

Do More Than Wait: Stryker prepares organisations with AED awareness

Cardiac arrests are the highest cause of death in Malaysia with a frightening less than 1% survival rate¹. This has been highly related to the delay of victims receiving first-aid treatment due to lack of awareness among the society.

As Malaysians often spend most of their day at work, it is vital for every workplace to be equipped with necessary devices for first-aid, especially automated external defibrillators (AED) in preparation of cardiac arrests.

Automated external defibrillator (AED) is a life-saving device that can analyse heart rhythm and deliver a shock to restore the normal heart rhythm while waiting for treatment by medical personnels.

Stryker, a global medical technology company that offers innovative healthcare products and services, emphasises the importance of having accessible AEDs in your workplace.

While employers can contact 999 for assistance during an emergency, many factors hinder the arrival of an ambulance - these include traffic jams, the workplace location which may be at higher floors in a building and more. In fact, just calling the emergency 999 number will already take up a few minutes.

According to the Outcomes for out-of-hospital cardiac arrests across 7 countries in Asia: The Pan Asian Resuscitation Outcomes Study (PAROS) article by the National Library of Medicine, the emergency team in Malaysia requires 18 minutes to arrive².

This is a little too late to rescue SCA patients as they need to receive treatment within minutes to prevent death or permanent brain damage due to the lack of supply of oxygen-rich blood³.

The misconception of businesses towards AEDs

While AEDs are important, the device is not mandated to be installed at public facilities such as workplaces as an essential item to save lives.

Many businesses deem AEDs unnecessary due to a deep-rooted mindset that medical conditions such as SCA should solely be treated by the emergency response team, and AEDs should be handled by well-trained and certified professionals only.

Stryker offers a range of AEDs that are designed specifically for use in public areas. These devices are lightweight, highly portable and can be easily transported while being fitted into constrained spaces. Stryker's HeartSine samaritan 500P AED also offers integrated real-time CPR feedback with easy-to-understand visual and voice prompts, guiding the rescuers through the entire first-aid process by providing specific feedback.

While the instructions are easily understood, Stryker encourages employees to be trained in first-aid and build confidence in handling AEDs so that they will be prepared if they had to deal with a SCA case in their workplace.

It is important to consider where to store AEDs as they need to be accessible when in an SCA emergency. This includes knowing where the AED is kept, not locking the AED in a safe, and placing the AED at visible, accessible locations so employees can reach it quickly in an emergency.

Bracing through working hazards

In Malaysia, heart attack is the number one cause of death⁴. Based on the 2021 data from the **Malaysian Statistics Department**, 18,515 people died of coronary artery disease. This means 50 Malaysians died every day from heart attacks last year⁴.

When someone has a heart attack, he or she may experience cardiac arrest where the heart stops beating normally (or regularly) or completely stops beating. In such cases, immediate cardiopulmonary resuscitation (CPR) plays a vital role in increasing the victim's chances of survival. On top of this, early delivery of an electric shock from a defibrillator could increase the survival rate to as high as 75%⁵.

In a nutshell, having a portable, life-saving device that could analyse and advise the delivery of defibrillation at public places could give a chance of life for those who are suffering from sudden cardiac arrest (SCA). Nevertheless, such machines' availability is limited.

A prolific consultant emergency physician from a local hospital believes the importance of placing AEDs at work and public places as this shall be needed within 10 minutes in order to increase the survival rate of the SCA patient effectively.

"For every 1 minute delay of providing the shock for someone who requires it in sudden cardiac arrests, the chance of survival reduces by 10%⁶. Thus, by 10 minutes, the survivability is zero."

He stresses that SCA can happen anywhere - at workplaces, shopping malls, mosques, churches, temples, gymnasiums, stadiums, petrol stations and more. According to him, although first-aid-kits are generally helpful to treat minor injuries, the medications provided are not able to cater for critical emergencies such as SCA.

With that in mind, employers should include AEDs on top of their first-aid-kits as one of the essential life-saving devices.

Safety at the workplace

Employees are the biggest asset of a company. It is of greater responsibility for employers to provide a conducive working environment including access to adequate medical assistance and equipment.

While employers should be aware of the overall employee wellbeing, establishing a workplace safety system that encourages employees taking on an active role in providing input and feedback helps understand their different needs. Following this, employers can take steps to evaluate existing conditions and correct them periodically to ensure the needs of the employees are met. This can include identifying poor procedures when dealing with sudden emergency cases that mitigate future incidents.

Programs like check-ups and annual screenings for employees can be encouraged to identify health concerns. Additionally, focusing on different smaller segments like productivity plans to aid employees' general wellbeing can be beneficial in the long run. This can range from encouraging

movements in the workplace for employees to get moving while collaborating with one another and forming fitness groups amongst employees to take on light lunchtime or after-work activities.

Linking the 'Chain of Survival'

When cardiac arrest happens, cardiopulmonary resuscitation (CPR) should be performed immediately. Chest compressions during CPR artificially pumps the heart so that the blood that carries the oxygen would continue to flow to the brain and the rest of the body⁷.

"If there is no blood going to the brain in four minutes, the brain starts to die⁸. This means an assured death if no CPR is delivered in that window of time," he reiterated further.

However, he explains that CPR alone does not guarantee survival of SCA patients due to irregular heartbeats, and that is where AEDs come in handy.

"It is advisable that an AED is used following CPR to help restore the heart to the normal rhythm, thus increasing chances of survival while awaiting the emergency response team to arrive."

"The basic life support of CPR and AED are two important links that form the 'Chain of Survival' links according to the American Heart Association. These 'links' are required to increase the chances of survival of a SCA patient before an emergency response team arrives," he says.

Employers are encouraged to conduct CPR and AED training for their employees to build confidence among them to provide these when they witness sudden cardiac arrest.

Recently, the Minister of Health, Khairy Jamaluddin announced that the Malaysian government shall be making it mandatory for AEDs to be made available at public facilities by 2025⁹.

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