

Block O Managements

ISCHEMIC HEART DISEASE (IHD)

- Acute STEMI (<12h) → Primary PCI (angiography) is gold standard; if unavailable → thrombolysis (streptokinase/tPA)
- NSTEMI / Unstable Angina → Antiplatelets (ASA + P2Y12 inhibitor) + anticoagulant (enoxaparin) ± early PCI
- Adjunct therapy → Beta-blockers, ACE inhibitors, statins, nitrates
- Secondary prevention → Lifestyle, statins, antiplatelets, ACEi/ARB, beta-blockers
- Contraindication to thrombolysis → Hemorrhagic stroke, active bleeding, aortic dissection

ARRHYTHMIAS

- Atrial fibrillation (AF) → Rate control (beta-blockers / diltiazem), rhythm control (amiodarone), anticoagulation (CHA₂DS₂-VASc score)
- Ventricular tachycardia (VT) – stable → Amiodarone / lidocaine; unstable → DC cardioversion
- Supraventricular tachycardia (SVT) → Vagal maneuvers → adenosine → beta-blockers/verapamil
- WPW → Avoid AV-nodal blockers if AF present; definitive → ablation
- Bradyarrhythmias → Atropine; permanent pacemaker if symptomatic

CONGESTIVE HEART FAILURE (CHF)

- Acute decompensated HF → Oxygen, diuretics (furosemide), vasodilators (if hypertensive), inotropes (dobutamine if low output)
- Chronic HFrEF → ACE inhibitors/ARBs/ARNI + Beta-blockers + Mineralocorticoid receptor antagonists + SGLT2 inhibitors
- HFpEF → Treat comorbidities (HTN, AF), diuretics for symptoms
- Device therapy → ICD if EF <35%, CRT if wide QRS + EF <35%
- Avoid → Negative inotropes in HFrEF (nonselective CCBs, antiarrhythmics like flecainide)

In hypertensive acute decompensated heart failure:

- IV nitroglycerin / nitrate infusion → First line - reduce BP and pulmonary congestion
- IV loop diuretics → treat fluid overload
- Oxygen if hypoxemic
- Start/optimize chronic therapies (ACE inhibitor, beta-blocker) after stabilization

Dilated Cardiomyopathy

- Management → ACEi/ARB + Beta-blocker + Diuretics + Mineralocorticoid antagonists
- Advanced / refractory → Heart transplant
- Arrhythmia prevention → ICD if EF <35%

Hypertrophic Cardiomyopathy (HCM)

- Symptomatic management → Beta-blockers / Verapamil
- Avoid → Diuretics (can worsen obstruction)
- Definitive → Septal myectomy / Alcohol septal ablation
- Arrhythmia prophylaxis → ICD if high risk SCD

Restrictive Cardiomyopathy

- Management → Treat underlying cause + Diuretics for congestion
- Definitive → Transplant in severe cases

MYOCARDITIS

- Acute viral myocarditis → Supportive care (rest, avoid strenuous activity)
- Heart failure → ACEi/ARB, Beta-blockers, diuretics
- Severe / fulminant → Inotropes, mechanical circulatory support, transplant
- Avoid → NSAIDs (can worsen inflammation)

PERICARDITIS

- Acute viral / idiopathic → NSAIDs (ibuprofen) + Colchicine
- Recurrent → Colchicine ± low-dose corticosteroids
- Bacterial / purulent → IV antibiotics + pericardial drainage
- Tuberculous → Anti-TB therapy + corticosteroids if constrictive

PERICARDIAL EFFUSION

- Small / asymptomatic → Observation + treat underlying cause
- Moderate / symptomatic → Pericardiocentesis
- Cardiac tamponade → Urgent pericardiocentesis
- Recurrent / constrictive → Pericardial window / pericardiectomy

BACTERIAL (INFECTIVE) ENDOCARDITIS

- Native valve → IV antibiotics (based on culture) for 4–6 weeks
- Prosthetic valve → IV antibiotics for 6+ weeks
- Complications (heart failure / abscess) → Surgical valve replacement
- Empiric therapy → Vancomycin + gentamicin (if culture-negative, high suspicion)
- Prophylaxis → Amoxicillin before dental procedures in high-risk patients

DEEP VEIN THROMBOSIS (DVT)

- Acute DVT → LMWH / Fondaparinux → oral anticoagulant (Warfarin / DOACs)
- Duration → 3–6 months for provoked, indefinite if unprovoked or recurrent
- Severe / limb-threatening → Thrombolysis / thrombectomy
- Preventive → Compression stockings, mobilization, prophylactic LMWH in high-risk

Third-degree (Complete) heart block

- Acute management
 - Atropine (often ineffective)

- Temporary pacing (transvenous or transcutaneous)
- Treat reversible causes (MI, drugs, hyperkalemia)
- Definitive management
 - Permanent pacemaker – ALWAYS indicated

COARCTATION OF AORTA

- Neonates (critical) → Prostaglandin E1 infusion → surgery / balloon angioplasty
- Children / adults → Surgical repair or balloon angioplasty / stenting
- Hypertension management pre-op → Beta-blockers / ACEi
- Post-repair follow-up → Monitor BP & recoarctation

SYSTEMIC HYPERTENSION

- First-line → Lifestyle modification (salt restriction, weight loss, exercise)
- Drug therapy – general → ACEi/ARB / CCB / Thiazide diuretics
- Diabetic / CKD → ACEi/ARB preferred
- Heart failure / post-MI → Beta-blocker + ACEi/ARB
- Resistant HTN → Add mineralocorticoid receptor antagonist (spironolactone)