

TOPIC: A-15 CARDIOLOGY

OBJECTIVE: To undertake a structured approach to the history, examination and investigation of patients presenting with symptoms that may be due to a cardiological cause. To be able to interpret the results of investigations such as ECG, chest x-ray and cardiac enzyme testing.

OBJECTIVES:

- have the knowledge and skills to be able to assess and initiate management of babies and children presenting to the Emergency department with cardiological disorders
- understand the life-threatening nature of some of these conditions and when to ask for the help of a cardiologist or those with more specialised expertise
- know the indications for cardiological investigations including ECGs at all ages and echocardiography

PROBLEM	KNOWLEDGE	SKILLS/ATTITUDES	LEARNING	ASSESSMENT
1. Chest pain	Causes: Cardiac/vascular Respiratory Gastrointestinal/locomotor Psychological Trauma/musculoskeletal Other	Appropriate monitoring treatment and investigation and be familiar with local guidelines for the management of patients with chest pain of possible cardiac origin and pulmonary embolism. To be able to risk stratify patients with chest pain and to be able to follow appropriate departmental pathways.	LP LT GT PS LS SL ODA ODB	OC MC CBD AUD ME FFAEM MFAEM
2. Acute coronary syndromes	Understand stable and unstable angina and myocardial infarction. (ACS) Recognise ECG changes related to ACS.	Recognise the need for urgent assessment and prompt treatment with thrombolysis when indicated.	LP LT GT	OC MC CBD

	<p>Indications, contraindications and complications of thrombolysis.</p> <p>Indications for interventional cardiology.</p> <p>Causes of ST elevation in the absence of myocardial infarction.</p> <p>Management of left ventricular failure in the setting of myocardial infarction.</p> <p>Management of cardiogenic shock*</p> <p>Pharmacology of cardiac drugs.</p>	<p>To be able to obtain informed consent for thrombolysis.</p> <p>To identify and treat complications such as arrhythmias, pulmonary oedema and hypotension.</p>	<p>PS</p> <p>LS</p> <p>ODA</p> <p>ODB</p>	<p>AUD</p> <p>ME</p> <p>FFAEM</p> <p>MFAEM</p>
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3. Patients presenting with syncope.	<p>Causes:</p> <p>Cardiac</p> <p>Neurological</p> <p>Endocrine and others.</p> <p>To be able to risk stratify. Appropriate diagnostic testing of patients with syncope.</p>	<p>To be able to identify those patients that require admission those that need out patient follow up and those that can be safely discharged.</p> <p>To work with support services closely e.g. Syncope Clinics etc.</p>	<p>LP</p> <p>LT</p> <p>GT</p> <p>PS</p> <p>ODA</p>	<p>OC</p> <p>MC</p> <p>CBD</p> <p>ME</p> <p>FFAEM</p> <p>MFAEM</p>
4. Patients presenting in heart failure.	<p>Causes, precipitating factors and prognosis.</p> <p>Knowledge of which drugs to use, contraindications and side effects.</p> <p>Non invasive ventilation.</p> <p>Understand pathophysiology of cardiac failure.</p>	<p>Initiate investigations to identify the cause.</p> <p>Initiate treatment including non invasive ventilation.*</p> <p>To be able to identify those who require invasive ventilation.</p>	<p>LP</p> <p>LT</p> <p>GT</p> <p>PS</p> <p>LS</p> <p>SL</p> <p>ODA</p>	<p>OC</p> <p>MC</p> <p>CBD</p> <p>ME</p> <p>FFAEM</p> <p>MFAEM</p>
5. Arrhythmias	<p>ECG recognition of narrow and broad complex tachycardias and bradycardias.</p> <p>Indications, contraindication and side</p>	<p>To recognise and correctly identify arrhythmias.</p> <p>Ability to perform carotid sinus massage.</p>	<p>LP</p> <p>LT</p> <p>GT</p> <p>PS</p>	<p>OC</p> <p>MC</p> <p>CBD</p> <p>ME</p>

	<p>effects of anti-arrhythmic drugs.</p> <p>Knowledge of ALS guidelines for management of arrhythmias.</p> <p>Indications for pacing.</p> <p>Recognition of complex arrhythmias, eg Wolff-Parkinson-White in AF*</p>	<p>Explain the valsalva manoeuvre. Perform DC cardioversion.</p> <p>Manage arrhythmias according to Resuscitation Council Guidelines. Use of external pacing equipment.</p> <p>To be able to manage those patients haemodynamically compromised*</p>	<p>LS SL ODA</p>	<p>FFAEM MFAEM</p>
6. Severe haemodynamic compromise	<p>Cardiogenic shock, secondary to myocardial infarction, massive PE, aortic dissection, valve rupture etc.</p> <p>Emergency imaging including echocardiogram and CT.</p> <p>Role of thrombolysis/angioplasty/surgery.</p> <p>Use of inotropes.</p>	<p>Recognise the need for rapid assessment.</p> <p>Initiate investigation and treatment.</p> <p>Liaise with appropriate in-patient teams and co-ordinate investigation.</p>	<p>LP LT GT PS LS ODA</p>	<p>OC CBD ME FFAEM MFAEM</p>
7. Other topics.	<p>Endocarditis</p> <p>Implantable cardiac devices*</p> <p>External and internal emergent cardiac pacing</p> <p>Hypertensive emergencies*</p> <p>Disorders of the myocardium and pericardium</p> <p>Valve disorders</p>		<p>LP LT GT PS ODA ODB</p>	<p>OC DOPS ME FFAEM MFAEM</p>

	Cardiac transplantation* Congenital abnormalities as they present in adults* Indications for exercise ECG testing*			
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<u>PROBLEM</u>	<u>KNOWLEDGE</u>	<u>SKILLS/ATTITUDES</u>	<u>LEARNING</u>	<u>ASSESSMENT</u>
Syncope	understand the common causes of syncope	be able to form a differential diagnosis for syncope be able to recognise those patients who need immediate treatment, investigations and admission and those who can be managed as outpatients		