

Q1(c) i) It stimulates adenosine receptors.

(ii) Adenosine has short duration of action (about 15s).

(iii) It is used for abolishing acute supraventricular tachycardia.

(iv) It has low toxicity so it has become the drug of choice for atrial fibrillation.

- Q1. Classify drugs used for treatment of congestive cardiac failure? Pg 112 3
- Write down the Mechanism of action and clinical uses of Digoxin? Pg 120 4
- How will you treat a patient of Digoxin Toxicity? 3
- Q2. a) Discuss Mechanism of Action and adverse effects of following drugs? 3+3+3
 - i) Spironolactone Pg 120 1
 - ii) Lidocaine Pg 130 2
 - iii) Furosemide 2
- Enumerate Class I antiarrhythmic drugs? 2
- Q3. a) What are the advantages of combining nitrates with β blockers in angina? 2
- b) Name the drugs used for hypertensive emergencies? 2
- c) Give Mechanism of action and adverse effects of following? 2+2+2
 - i) Clonidine Pg 101 1
 - ii) Fenoldopam Pg 102 1
 - iii) Verapamil - 1
- Q4. Write down adverse effects and clinical uses of following drugs? 5+5
 - i) Atropine 5
 - ii) Propranolol 5
- Q5. Enumerate indirectly acting cholinergic agonist? 5
- What is Epinephrine reversal phenomenon? Pg 141 5
- Q6. Compare and contrast loop diuretics with thiazide diuretics in terms of MOA, adverse effects and clinical indications? 5+5
- Q7. Write down MOA of Quinidine? 5
- Enumerate various adverse effects of Amiodarone? 5

2. 3 (a) Combination of β -blockers and nitrates useful because the adverse undesirable compensatory effects evoked by the nitrates (tachycardia & \downarrow cardiac force) are prevented or reduced by β -blockers.

also an anti convulsant.

Adverse effects of succinylcholine

- are:
1. Hyperkalemia.
 2. Muscle pain.
 3. \uparrow intragastric and intraocular pressure.



(21)

Q. No. 1.

Classify antiarrhythmic drugs. Describe MOA & A/E of Quinidine.

Q. No. 2.

Write down the indication & A/E of frusemide.

Q. No. 3.

Write down the means & uses of channel blockers.

Q. No. 4.

Write names of 3 drugs used for Chronic heart failure. Adverse effects of ACE inhibitors.

Q. No. 5.

Enumerate A/E of digoxin. How they can be managed.

Q. No. 6.

Write down uses & A/E of nitroglycerin.

PHARMACOLOGY TEST (CVS)

CVS

Time allowed: 1 hour 15 min

Max Marks:

- | | | |
|---|----|--|
| 1. a. Classify antihypertensive drugs ✓ P.P | 40 | |
| b. Name four vasodilators with their brief mechanism of action. ? | 3 | |
| c. Describe the differences between ACE inhibitors and ARB's. ? | 4 | |
| 2. a. Explain why the combination of a nitrate with a β blocker may be more effective than either alone. ? | 1 | |
| b. Write down the MOA and adverse effects of calcium channel blockers. | 3 | |
| c. Explain the role of nitrites in treatment of cyanide poisoning. | 3 | |
| 3. a. List positive inotropic drugs other than digitalis that have been used in heart failure. | 2 | |
| b. Explain the mechanical and electrical effects of digoxin in treatment of heart failure. ? | 1 | |
| c. How does digoxin cause negative chronotropic effect (bradycardia): | 5 | |
| 4. a. List 5 major types of diuretics according to their site of action. | 2 | |
| b. Give clinical uses and adverse effects of spironolactone. ✓ P.P | 1 | |
| c. Describe the possible interaction of cardiac glycosides with loop diuretics. | 5 | |
| 5. a. Describe briefly the differences between subclasses of Class I antiarrhythmics. | 3 | |
| b. Discuss the MOA and adverse effects of amiodarone. | 3 | |
| c. Name an antiarrhythmic drug for a lady suffering from Graves' disease (hyperthyroidism)? What is the mechanism of action of this drug in this particular case? | 2 | |

Department of Pharmacology & Therapeutics

Total Marks: 35

Topic: CVS

Time Allowed: 50 min

F16-074

- | | | |
|----|---|-----|
| 1. | a) Classify Antihypertensive drugs? | 3 |
| | b) Explain MOA of ACE Inhibitors. Enumerate their uses & Adverse Effects? | 4 |
| 2. | a) Compare & Contrast between thiazide & Loop diuretics? | 4 |
| | b) Explain MOA of Ca channel blockers as anti-anginal drugs? | 3 |
| 3. | a) Enumerate drugs used for treatment of Heart failure? - | 3 |
| | b) Explain MOA of digoxin? Write down treatment of digoxin toxicity? | 2 |
| 4. | a) Enumerate class III anti-arrhythmic drugs? | 3 |
| | b) Write down <u>uses</u> & <u>adverse effects</u> of <u>Amiodarone</u> ? ✓ | 2.5 |
| 5. | Short Notes: | 2.5 |
| | a) <u>MOA</u> & <u>Adverse Effects</u> of <u>statins</u> | 2 |
| | b) <u>Osmotic diuretics</u> | 2 |
| | c) <u>Clonidine</u> as Anti-hypertensive drug | 2 |
| | d) <u>Management</u> of hypertensive emergency | 2 |

CVS - Pharmacology

Test No **4**

PHARMACOLOGY TEST CVS
3rd Year MBBS

2016

- SEQs 824
- Marks: 35
- Classify anti arrhythmic drugs. 121k *lipinot pg 207* 2
 - Write adverse effects of Amiodarone. 131k *pg 215 lipinot* 1.5
 - What are the merits of Adenosine as an anti arrhythmic drug? *back Ball* 1.5
 - Compare and contrast Loop and Thiazide diuretics in terms of MOA, indications and adverse effects. *Pg 142k*
 - Classify Calcium channel blockers. What are their uses and adverse effects? *111k Pg 237, 238 + 219 wbn*
 - Write names of 3 drugs used for heart failure. *digoxin, dobutamine, inamrinone, verapamil, nifedipine*
 - What are the adverse effects and contraindications of ACE inhibitors? *ACE inhibitors can induce malformation and cannot be used by women who are pregnant*
 - What are the pharmacological effects of Digoxin? *120k*
 - Write names of two main drugs used for:
 - Angina of effort *Verapamil, diltiazem, nifedipine*
 - Vasospastic Angina *Long acting nitrates (transdermal nitroglycerin)*
 - Unstable Angina *1+1+1*
 - What are the adverse effects of organic nitrates? *1+1+1*
 - Write down uses and adverse effects of:
 - Losartan *102k*
 - Propranolol *102k*
 - Fenoldopam *102k*
 - Write the MOA and uses of:
 - Sodium Nitroprusside *120k*
 - Minoxidil *102k*
 - Spironolactone *120k*

It is positive inotropic, chronotropic and positive chronotropic drug. Hence it cause ↑ in heart rate, ↑ force of contraction and ↑ conduction of impulses.

- 6** Name *General Anesthetics (I.V.)* ①
 Mechanism & Adverse effects of *Phenytoin*
Diazepam
- Name *General Anesthetics (I.V.)* ①
- Mechanism & Adverse Effects of *Phenytoin* ②
Diazepam ②

DONE ✓

CVS

Questions/ Assignments - 4th Round

Cardiovascular Pharmacology

- 1) Classify anti arrhythmic drugs. *Katzung 130 pg Pg 130K*
- 2) Write adverse effects of Amiodarone. *Lippincott 276 Pg 131K*
- 3) What are the merits of Adenosine as an anti arrhythmic drug? *Lippincott 278 Pg 131K*
- 4) Compare and contrast Loop and Thiazide diuretics in terms of MOA, indications and adverse effects. *Katzung 147Pg*
- 5) Classify Calcium channel blockers. What are their uses and adverse effects? *Lippincott 248*
- 6) Write names of 3 drugs used for heart failure. *112, 120K*
- 7) What are the adverse effects and contraindications of ACE Inhibitors? *Katzung 120*
- 8) What are the adverse effects of Digoxin? How would you manage acute Digoxin toxicity? *Digoxin antibodies*
- 9) Write names of two main drugs with MOA used for:
 - a) Angina of effort *112K*
 - b) Vasospastic Angina *111K*
- 10) What are the names and adverse effects of organic nitrates? *111K*
- 11) Write down uses and adverse effects of:
 - a) Losartan *102K*
 - b) Propranolol *92K*
 - c) Fenoldopam *102K*
- 12) Write the MOA and uses of:
 - a) Sodium Nitroprusside *101K*
 - b) Methyldopa *101K*
 - c) Spironolactone *141K*
- 13) Name three drugs which can produce torsade de pointes arrhythmias. How is it managed? *Quinidine*
- 14) Name and justify the use of preferred antihypertensive drugs in the following comorbid conditions:
 - i) Diabetes *102K*
 - ii) Angina *102K*
 - iii) BPH *101K*
- 15) Name two vasodilators which act through opening of potassium channels, what are their uses and adverse effects? *Diazoxide (102K), Nifedipine (102K)*
- 16) How would you manage a patient of unstable angina? *Nitroglycerine & antiplatelet therapy*
- 17) Compare and contrast heparin and warfarin in a tabulated form.
- 18) Write names of three antiplatelet drugs. Write mechanism of action and indications of GP IIb/IIIa antagonists.
- 19) Differentiate between streptokinase and alteplase in terms of MOA and adverse effects.
- 20) Write down MOA, uses and adverse effects of:
 - i) Statins
 - ii) Niacin
 - iii) fibrates
- 21) MOA OF ACE Inhibitors? *120K*
- 22) Angina Pectoris uses and A-E of nitrates and nitrites? *103K*