

Cardiovascular/vasodilator Pharmacology MCQs

1. A patient is started on intravenous GTN for acute pulmonary oedema. The effects on the left ventricle include

A: decreased intraventricular diastolic pressure ✓

B: decreased contractility

C: increased ejection time

D: increased end-diastolic ventricular volume

2. The anti-angina effects of diltiazem are mediated via

A: decreased Ca^{++} current through L-type channels ✓

B: decreased Ca^{++} current through T-type channels

C: decreased K^{+} current through T-type channels

D: local nitric oxide release

3. The vessels responding to nitroglycerin at the lowest concentrations will be

A: arteries

B: arterioles

C: precapillary sphincters

D: veins ✓

4. Adverse effects of nitroglycerin treatment include

A: bronchospasm

B: glaucoma

C: headache ✓

D: thrombocytopenia

5. A patient with angina is taking a nitrate preparation. It has a half-life of 3 hours and excellent oral bioavailability. The drug is

A: amyl nitrate

B: isosorbide dinitrate

C: isosorbide mononitrate ✓

D: pentaerythritol tetranitrate

6. Nitroglycerin has its anti-anginal effects via
- A: autonomic receptor modulation
 - B: nitric oxide release ✓
 - C: potassium channel opening activity
 - D: sodium channel blockade
7. Hydralazine has maximum effect on
- A: arterioles ✓
 - B: epicardial coronary arteries
 - C: large veins
 - D: venules
8. A patient reports ceasing their verapamil treatment due to side effects. A common side effect is
- A: diarrhoea
 - B: peripheral oedema ✓
 - C: Raynaud's phenomenon
 - D: reflex tachycardia
9. Nimodipine has a high affinity for
- A: cerebral vessels ✓
 - B: epicardial coronary arteries
 - C: erectile tissue
 - D: splanchnic vessels
10. A student is reading an out-dated textbook and suggests treating a hypertensive patient with 10mg of immediate-release nifedipine. You would expect the undesirable effects of this drug to last for:
- A: 1 to 2 hours
 - B: 4 to 6 hours ✓
 - C: 12 hours
 - D: 24 hours
11. Toxic effects of prolonged infusion of sodium nitroprusside include all except
- A: delirium
 - B: hepatic failure ✓
 - C: metabolic acidosis
 - D: seizures

12. Nicorandil's effects include

- A: activation of K⁺/ATP channels ✓
- B: blockade of Na⁺/Ca⁺⁺ channels
- C: increased intracellular Ca⁺⁺ levels
- D: increased preload

13. Amlodipine has

- A: greater smooth muscle effects than cardiac effects ✓
- B: low oral bioavailability
- C: selective effects on AV nodal cells
- D: significant Na⁺ channel effects

14. A patient taking vasodilator drugs develops rash, fever and arthralgia. You refer them to rheumatology as ?lupus. The rheum reg knows the culprit is

- A: hydralazine ✓
- B: minoxidil
- C: prazosin
- D: sildenafil

15. You abandon primary study to sell "Anti COVID" preparations containing a complex of iron, cyanide groups and a nitroso moiety. Your Trump Elixir is better known as

- A: guanethidine
- B: milrinone
- C: nisoldipine
- D: nitroprusside ✓