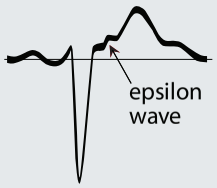
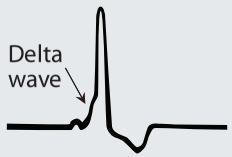
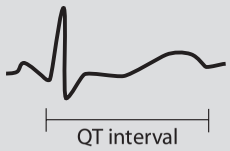
Table 1. Summary of cardiomyopathies

	Presenting symptoms	Diagnostic aids	Management
Structural	**Hypertrophic cardiomyopathy –** *Myocardial hypertrophy in the absence of haemodynamic stress sufficient to cause that degree of hypertrophy.* Most common cause of death during sports activities. Histology: myocyte hypertrophy and myofibrillar disarray. Seventy per cent autosomal dominant inheritance. Sudden cardiac death high-risk features: VF, VT, NSVT, family history of sudden cardiac death, syncope, extreme septal hypertrophy, hypotension on exercise stress testing and high-risk mutations.		
	● Common: chest pain and dyspnoea ● Chest pain precipitated by alcohol or large meals ● Day-to-day variation of exercise tolerance ● Exertional syncope ● Cardiac arrest	● ECG: LV hypertrophy with ST wave and T wave changes, deep Q waves in inferior and lateral leads (septal hypertrophy and fibrosis) ● Holter monitor: NSVT in 25% of adults with hypertrophic cardiomyopathy (asymptomatic) ● Echo: unexplained maximum LV wall thickness of >15mm	● Lifestyle modifications – restriction of activity ● LVOT obstruction: ß-blocker, disopyramide, verapamil ● Heart failure management ● Anti-arrhythmic agents: amiodarone ● Risk of sudden cardiac death: ICD ● Surgery – septal debulking procedures ● Genetic counselling
	Arrhythmogenic right ventricular cardiomyopathy – *Fibrofatty replacement of cardiac myocytes predominantly involving the right ventricle.* Prevalence approximately 1 per 5,000 patients. Thirty per cent autosomal dominant inheritance. Accounts for 3-4% of deaths in sports and 5% of sudden cardiac deaths in patients less than 65 years of age.		
	● Palpitations ● Syncope ● Atypical chest pain ● Dyspnoea	● ECG: T-wave inversion and preferentially prolonged QRS complex (V1-V3), epsilon waves, VT with LBBB ● Echo: Severe dilatation and reduction of RVEF with zero/mild LV impairment 	● Lifestyle modifications – restriction of activity ● Anti-arrhythmic medication: sotalol, amiodarone, ß-blocker ● ICD implantation
	Left ventricle noncompaction - *Congenital 'spongy' morphological appearance of myocardium with propensity to heart failure, arrhythmias and thromboembolic disease.*		
	● Dyspnoea ● Chest pain	● Echo: multiple trabeculations, intertrabecular recesses communicating with the ventricle ● ECG: marked biventricular hypertrophy	● Dependent upon functional abnormalities and comorbidities, including heart failure, systemic emboli and arrhythmias
	Conduction system disease - *Primary progressive development of cardiac conduction defects in His-Purkinje system.*		
	● Syncope ● Palpitations	● Lenègre disease: widened QRS complex, pauses, bradycardia ● WPW: delta wave and shortened PR interval 	● Anti-arrhythmic medication ● Devices: pacemaker insertion ● Radiofrequency ablation of accessory pathways
Genetic	**Long QT syndrome -** *Inherited prolongation of ventricular repolarisation – the most common ion channelopathy.*		
	● Syncope (particularly at young age) ● Palpitations ● Seizures ● Sudden cardiac death - exercise-induced events, for example swimming, diving - auditory and emotional triggers - sleep	● ECG: prolongation of corrected QT interval ● Repeated ECGs, exercise tests and Holter monitors may be required 	● Lifestyle modifications (avoid excessive exercise) ● Avoidance of drugs prolonging QT interval ● Drug therapy: ß-blockers, anti-arrhythmic medication, potassium ● Devices: pacemakers, ICD insertion ● Genetic screening