ASSESSMENT OF 30 MCQS

FPSC NO : 115
MCQS ON CHRONIC DISEASE MANAGEMENT 2024
SUBMISSION DEADLINE: 2 April 2024, 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. With regards to starting drug therapy for arterial hypertension, at which level of diastolic pressure should treatment be considered?

A. 60 to 69 mmHg
B. 70 to 79 mmHg
C. 80 to 89 mmHg
D. 90 to 95 mmHg
E. 96 to 99 mmHg

2. With regards to adverse effects of first-line antihypertensive medications, angioedema has been associated with which ONE of the following classes of antihypertensives?

A. Angiotensin receptor blockers
B. Angiotensin-converting enzyme inhibitors
C. Calcium channel blockers (dihydropyridine)
D. Thiazide diuretics
E. None of the above

3. Sodium-glucose-co-transporter-2 (SGLT-2) inhibitors were shown to reduce albuminuria and proteinuria by X%. What is X?

A. 10-30
B. 20-40
C. 30-50
D. 40-60
E. 50-70

4. The BMI that does NOT INCREASE the risk of renal disease and CKD is X. What is X?

A. 25 or more
B. 30 or more
C. 35 or more
D. 40 or more
E. 45 or more

5. With regards to metabolic and bariatric surgery performed in East Asia, which ONE of the following is most commonly performed?

A. Roux-en-Y gastric bypass (RSYB)
B. Adjustable gastric banding (AGB)
C. Mini-gastric bypass
D. Sleeve gastrectomy (SG)
E. All about equal proportions

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

A. Insulin injection technique
B. Stopping all oral hypoglycaemic agents
C. Recognition and self-management of hypoglycaemia
D. Sick day management
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. Different topics and focus can be covered at different stages of insulin therapy
D. It can only be done by diabetes nurse educators
E. The medical team should periodically check on the patient's and caregiver's understanding 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. Threaten patient into adherence with insulin therapy
B. Engage the patient in shared decision-making, select an insulin regimen that they can adhere to
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. Dietary intake
B. Exercise
C. Monitoring of blood glucose
D. Stress
E. Medications

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

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

11. All of the following are potential factors leading to weight gain EXCEPT:

A. Disrupted circadian rhythm
B. Use of anti-histamines and sulphonylureas
C. Changes in gut microbiota
D. Controlled food portions that are of low energy density
E. High amount of screen time

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

A. Functional MRI (fMRI) studies have shown overactivation of reward-encoding brain regions and/or deficiency in cortical inhibitory networks in obese people
B. The homeostatic weight regulation circuitry centres around the corticolimbic structures of the brain
C. "Liking" and "wanting" of food are subconscious processes
D. The reward system of weight regulation is non-homeostatic in nature
E. One's weight "set point" is the result of a tightly regulated neuroendocrine energy balance

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

A. Dietary approaches are not as important as pharmacological approaches
B. Carbohydrates have a greater satiating effect compared with proteins and fats, especially in individuals with prediabetes and obesity
C. Intermittent fasting has consistently shown superior weight loss to very-low calorie and ketogenic diets as it is the easiest to adhere to
D. Patient preference of dietary interventions plays a key part in adherence and ultimately weight loss and maintenance
E. Dietary approaches can be broadly categorised into energy-focused, macronutrient-focused, reward-focused, and dietary timing-focused

14. Which of the following patients would probably not benefit from a >5-10% weight loss?

A. A 28-year-old female with BMI 37 kg/m^2 and oligomenorrhea but planning for fertility in the future
B. A 40-year-old man with BMI 26kg/m^2, who has a strong family history of diabetes, recently diagnosed with prediabetes
C. A 21-year-old man with BMI 42 kg/m^2 with no known medical problems and a family history of T2DM
D. A 70-year-old female, BMI 26 kg/m^2, with well-controlled T2DM on two oral anti-diabetic medications and osteoporosis
E. A 50-year-old female with BMI 35 kg/m^2 with metabolic-associated steatotic liver disease (formerly known as NAFLD)

15. Which of the following are true about obesity and its management?

I. Weight regain after weight loss is physiological and not necessarily due to a failure of conscious efforts to lose weight
II. People with obesity gain weight solely from a personal choice of poor dietary habits
III. Bariatric surgery should be offered only after failure to lose weight with pharmacotherapy
IV. Long-term diet trials have not shown clear superiority of one diet over another with respect to average weight loss

A. All of the above
B. II, III, and IV
C. I and II
D. I and III
E. I and IV

16. Mr Xavier, a 60-year-old accountant, was recently started on allopurinol 100 mg OM two months ago and increased to 200 mg 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 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/Stevens Johnson Syndrome

17. Mr Tan, a 50-year-old with hypertension, sees you for routine review. He reports three gout flares in the past two months relieved with three days of Arcoxia 120 mg OM for each episode. You perform some blood tests, which returns the following results:

Creatinine 95 umol/L, eGFR >90 mL/min
Uric acid 460 mmol/L
HbA1c 5.4%
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, a 45-year-old, reports three recent gout attacks in the ankle or knee. You notice a small tophus over the left elbow. He says that two years ago he had taken allopurinol 100 mg for one month, then 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, and he says he probably took it "once or twice a week". He states 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. He has past history of renal stones and also underlying ischaemic cardiomyopathy for which he is still being followed up by the cardiologist.

Two weeks ago, he was admitted to the hospital for a gout flare. He had a blood test done, with the following results:

Uric acid 620 mmol/L
Creatinine 120 umol/L, eGFR 55 mL/min
BP 144/94 mmHg, he has Hypertension on HCTZ long-term

He is asking you to give him Arcoxia 120 mg OM standby as it usually works for his gout flare. Which is correct advice?

A. Discuss HLA B5801 testing particularly as febuxostat is being prescribed for him
B. Advise that he will need stepwise up-titration of allopurinol to reach the uric acid target. Regular blood tests will allow this to be done safely
C. Advise that colchicine prophylaxis is helpful to prevent gout attacks and increase hydrochlorothiazide to optimise his BP control
D. Offer to initiate probenecid immediately as allopurinol is ineffective
E. Start him on allopurinol 300 mg once per day and inform him that 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 correct advice regarding colchicine prophylaxis?

A. Offer to start colchicine at 500 mcg once daily or alternate days as gout prophylaxis as his renal function is abnormal
B. Colchicine cannot 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 clarithromycin, he does not need to inform his doctor or pharmacist that he is on colchicine regularly as colchicine can have drug interactions. There is no impact of clarithromycin on colchicine prophylaxis; he can continue colchicine until it is completed
D. Regular colchicine prophylaxis in someone with normal renal function and regular monitoring can lead to renal failure
E. If he is vomiting or having diarrhoea, he should continue with colchicine prophylaxis and only stop 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 last 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 is 25 kg/m^2, BP 144/94 mm Hg. His last uric acid was one month ago, which was 405 mmol/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 perhaps 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 100 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 100 mg OM is insufficient and needs to be up titrated
E. Increase the allopurinol to 200 mg OM today and start colchicine. Consider checking a baseline creatinine if not recently done

21. Which of the following laboratory abnormalities is NOT associated with fatty liver?

A. Elevated uric acid
B. Elevated LDL-cholesterol
C. Elevated fasting glucose
D. Elevated creatinine kinase
E. Elevated triglycerides

22. Which of the following has been shown to be useful in managing fatty liver?

A. Insulin injection
B. Metformin
C. Vitamin E
D. Exercises
E. Dieting

23. Which of the following is NOT part of the histology of non-alcoholic steatohepatitis?

A. Fatty infiltration in liver
B. Fibrosis of liver
C. Inflammatory infiltrates in lobules
D. Cirrhosis
E. Mallory bodies

24. Which of the following should be not be routinely performed for patients with suspected non-alcoholic fatty liver disease?

A. Liver biopsy
B. Imaging studies like US scan
C. Fasting lipids
D. Fasting glucose
E. Liver function test

25. Which of the following statements on NAFLD is false?

A. Weight loss is the prime way of management
B. Long-term management is needed
C. Patients should be referred to specialists for further evaluation
D. Statins can be used in patients with NAFLD and dyslipidaemia
E. Metformin should be used as first-line treatment in patients with NAFLD and diabetes mellitus

26. Which of the following test(s) is/are routinely used in the assessment of heart failure?

A. Holter monitoring
B. ECG and echocardiography
C. Ambulatory blood pressure monitoring
D. Echocardiography
E. Trans-oesophageal echocardiography

27. In the clinical assessment of heart failure, which of the following is FALSE?

A. Jugular venous distention, an S1 heart sound, and non-displaced apical impulse significantly increase the likelihood of the diagnosis
B. Hypertension, CAD, and valvular disease are the most common causes
C. Fatigue, weakness, dyspnea, orthopnea, paroxysmal nocturnal dyspnea, and edema are common symptoms
D. Cardiomegaly on CXR is helpful in supporting the diagnosis
E. An ECG is necessary in patients with suspected heart failure to assess for evidence of CAD, left ventricular hypertrophy, and dysrhythmia

28. In preserved ejection heart failure (HFpEF), which of the following is NOT a key clinician recommendation?

A. Request a brain natriuretic peptide or N-terminal pro-brain natriuretic peptide level for patients with possible heart failure if the diagnosis is uncertain
B. Patients with coronary artery disease who have indications should be offered revascularisation
C. Patients should be referred for endurance and resistance training
D. Patients with suspected heart failure should be referred for transthoracic echocardiography to confirm the diagnosis and identify preserved or reduced ejection fraction
E. The use of nitrates, spironolactone, and angiotensin receptor blockers should be considered early in patients with HFpEF

29. Which of the following is FALSE about reduced ejection fraction heart failure (HErEF)?

A. The goals of therapy are to reduce morbidity (i.e., reducing symptoms, improving health-related quality of life and functional status, decreasing the rate of hospitalisation) and to reduce mortality

B. Beta blockers, angiotensin converting enzyme (ACE) inhibitor, angiotensin II receptor blocker (ARB), or angiotensin receptor-neprilysin inhibitor (ARNI) and mineralocorticoid receptor antagonist (MRA) are the preferred antihypertensive agents because these agents improve survival

C. Recommended lifestyle modifications include smoking cessation, restriction of alcohol consumption, salt restriction, weight reduction in obese patients, as well as daily weight monitoring to detect fluid accumulation before it becomes symptomatic

D. Patients at high risk for re-hospitalisation should be referred to a long-term care facility

E. Treatment should address contributing factors such as hypertension, myocardial ischemia or infarction, diabetes mellitus, thyroid dysfunction, and infection

30. Which of the following is FALSE about brain natriuretic peptide (BNP)?

A. Plasma levels of BNP often correspond to the severity of underlying cardiac dysfunction and can provide relatively reliable prognostic information

B. It is secreted in response by the atria and ventricles in response to stretching for increased wall tension

C. Obesity, diuretics, ACE inhibitors, beta blockers, angiotensin receptor antagonists, and aldosterone antagonists can lead to falsely high levels of BNP

D. Common conditions that may falsely elevate plasma BNP levels include age and significant renal dysfunction

E. Patients with BNP levels higher than 1,000 pg/mL often have an especially poor prognosis