ASSESSMENT OF 30 MCQS

FPSC NO : 97
MCQS ON CHRONIC DISEASE MANAGEMENT 2022
SUBMISSION DEADLINE: 19 April 2022, 12 NOON

INSTRUCTIONS
- **To submit answers to the following multiple choice questions, you are required to log on to the College Online Portal (https://lms.wizlearn.com/cfps/)**
- **Please contact sfp@cfps.org.sg if you have not received an email on the new LMS account.**
- **Attempt ALL the following multiple-choice questions.**
- **There is only ONE correct answer for each question.**
- **The answers should be submitted to the College of Family Physicians Singapore via the College Online Portal before the submission deadline stated above.**
- **There will be NO further extension of the submission deadline**

1. In order to reduce cardiovascular, renal and all-cause mortality, the American Heart Association (AHA) and the American College of Cardiology (ACC) has set the definition of hypertension as a BP of X in 2017. What is X?

A. 120/70 mmHg
B. 125/75 mmHg
C. 130/80 mmHg
D. 135/85 mmHg
E. 140/90 mmHg

2. What is the cut-off of blood pressure for the diagnosis of hypertension that is recommended by MOH Clinical Practice Guideline?

A. 120/70 mmHg
B. 125/75 mmHg
C. 130/70 mmHg
D. 135/80 mmHg
E. 140/90 mmHg

3. Which of the following are the characteristics of masked hypertension?

A. High home BP more than three days in a week
B. Normal office BP and high home BP
C. High office BP and normal home BP
D. Normal office BP and normal home BP
E. High office BP and high home BP

4. What is the conventional definition of Microalbuminuria?

A. Albumin excretion between 60 and 600 mg/24 hours.
B. Albumin excretion between 50 and 500 mg /24 hours.
C. Albumin excretion between 40 and 400 mg/24 hours.
D. Albumin excretion between 30 and 300 mg/24 hours.
E. Albumin excretion between 20 and 200 mg/24 hours.

5. A study by Epstein & Sowers found that hypertension was X times as prevalent in patients with diabetes compared to the general population. What is X?

A. Two
B. Three
C. Four
D. Five
E. Six

6. Patients on insulin therapy should receive essential education on the following EXCEPT:

A. Insulin injection technique.
B. Recognition and self-management of hypoglycaemia.
C. Sick day management.
D. Stopping all oral hypoglycaemic agents.
E. Safe driving advice.

7. Which of the following is FALSE regarding patient education for insulin therapy?

A. It improves the patient's experience and adherence to insulin therapy.
B. It requires time and preparation.
C. It can only be done by diabetes nurse educators.
D. Different topics and focus can be covered at different stages of insulin therapy.
E. We need to confirm the patient's and caregiver's understanding periodically and clarify their doubts.

8. The following strategies can be used to help patients overcome the barriers and challenges faced in insulin therapy EXCEPT:

A. Engage the patient in shared decision making.
B. Threaten the patient into adherence with insulin therapy.
C. Provide close supervision and follow-up when the patient is newly initiated on insulin therapy.
D. Offer measures to reduce weight gain through lifestyle and dietary advice, concomitant use of insulin with metformin, SGLT-2 inhibitors, GLP-1RA.
E. Set appropriate and achievable goals with the patient and caregiver.

9. The glycaemic profiles of people living with diabetes is affected by the following EXCEPT:

A. Monitoring of blood glucose
B. Dietary intake
C. Exercise
D. Stress
E. Medications

10. Which of the following is NOT an early warning symptom of hypoglycaemia?

A. Tremors
B. Palpitations
C. Diaphoresis
D. Anxiety
E. Giddiness, drowsiness

11. Which of the following is NOT involved with weight regulation?

A. The hypothalamic arcuate nucleus (ARC)
B. The lateral geniculate nucleus
C. The lateral hypothalamic area
D. The paraventricular nucleus
E. Nucleus of solitary tract of the hindbrain

12. Obesity is now determined to be a disease because:

i. Obesity is common.
ii. The development of obesity results from established pathophysiology.
iii. Obesity results in negative health consequences.
iv. Obesity increases mortality.

A. i and ii
B. ii and iii
C. i and iv
D. ii, iii, and iv
E. All of the above

13. Which of the following statements regarding weight regulation is FALSE?

A. The reward system of weight regulation cannot override the signals from the homeostatic weight regulation circuitry.
B. Weight regain after weight loss is physiological and not necessarily due to a failure of conscious efforts to lose weight.
C. "Liking" and "wanting" of food are subconscious processes.
D. In human studies, functional MRI (fMRI) studies have shown overactivation of reward-encoding brain regions and/or deficiency in cortical inhibitory networks in obese people.
E. The non-homeostatic weight regulation circuitry centres around the corticolimbic structures of the brain.

14. Which of the following statements regarding dietary approaches to obesity treatment is TRUE?

A. Dietary modifications are generally not sustainable and hence dietary approaches are not as important as pharmacological approaches.
B. There is no Randomised Controlled Trial (RCT) level of evidence regarding decreasing sugar sweetened beverages.
C. Dietary approaches can be broadly categorised into energy-focused, macronutrient-focused, dietary pattern-focused, and dietary timing-focused.
D. Long-term diet trials have shown intermittent fasting to be superior to continuous energy restriction with respect to average weight loss.
E. Carbohydrates have a greater satiating effect compared with proteins and fats, especially in obese individuals.

15. Which of the following is NOT an example of intermittent fasting?

A. Alternate day fasting
B. Very low calorie diet
C. Time restricted feeding
D. Religious fasting
E. The "5:2 diet"

16. Mr Xavier, a 60-year-old accountant, was recently started on allopurinol 100mg two months ago. This was increased to 200mg three weeks ago in your clinic.

He informed you that he was diagnosed with UTI and started on ciprofloxacin. Today, he returns to your clinic with maculopapular rashes on his trunk and abdomen. He has a low-grade fever of 37.5°C.

Which is the most appropriate next step?

A. Stop Ciprofloxacin and continue the chronic medications
B. Prescribe paracetamol for pain relief and switch to Moxifloxacin 500 mg bd instead
C. Continue medications and check for Dengue serology
D. Stop Allopurinol
E. Stop all medications and refer for possible drug allergy/SJS

17. Mr Tan, a 50-year-old with hypertension, sees you for a routine review. He reports three gout flares in the past two months, relieved with three days of Arcoxia for each episode. You perform some blood tests, which result in the following returns:

Creatinine 95 umol/L, eGFR >90 mL/min
Uric acid 460 mmol/L
HbA1c 5.4 percent
Random hypo-count 7.5 mmol/L

He is currently on Amlodipine 10 mg OM. He does not drink alcohol except one glass of wine once or twice a year on special occasions. His BMI is 20.5 kg/m^2.

Which is the most appropriate next step?

A. Prescribe NSAIDs standby for gout flare
B. Offer dietary advice and advise regular exercise only
C. Prescribe prednisolone standby for gout flare
D. Offer exercise and dietary advice
E. Discuss urate lowering therapy as he has had >2 gout flares in the past year, ideally with colchicine prophylaxis

18. Mr Yee, 45 years old, reports three recent gout attacks in the ankle or knee. You notice a small tophus over his left elbow.

He says that two years ago he had taken allopurinol 100 mg for one month followed by 200 mg OM for one month, but stopped as it "did not help his gout and there was no improvement". When you probe, he states that he was not very adherent to allopurinol either then as it was some years ago. He says he took it likely "once or twice a week". He states that he did not experience any rashes or other side effects to it then.

He did not go back to see his previous GP as he has moved house and your clinic is nearer to his home.

He does not drink alcohol except one glass of wine once or twice a year on special occasions.

Two weeks ago, he was admitted to the hospital for a gout flare. He had blood tests done, which returned the results below. He is asking you to give him Arcoxia standby as it usually works for his gout flare.

Uric acid 620 mmol/L
Creatinine 96 umol/L, eGFR >90 mL/min
BP 144/94 mmHg. He has HTN on HCTZ long-term.

Which is incorrect advice?

A. Offer to restart allopurinol and explain that it does not work immediately. You may wish to discuss HLA B5801 testing particularly as it is unclear how frequent and for how long he was taking allopurinol previously.
B. Advise that he will need stepwise up-titration of a urate lowering agent to reach uric acid target. Regular blood tests will allow this to be done safely.
C. Advice that colchicine prophylaxis is helpful to prevent gout attacks, as it takes time for a urate lowering agent to reach uric acid target.
D. Advise him that allopurinol is ineffective. Offer to initiate febuxostat or probenecid immediately.
E. Inform him that if he is increasing allopurinol to a dose higher than previously taken, he should watch for signs of allergy such as rashes, red eyes, or mouth ulcers. If this happens – he should stop allopurinol immediately and see a doctor.

19. You are seeing Mr Yee two months later. At your last visit, he did not want colchicine prophylaxis as he did not want to take "too many tablets". He has started and is adherent to his urate lowering agent. Last month, his uric acid had decreased to 390 mmol/L.

He had a gout flare last week. Hence, he came to your clinic today to ask about colchicine prophylaxis.

Which is INCORRECT advice regarding colchicine prophylaxis?

A. Offer to start colchicine at 500mcg once daily or alternate days as gout prophylaxis as his renal function is normal.
B. Colchicine can help to reduce the frequency of flares, especially during the first six months of Urate lowering therapy.
C. Tell him that if he is started on NEW medications, he should inform his doctor or pharmacist that he is on colchicine regularly as colchicine can have drug interactions. If unsure and he needs to take NEW medications, such as a short course of antibiotics, he is to omit colchicine until the new medication is completed.
D. Regular colchicine prophylaxis in someone with normal renal function and regular monitoring can lead to renal failure.
E. If he is having vomiting or diarrhoea, he should omit colchicine prophylaxis and only restart when he is well.

20. Mr Soh, a 40-year-old accountant on allopurinol 200 mg OM for the past eight months, reports two recent gout attacks in the past year. He has no other known past medical history. When you probe, he is adherent to allopurinol except for missing it perhaps once or twice a month.

His BMI 25 kg/m², BP 144/94mm Hg. His last uric acid was one month ago, which was 405mmol/L.

He is having a gout attack now. He tells you that his gout attacks are usually aborted with colchicine TDS for two days. Whilst on colchicine, he does not experience diarrhoea except for one episode of loose stools, after which he stops colchicine.

Which is the most appropriate next step?

A. Start Hydrochlorothiazide for hypertension.
B. Start Losartan for hypertension.
C. Stop Allopurinol during this acute gout attack and start colchicine. Consider checking a baseline creatinine if not recently available.
D. Continue allopurinol at 200 mg OM despite the attack and start colchicine. Consider checking an updated uric acid level and creatinine two weeks after the attack resolves. If uric acid is >360, explain that allopurinol 200 mg OM is insufficient and needs to be up titrated.
E. Increase the allopurinol to 300 mg OM today and start colchicine. Consider checking a baseline creatinine if not recently done.

21. The followings are risk factors associated with non-alcoholic fatty liver disease (NAFLD) except:

A. Elevated uric acid
B. Elevated blood pressure
C. Diabetes mellitus
D. Elevated LDL-cholesterol
E. Elevated triglycerides

22. Proven treatment for patients with non-cirrhosis from NAFLD include the following except:

A. Liver transplant
B. Bariatric surgery
C. Vitamin E
D. Weight loss
E. Metformin

23. Assessment of NAFLD at primary care clinic includes for followings except:

A. Fibroscan
B. Fasting glucose
C. Liver biopsy
D. Liver function test
E. Fasting lipids

24. The following are major causes of death among patients with NAFLD over the long term, except:

A. Pancreatic cancer
B. Acute myocardial infarct
C. Road traffic accident
D. Colon cancer
E. Breast cancer

25. The following are common abnormal laboratory markers in patients with NAFLD except:

A. Elevated uric acid
B. Elevated triglycerides
C. Elevated hct
D. Elevated GGT
E. Elevated fasting glucose

26. Certain drug classes may cause harm in patients with symptomatic (NYHA classes II-IV) reduced ejection Heart failure (HFrEF), and thus should be avoided. If they are strongly indicated, they are to be used with caution, and with close monitoring. Such drugs include all of the following except:

A. Thiazolidinediones (glitazones, e.g., pioglitazone, rosiglitazone)
B. Nonsteroidal anti-inflammatory drugs and COX-2 inhibitors
C. Nutritional supplements (e.g., coenzyme Q10, carnitine, taurine, and antioxidants)
D. Non-dihydropyridine calcium-channel blockers (verapamil, diltiazem)
E. Trastuzumab

27. A 58-year-old man with a known history of heart failure from cardiomyopathy, with an ejection fraction of 30 percent returns for a 3-week follow-up visit after being started on frusemide 40 mg od for increasing symptoms of dyspnea. Since starting frusemide, his symptoms have returned to baseline and he has lost 3 kg. He is maintained on guideline-directed medical therapy for heart failure including sacubitril/valsartan 97 mg/103 mg BD, carvedilol 12.5 mg BD, Simvastatin 40 mg ON, and aspirin 81 mg OD. His physical examination reveals: blood pressure of 128/80 mmHg, regular heart rate of 78 bpm, respiratory rate of 18 breaths/min, and room air oxygen saturation of 96 percent with no saturation decrease with hallway ambulation. He has no peripheral edema. A clinic electrocardiogram reveals a left bundle branch block with a QRS duration of >150 msec. What would be the most appropriate next step in management?

A. Refer him to an electrophysiologist
B. Discontinue the sacubitril/valsartan 97 mg/103 mg BD
C. Change his diuretic to spironolactone 25 mg OD
D. Increase the frusemide to 40 mg BD
E. Order a repeat echocardiogram

28. Which of the following appropriately describes diastolic dysfunction?

A. The rate of filling of the ventricles during diastole is slowed
B. The left ventricle is dilated
C. The preload (end ventricular diastolic volume) is increased
D. The left ventricular ejection fraction is decreased
E. There is dys-synchrony between the left and right ventricular function

29. Caution should be exercised in the initiation of an ARNI in all of the following clinical scenarios except:

A. Significant hyperkalaemia
B. Significant renal dysfunction (eGFR <30 ml/min)
C. Patient on a maximal dose ACE-inhibitor
D. Non-alcoholic fatty liver disease (NAFLD)
E. Symptomatic or severe asymptomatic hypotension (SBP <90 mmHg)

30. A 59-year-old lady with type 2 diabetes mellitus (T2DM), heart failure from coronary artery disease, and an ejection fraction of 60 percent attends your practice for a routine follow-up. She has mild dyspnea while climbing stairs but reports no other limitations in her usual activities. Her HbA1c was 7.2 percent. She is compliant to extended-release metformin 2,000 mg OD, Rosuvastatin 10 mg ON, Telmisartan 40 mg OD, carvedilol 25 mg BD, and aspirin 100 mg OD.

Her vital signs reveal stable body weight at 88 kg, a blood pressure of 126/78 mmHg, a heart rate of 68 bpm and regular, and a respiratory rate of 18 breaths/min. Her examination is otherwise normal. What would be the most appropriate next step in management?

A. Increase carvedilol to 50 mg BD
B. Add an SGLT2-inhibitor to her regimen
C. Add basal insulin to her regimen
D. Add dipeptidyl peptidase-4 (DPP-4) inhibitor to her regimen
E. Add frusemide 40 mg OD

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1.	E	6.	D	11.	B
2.	C	7.	B	12.	C
3.	A	8.	A	13.	C
4.	D	9.	E	14.	D
5.	C	10.	D	15.	B