Department of pharmacology
Faculty of pharmacy
Al Azhar University

Date: 12/05/2016

Dr. Hala Al Agha

Pharmacotherapeutics II

Final exam

Graduation class 2016

Student name (in Arabic):

Please answer as required:

1- **The use of combined oral contraceptives is associated with higher risk of hypertension compared to progesterone only preparations**

a- True.

b- False.

2- **The JNC-8 recommends against the use of an ACE (-) with an ARB in the same patient to control BP**

a- True.

b- False.

3- **A 65 yr old man was recently diagnosed with stable angina. He had a Hx of GI bleeding from an ulcer 5 years ago. He is a candidate for antiplatelet therapy but he is not willing to take clopidogrel. Which one of the following statements is TRUE:**

a- Dipyridamol would be a better choice than aspirin.

b- The patient can start aspirin + PPI therapy.

c- The patient should be tested for H.Pylori, given eradication therapy if positive then given aspirin + PPI.

d- The patient should not be given antiplatelet therapy due to his Hx of GI bleeding.

4- **Regarding the management of patients with stable angina:**

a- All patients should be prescribed B blockers unless contraindicated to improve prognosis and decrease frequency of attacks.

b- B blockers with ISA are better than B blockers lacking ISA.

c- Short acting CCBs are as effective as B blockers in decreasing the frequency of angina attacks but they lack mortality benefits.

d- All of the above.

5- ACE inhibitors are useful in normotensive, non diabetic patients with proteinuria w no contraindications to their use exist.

a- True.

b- False.

6- The following statement regarding Nitrates is TRUE:

a- Clinical evidence has shown a significant mortality benefits from the use of oral nitra in patients with stable angina.

b- Isosorbide mononitrate is a good choice to terminate anginal attacks.

c- Tolerance can be decreased by the use of vitamin C or by adopting nitrate-free period

d- Nitrates are an optimal choice to replace B blockers in patients with angina a contraindications to B blocker use.

7- Ranolazine:

a- Decreases frequency of anginal attacks.

b- Can be used as a substitute or in combination with B blockers in patients with angina

c- Acts by inhibiting late sodium influx in the ischemic tissue.

d- All of the above.

8- Alpha blockers are not considered primary antihypertensive drugs due to their h risk of orthostatic hypotension.

a- True.

b- False

9- The beneficial benefits of B blockers in patients with stable angina include:

a- Reduction of myocardial O2 demands.

b- Improving the perfusion of the subendocardium by the coronary circulation.

c- Stabilizing the atheromatous plaque and thus decrease the risk of MI.

d- All of the above.

10- Combining a B blocker with a dihydropyridine CCB in patients with stable angina further reduce mortality compared to B blocker therapy alone.

a- True.

b- False.

M, a 58-year-old, obese man presents to the clinic for a routine checkup. He has been diagnosed with hypertension for 10 years (on hydochlorothiazide 25 mg/day, amlodipine 10 mg daily) and type 2DM for 3 years (on metformin 500 mg/day). On physical examination, he has peripheral edema and a decrease sensation in feet to light touch. His BP was **168/102** with normal pulse and respiratory rates. His lab results reveals the following: **Na 139 mEq/L** (135-147), **K 4.2 mEq/L** (3.5-5), **serum creatinine 2.0 mg /dl** (0.6-1.2) with estimated **creatinine clearance of 47 ml/min/1.73, fasting blood glucose was 92 mg/dl** (70-100), **Hb A1C: 6.8%**, phosphate, calcium, chloride, CBC and blood gases were all within normal limits. His urinalysis shows albuminuria. Please answer questions from 11-14.

11-Blood pressure in this patient is best managed by:

a- Increasing the dose of his current antihypertensive medications.
b- Replace his medications with a loop diuretic + an ACE inhibitor
c- Replace his medications with diltiazem.
d- Increase the dose of hydrochlorothiazide and replace amlodipine with an ACE inhibitor.

12-The stage of CKD this patient has is:

a- Stage 2.
b- Stage 3.
c- Stage 4.
d- Stage 5.

13-Of the factors that may accelerate the progression to higher stages of CKD in this patient:

a- Hypertension.
b- Diabetes.
c- Proteinuria.
d- All of the above.

14-Metformin sounds to be a good choice to control this patient's diabetes:

a- True.
b- False.

Why or why not?

.....

.....

A 43- yr old man with a history of stage 3b CKD complains of chronic fatigue, N, lethargy a... breathlessness on exertion, palpitations and poor concentration. His recent lab. results were f... to be: **Haemoglobin 8 g/dL (12-15) , RBCs 3.1 × 109 L−1** (4.5-5.5), **Serum ferritin 9...** **mcg/L** (15–300), **phosphate: 7.6 mg/dl** (3.5-4.6), **Corrected calcium 8.8** (8.4-9.5), **iPTH ...** **pg/ml** (5-65), **LDL-C 150 mg/dl** (<78). The patient is currently on calcium carbonate (500 ... elemental calcium 3 times daily) and calcitriol (2ug i.v. 3 times per week). Please ans... questions from 15-25.

15- Normocytic, normochromic anemia is the most likely type of anemia in this patient a... in chronic kidney disease patients in general.

a- True.
b- False.

16- Iron supplementation must be given to this patient before starting ESA therapy.

a- True.
b- False

Why or why not?

.....

.....

17- If iron supplementation is to be given, the IV route is preferred.

a- True.
b- False.

Why or why not?

.....

.....

18- Using ESA therapy, target Hb concentration should be ..... and t... rate of rise of Hb should be .....

Reason for that:

.....

.....

19- Darbepoeitin alpha is a continuous ESA that can be given once monthly.

a- True.
b- False.

20- Failure to ESAs may be caused by:

a- Hyperparathyroidism.
b- Iron deficiency.
c- Folic acid deficiency.
d- All of the above.

22- For all patients on ESAs therapy, the following should be monitored:

a. .....

b. .....

c. .....

23- Phosphate levels in this patient are still high despite dietary restrictions and calcium carbonate therapy, this can be best managed by:

a. Increasing the dose of calcium carbonate.

b. Using sevelamir HCL.

c. Using aluminum hydroxide.

Please justify your answer

.....

.....

.....

.....

23- Vitamin D (calcitriol) therapy in this patient should preferably be stopped.

Reason for that:

.....

.....

.....

24- Good choice for managing his high iPTH could be

.....

25- Factors in this particular patient – related to his renal disease- that may increase his cardiovascular risk are:

RR is a 65-year-old, 85-kg, hypertensive woman who was admitted to the hospital at 11:00 complaining of chest heaviness/tightness that started at 10:00 am while she was at her place employment. She has no prior Hx of IHD. On presentation her **BP was 195/110**. She was g three 0.4-mg sublingual nitroglycerin tablets by mouth, 325 mg ASA by mouth without relie chest discomfort. She was diagnosed with STEMI, given morphine IV with cyclizine and n oxygen. The hospital has a cardiac catheterization laboratory and primary PCI was selected treatment strategy for her STEMI. Please answer Q26-31.

26- The PCI for this patient is considered:

a- Primary PCI.
b- Facilitated PCI.
c- Rescue PCI.

27- PCI is superior to fibrinolytic therapy in the treatment of acute MI.

a- True.
b- False.

28- Criteria for diagnosis of STEMI include:

a- ST segment elevation on the ECG.
b- Raised cardiac markers.
c- A,b.

29- Additional therapy to be given to this patient:

a- Prasugrel + statin before the PCI and heparin during the procedure.
b- Clopidogrel before + heparin during the procedure.
c- Alteplase + prasugrel before the procedure and heparin during the procedure.

30- PCI was performed in this patient with implantation of DES, after discharge the pati should be prescribed the following drugs EXCEPT:

a- Aspirin and clopidogrel for one year, continue aspirin long life.
b- High intensity statin therapy long life.
c- B blocker for 3 months.
d- LMW heparin long life.

31- If fibrinolytic therapy was chosen to treat this patient's MI instead of PCI, please st which of the following statements is TRUE:

a- BP should be reduced to normal <140/90 before using the fibrinolytic agent.
b- Bivalirudin is a good anticoagulant to be combined with streptokinase to reduce the risk o reinfarction.
c- Alteplase carries a lower risk of systemic and intracranial hemorrhage compared to streptokinase.
d- After discharge from the hospital, the patient should be given aspirin + clopidogrel long

MM is a 65 yr old man who was treated for NSTEMI. On admission he had the classical manifestations of acute coronary syndromes, was hypotensive, troponin levels were elevated with ECG showing ST segment depression. Prior to his acute illness, he had LVF with ejection fraction of 38%. He had no kidney disease nor diabetes. Please answer the questions from 32-35.

32- Usually invasive treatment is best used in such case.

- True.
- False.

33- Fibrinolytic therapy would be a good choice if MM was admitted within 6 hrs of presentation of symptoms.

- True.
- False.

34- Upon discharge, it is recommended to take an ACE (-) and an aldosterone antagonist long life.

- True.
- False.

35- Conservative therapy includes the use of the following drugs:

-
-
-

addition to supportive therapies (oxygen and morphine if needed).

Best Wishes *Pharmacists 2011*

☺☺