



Medics and doctors providing medical support at the finishing line during last year's Army Half Marathon (AHM)

Running, Home Safely

Text and photos by Dr Clive Tan

PHEIDIPPIDES, a Greek messenger who ran from Marathon to Athens around 490 BC to announce a battle victory, died shortly after delivering his message. This story inspired the advent of a road race called the marathon, which was inaugurated during the first modern Olympic Games held in Athens in 1896. Since the 1908 Olympics in London, marathons have been standardised at 42.195 kilometres, roughly the distance from Marathon to Athens.

Running as a sport is ubiquitous – people start running in primary school (baton relays), in secondary school (cross-country runs), during National Service (2.4-kilometre runs), and so on. People run for many reasons – to keep fit, as a group activity, or for recreation. Besides being beneficial to the biology and physiology of the human body, running is probably one of the most convenient forms of exercise for many working adults in Singapore as it can be done anytime, anywhere.

As more people in Singapore embrace a healthier lifestyle, participation in running events has also risen. A quick look at Singapore's running calendar shows that there are over 60 running events annually – that's more than one per week on average. There has been a steady growth of these mass running events in recent years. These events have seen

healthy participation, and in some cases, oversubscription and "sold-out" registration within days of their launch (eg, the Safari Zoo Run in 2013).

Reducing risk of injury

These mass participation endurance runs feature a mix of seasoned and amateur runners, with a small number of "first-timers". Like any sport, running has its risks for morbidity (like injury, strains and sprains) and, in rare and unfortunate cases, mortality. While injury can affect everyone, amateurs and first-timers are known to be at higher risk.

So what can organisers and participants do to decrease the latter's risk for injury? For a start, there must be increased education and awareness of sports safety. Running communities and race organisers must play an active role in this regard. In the military, many full-time National Servicemen (NSFs) are first-timers attempting the annual Army Half Marathon. Once they are certified by the medical classification system as fit to take part in the race, they must complete a series of increasingly challenging distances as part of a regulated build-up training programme. Trainers also educate the participants on the biophysics and physiology of long-distance running, in addition to injury prevention tips.

Education and increased awareness of sports safety will help runners with injury prevention. However, we know that when we repeat a process many times, no matter how safe the process is (or is supposed to be), incidents can still occur. Seasoned runners can still sustain injuries, so being experienced should not lull one into a sense of complacency. For mass participation endurance runs, this risk needs to be multiplied by the number of participants.

It is necessary for event organisers to have an accompanying medical support plan congruent with the risk assessment, to manage runners who suffer injuries during the race. This can range from a basic route mapping to decide where to station the first aid personnel, to a complex plan that takes into account mass casualty situations and detailed ambulance evacuation routes. The main aim of the support plan is to improve access to pre-hospital care, so that severe casualties can receive appropriate medical treatment and be promptly evacuated to hospital, for a higher chance of survival. Meanwhile, participants with light injuries such as abrasions and lacerations can receive treatment on-site by nurses or paramedics, hence avoiding the need to visit the emergency department.

The cost of the medical support plan to the organisers is arguably elastic, depending on the risk assessment and risk appetite. In order not to transfer the cost to runners and price them out of participating, organisers may opt for a basic medical support plan which leverages on the national emergency medical services system. The process of working through the medical support plan itself would have raised their awareness of what needs to be done in a medical emergency, and advance notice would have been given to the

Singapore Civil Defence Force and restructured hospitals nearby. A basic plan is better than no plan.

Current situation in Singapore

So what is the situation in Singapore now? Presently, there is no legislation regulating the organisation of mass participation endurance running events. This means that anyone or any company can hold a running event for 50,000 as long as they can get the Land Transport Authority and Traffic Police's approval for road closures. Most event organisers are able to manage the general business aspects of these events (like marketing, logistics and finance), but they may not have sufficient knowledge and expertise in more technical areas, such as safety and medical support, to address them adequately. While there are firms in Singapore offering medical coverage for such events, there is currently no accreditation programme or national regulations that these companies should subscribe and adhere to respectively.

To develop Singapore into a regional sporting hub, there has to be increased awareness of sports safety, and better governance and legislation regarding the organisation of mass participation sporting events and their requisite medical support. Until then, emergency department doctors working in restructured hospitals will just have to do their best when they receive casualties from these events. ■



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Layout of medical support area at the AHM 2013 finishing line