Resuscitation Council of Hong Kong

Resuscitation Council of Hong Kong (2024)

Position paper: Promoting the best outcomes of citizens with chronic health conditions and unhealthy lifestyles from sudden cardiac arrest

Sudden cardiac arrest is a serious condition when the heart stops pumping. Survival rate declines rapidly at a rate of 10% per minute.[1] In Hong Kong, the incidence of out-of-hospital cardiac arrest are 72 and 5.37 per 100,000 person-years in adult and paediatric populations respectively.[2][3]

People with chronic health conditions, which include coronary heart diseases, obesity, hypertension, diabetes, heart failure, arrhythmia and stroke, are more likely to suffer from sudden cardiac arrest.[4][5] People with multiple comorbidities are associated with poor survival after cardiac arrest.[6][7] Furthermore, smoking, excessive alcohol drinking and illicit drug use are associated with sudden cardiac arrest.[8][9]

The American Heart Association outlines the chain of survival in the management of out-of-hospital cardiac arrest and highlights that timely recognition, Cardio-Pulmonary Resuscitation (CPR) and defibrillation are critical to the survival of out-of-hospital cardiac arrest.[10]

The Resuscitation Council of Hong Kong recommends the following strategies to improve the survival of out-of-hospital cardiac arrest:-

1. **Increase the awareness of warning signs of sudden cardiac arrest**

   Educate the public that chest pain and difficulty in breathing are warning signs of sudden cardiac arrest, but only one-fifth of people acted upon in a previous study.[11] Timely medical care enables thorough assessment and treatment.

2. **Encourage CPR and Automated External Defibrillator (AED) training**

   Encourage the public to learn CPR and AED, especially the family members and carers of those people with chronic health conditions because nearly half of the sudden cardiac arrest occur at home.[2][3] Two local studies reported low training rates in first aid and CPR (21%- 34.2%), use of an AED (14.7%) and had poor CPR knowledge;[12][13] but for those who received training, they were more willing to attempt CPR and use of an AED if needed.[12][13] Two local studies demonstrated an improved survival rates if bystander CPR and AED were applied timely.[14][15]

3. Incorporate CPR and AED training into formal school curriculum

Young children can learn how to assess for consciousness and normal breathing at age of 4 and perform chest compressions at age 12 or above.[16][17] Adolescents who received CPR training had a more positive attitude to CPR training.[18]

A local survey reported that only one-third of the secondary school in Hong Kong provide CPR training,[19] but put it in the formal curriculum will make it sustainable and greatly increase the available persons trained to perform bystanders CPR, especially to their family members. The training promotes a sense of caring culture and social responsibility in the community to those in need.

4. **Address the concerns and issues regarding CPR and use of AED**

Fear of legal consequence is identified as a barrier to offer help to citizens with cardiac arrest.[20][21] Currently, Hong Kong does not have Good Samaritan Law to protect volunteer rescuers from liability when providing first aid,[22] but were viewed as necessary from the public.[23] Exploring the applicability of Good Samaritan Law will alleviate the concerns from the public.

5. Increase the availability and accessibility of AED

There is good evidence to support Public Access Defibrillation on the cardiac arrest survival.[24][25] A thoroughly planned Public Access Defibrillation program with strategic AED site placement in public areas will improve the availability of AED. Promoting the “AED Anywhere for Anyone” and the Centralized AED Registry for Emergency (CARE) online platform established by the Hong Kong Fire Services Department will improve the information of AED locations and subsequently the accessibility of AED in the public.[26]

6. Promote a healthy lifestyle

Promote a healthy lifestyle with regular exercise and consumes balanced diet. Say no to tobacco, alcohol and drugs.[27]

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Reference

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