

## Sudden cardiac death

### ABSTRACT

Sudden cardiac death (SCD) continues to be a major health issue in many countries including Malaysia due to its large magnitude in all-cause mortality as well as the emotional and socioeconomic impact of the deceased leaving the love ones behind in an abrupt manner. Data in Malaysia shows that the majority of sudden natural deaths are due to sudden cardiac death and are in the productive age group of 41 to 50 years. A study in Germany pointed out that about 90% people who died of SCD actually had warning signs such as chest pain, breathlessness, nausea, vomiting, dizziness and fainting before they collapsed. The majority belonged to the high-risk group for SCD having had previous medical histories including coronary artery disease, cardiomyopathies, valvular heart disease, congenital heart disease, underlying electrophysiological abnormalities or are taking drugs which are capable of provoking ventricular tachyarrhythmias. The key step is to define a sequence of risk stratifiers that will identify patients who are at risk but in whom implantation of expensive devices will be cost-effective. Amongst the investigative tools proven to be helpful to achieve this are ECG screening for left ventricular hypertrophy, increased QRS width, T-wave alternans, heart rate variability, baroreceptor responsiveness, QT dispersion, and T-wave heterogeneity; Holter monitoring to demonstrate ventricular arrhythmias; and stress test in identifying ischaemia. Prompt action is crucial since restoring circulation as fast as possible improves the chances of survival. Family members and caregivers of people with heart disease and at increased risk should be trained to recognise symptoms and perform cardiopulmonary resuscitation (CPR) to reduce the likelihood of death from cardiac arrest. Training and prevention efforts should focus on how to recognise the emergency, CPR training, and automated external defibrillator (AED) use. An implantable cardioverter-defibrillator (ICD) is the preferred therapeutic modality in most survivors of SCD. The incidence of SCD can be reduced by improving the current situation through selection of high risk groups for initiation of therapies, education to the public on the awareness of early warning symptoms and early emergency management that should be readily available in the community

**Keyword:** Early warning symptoms therapies; Emergency management; High risk groups; Sudden cardiac death