ASSESSMENT OF 30 MCQS

FPSC NO : 105
MCQS ON CHRONIC DISEASE MANAGEMENT 2023
SUBMISSION DEADLINE: 28 March 2023, 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 the new ACC/AHA hypertension guidelines published in 2020, hypertension is diagnosed when blood pressure is consistently ≥X mmHg. What is X?

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

2. What is the cut-off point 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. In a local Singapore study of diabetes mellitus and uncontrolled hypertension in 2019, it was noted that the prevalence of type 2 diabetes mellitus is X percent. What is X?

A. 14.2%
B. 12.2%
C. 10.2%
D. 9.2%
E. 8.2%

6. The following are common barriers to insulin initiation inertia in Singapore EXCEPT:

A. Worry about the use of needles and fear of pain
B. Inconvenience and disruption to lifestyle
C. The patient's misconception that the use of insulin can lead to complications such as kidney failure or amputations
D. Clinical inertia by physicians on intensification of therapy
E. Access to insulin therapy

7. The following strategies are useful to assist patients in overcoming the challenges faced with insulin therapy EXCEPT:

A. Demonstrating of insulin administration to the patient and the convenience of insulin pens
B. Offer measures to reduce weight gain – lifestyle advice, concomitant use of insulin with metformin, SGLT-2 inhibitors, GLP-1RA
C. Educating patients on the desired glycaemic targets through SMBG training and interpretation
D. Empowering patients with the knowledge on hypoglycaemia management
E. Attributing the patients' uncontrolled DM on their lifestyle and diet

8. If the patient's diabetes mellitus remains poorly controlled despite a basal insulin dose of 0.5 units/kg/day, which of the following strategies will NOT be useful to further optimise their diabetes control?

A. Increase the dose of basal insulin by 4-6 units
B. Intensifying the insulin regime to a basal-plus regimen
C. Intensifying the insulin regime to a basal-bolus regimen
D. Switching the patient to a pre-mixed insulin regimen
E. Addition of GLP-1RA to the patient's treatment regimen

9. When patients are newly initiated on insulin therapy, the physician should advise patients on all of the following EXCEPT:

A. Insulin administration and storage
B. Safe driving
C. Discontinue all oral hypoglycaemic agents
D. Sick day management
E. Effects of fasting and exercise and changes in insulin requirements

10. Which of the following is not a risk factor for developing hypoglycaemia?

A. Advanced age
B. Performing resistance exercises
C. Renal impairment
D. Intensive or high dose of insulin therapy
E. Poor oral intake or prolonged fasting

11. 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. "Liking" and "wanting" of food are subconscious processes.
C. The homeostatic weight regulation circuitry centres around the corticolimbic structures of the brain.
D. The reward system of weight regulation is non-homeostatic in nature.
E. Weight regain after weight loss is physiological and not necessarily due to a failure of conscious efforts to lose weight.

12. All of the following are potential factors leading to obesity EXCEPT:

A. Emotional (Psychological)
B. Genetic
C. Inadequate sleep
D. Lifestyle
E. Microbial content of the skin

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

A. Carbohydrates have a greater satiating effect compared with proteins and fats, especially in obese individuals
B. Dietary approaches are not as important as pharmacological approaches
C. Decreasing sugar sweetened beverages is not evidence-based
D. Dietary approaches can be broadly categorised into energy-focused, macronutrient-focused, reward-focused and dietary timing-focused
E. Long-term diet trials have not shown clear superiority of one diet over another with respect to average weight loss

14. All of the following are examples of intermittent fasting EXCEPT:

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

15. Which of the following is a possible mechanism of intermittent fasting?

i. increase in pro-inflammatory cytokines
ii. ketogenesis
iii. optimisation of circadian rhythms
iv. reduction oxidative stress

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

16. Mr Xavier, a 60-year-old accountant, was recently started on allopurinol 100 mg 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 degrees Celsius.

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, 50 years old with hypertension, sees you for 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 results return as below:

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, 45-years-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, which he says he took perhaps "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 a past history of renal stones as well as underlying ischaemic cardiomyopathy for which he is still being followed up with a cardiologist.

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

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

Which is <u>correct</u> 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 uric acid target. Regular blood tests will allow this to be done safely.
C. Advice that colchicine prophylaxis is helpful to prevent gout attacks and increased hydrochlorthiazide to optimize his BP control.
D. Offer to initiate probenecid immediately as allopurinol is ineffective.
E. Start him on allopurinol 300mg once per day and inform he should watch for signs of allergy such as rashes, red eyes or mouth ulcers. If this happens – he should stop allopurinol immediately and 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 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, so 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 having vomiting or diarrhoea, he should continue with colchicine prophylaxis, and to 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 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 144/94 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 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 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. What is the estimated prevalence of non-alcoholic fatty liver disease in Singapore?

A. 5%
B. 10%
C. 25%
D. 40%
E. 50%

22. Approximately what percentage of patients with NAFLD will have non-alcoholic steatohepatitis (NASH)?

A. <10%
B. 10-20%
C. 20-30%
D. 30-40%
E. >50%

23. What is the approved and recommended treatment for NAFLD?

A. Weight loss
B. GLP-1 agonist
C. Vitamin E
D. None of the above
E. All of the above

24. Which of the following is the approved and recommended non-invasive assessment of fibrosis in patients with NAFLD?

A. FIB4
B. APRI
C. Fibrotest
D. MELD score
E. AST/ALT ratio

25. Which of the following is NOT associated with NAFLD?

A. Overweight status
B. Hyperuricemia
C. Obstructive sleep apnoea
D. Gastroesophageal reflux disease
E. Polycystic ovarian syndrome

26. The following are potential non-ischaemic causes of heart failure, except:

A. Chemotherapy and other cardiotoxic medications
B. Heart rhythm-related (e.g., tachycardia-mediated, PVCs, RV pacing)
C. Nutritional supplements (e.g., coenzyme Q10, carnitine, taurine, and antioxidants)
D. Infiltrative cardiac disease (e.g., amyloid, sarcoid, hemochromatosis)
E. Hypertension

27. Recommended treatment for those with HFrEF includes four classes of medications, in addition to diuretics. These include all of the following except:

A. Angiotensin receptor-neprilysin inhibitors (ARNis)
B. Mineralocorticoid receptor antagonists (MRA)
C. Beta-blockers
D. Statins
E. SGLT2 inhibitors

28. The following are true of the use of Biomarkers for prevention, initial diagnosis, and risk stratification, except:

A. Measurement of BNP and NT-proBNP levels in the primary care setting for a suspected cardiac cause of dyspnoea provides incremental diagnostic value to clinical judgement when the cause of dyspnoea is unclear and the physical examination equivocal
B. Higher levels of BNP and NT-proBNP are associated with a greater risk for adverse short- and long-term outcomes in patients with HF
C. Studies have shown incremental prognostic value of these biomarkers to standard approaches of CVD risk assessment
D. Prehospital discharge BNP and NT-proBNP levels are poor predictors of the risk of death or hospital readmission for HF
E. Patients on optimal medical therapy leading to a reduction in BNP and NT-proBNP levels represent a population with improved long-term outcomes compared with those with persistently elevated levels despite appropriate treatment

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. The current four classifications of HF based on LVEF with new terminology include all the following except:

A. HF with reduced ejection fraction (HFrEF) includes people with LVEF ≤40%
B. HF with improved ejection fraction (HFimpEF) includes individuals with previous LVEF ≤40% and a follow-up measurement of LVEF >40%
C. HF with mildly reduced ejection fraction (HFmrEF) includes people with LVEF 41-49% and evidence of increased LV filling pressures
D. HF with preserved ejection fraction (HFpEF) includes individuals with LVEF ≥50% and evidence of increased LV filling pressures
E. HF with severely reduced ejection (HFsrEF) included people with LVEF ≤20%

FPSC 102 "Persons with Intellectual Disability" Answers to 30 MCQs Assessment					
1.	C	11.	E	21.	E
2.	A	12.	E	22.	E
3.	A	13.	A	23.	D
4.	E	14.	A	24.	E
5.	E	15.	E	25.	E
6.	B	16.	D	26.	C
7.	D	17.	A	27.	E.
8.	B	18.	C	28.	B
9.	A	19.	E	29.	E
10.	E	20.	E	30.	E