADR exercise, Exercise Coordinated Response. It brought together 18 militaries from across the Asia-Pacific and Europe, as well as observers from 12 civilian organisations which included the United Nations Office for the Coordination of Humanitarian Affairs, the World Food Programme, and US Agency for International Development. Stronger linkages have resulted so that we can better respond to humanitarian crises in the Asia-Pacific.

12. I like to highlight two areas of growing importance, in Singapore at least, where the Medical Corps must also provide care and expertise in Singapore. The Medical Corps here must respond decisively to the reduction in manpower supply – a reduction of a third from 2030 for the SAF. Some of you may be facing the same constraints. Because of our manpower constraints, each soldier is valuable, whose contributions need to be optimised and put to full use for the nation’s defence. In this regard, many of our platforms can be operated more simply aided by automation. To respond to this, the SAF Medical Corps is actively reviewing the vocation requirements that will increase flexibility and allow more soldiers to be deployed to each vocation. The review is expected to be completed soon and the SAF will implement it progressively over the next few years. The Centre of Excellence for Soldier Performance (CESP) is another example that marks this paradigm shift to enhancing ability and performance, not just treatment of combatants in the battlefield but enhancement of performance and health wellness and maximum optimisation of performance. This CESP allows our medical professionals to work with the training community and sports scientists to increase the potential and enhance performance of every soldier.

13. The second challenge is also in response to the declining manpower. The medical needs of Singaporeans will grow because we are an ageing population. I think Singapore is not alone in that problem. Many of you face (the problem of) ageing populations. Recently, the Ministry of Home Affairs (MHA) reported that there is expected to be a 6% annual growth of calls for ambulances and emergency treatments – compounded, 6% every year. That is a trend. We do not have a 6% growth in manpower; in fact we have a reduction. Therefore MHA expressed the need to expand ambulance fleets to meet this need. The SAF’s primary mission is to defend the nation against external threats, but in the area of emergency care, using SAF medics to respond to civilian
medical emergencies is synergistic and mutually helpful. It will meet the growing demand as well as allow our medics to keep their skills current, to better respond in times of military crisis. The SAF has therefore, as part of the ongoing partnership between SAF and Singapore Civil Defence Force (SCDF), offered SAF medics to be deployed on SCDF ambulances – they are the ones that respond to our civilian medical emergencies. These SAF medics will of course meet all certified requirements that SCDF medics on ambulances currently possess. The pilot project will start at the end of this year.

Conclusion

14. Ladies and gentlemen, distinguished guests, let me conclude. When military medicine communities from different countries collaborate and cooperate, as they do in this APMHE, when they share experiences and expertise, I think our entire countries and residents benefit, not only soldiers. Let me underscore this truism with a example. In 2012, one of our sailors met with a ship accident that unfortunately severed three of his limbs. He lost both lower limbs and his left arm. Military Expert 2 Jason Chee survived because of the prompt and adequate medical care given at the scene of the accident by SAF medics and doctors there. I visited Jason when he was brought to Changi General Hospital and the doctors at that point, were not sure he would survive. But Jason Chee survived. After his near miraculous recovery, Jason wanted to walk again, and the SAF wanted to help him make it happen. Here, let me express our deep thanks to the US military for their help in sharing their expertise on prosthetics and rehabilitation. They deployed several military medical officers, including a rehabilitation specialist, and a prosthetist from the Walter Reed National Military Centre, specialising in the treatment of injured veterans and amputees. They performed the fitting for the prosthetic lower limbs that Jason Chee wanted. Three times a week, Jason underwent rehabilitation at Tan Tock Seng Hospital (TTSH), where he walked with his prosthetic limbs for about 100m. Our appreciation too, to Adjunct Associate Professor Tjan Soon Yin, head of TTSH’s Rehabilitation Centre and his team, who oversaw Jason’s progress and coordinated with the physiotherapists, occupational therapists and prosthetists involved in Jason’s recovery, as well as the team at Changi General Hospital who took care of Jason in the aftermath of the incident. These events motivated Jason to even greater things and he went on to win gold medals in table tennis tournaments. Quite a story and you were part of it. It illustrates and underscores that when there is progress in military medicine, these advances extend into civilian care as well.

15. At this APMHE, I hope you will have a fulfilling and meaningful time sharing experiences and exchanging professional knowledge and insights. It is now my pleasure to declare the Asia Pacific Military Health Exchange 2017 open.

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