

ASSESSMENT OF 30 MCQS

FPSC NO : 89
MCQS ON CHRONIC DISEASE MANAGEMENT 2021 UPDATE
Submission DEADLINE: 6 April 2021, 12 NOON

INSTRUCTIONS

- To submit answers to the following multiple choice questions, you are required to log on to the College Online Portal (www.cfps2online.org)
- 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. 140/90 mmHg.
 - B. 135/85 mmHg.
 - C. 130/80 mmHg.
 - D. 125/75 mmHg.
 - E. 120/70 mmHg.
2. What is the cut off of blood pressure for the diagnosis of hypertension that is recommended by MOH Clinical Practice Guideline?
 - A. 140/90 mmHg.
 - B. 135/80 mmHg.
 - C. 130/70 mmHg.
 - D. 125/75 mmHg.
 - E. 120/70 mmHg.
3. Which of the following are the characteristics of masked hypertension?
 - A. High office BP and high home BP.
 - B. Normal office BP and normal home BP.
 - C. High office BP and normal home BP.
 - D. Normal office BP and high home BP.
 - E. High home BP more than three days in a week.
4. What is the conventional definition of Microalbuminuria?
 - A. Albumin excretion between 20 and 200 mg/24 hours.
 - B. Albumin excretion between 30 and 300 mg/24 hours.
 - C. Albumin excretion between 40 and 400 mg/24 hours.
 - D. Albumin excretion between 50 and 500 mg/24 hours.
 - E. Albumin excretion between 60 and 600 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. Six.
 - B. Five.
 - C. Four.
 - D. Three.
 - E. Two.
6. The following statements are TRUE with regards to insulin initiation EXCEPT:
 - A. Insulin therapy should be initiated in patients with symptomatic hyperglycaemia.
 - B. Insulin therapy should be initiated in patients who have uncontrolled HbA1c despite optimising treatment with oral hypoglycaemic agents.
 - C. Common barriers to insulin therapy include stigma and inconvenience, fear of injection and pain, misconception that insulin use will result in greater complications of diabetes.
 - D. The doctor should be prepared to spend time to work with the patient to handle the challenges faced with insulin therapy.
 - E. Insulin therapy should be reserved as a last resort to threaten patients into adherence with their current regime.
7. Which of the following is NOT a barrier to initiation of insulin therapy?
 - A. Cost of insulin therapy.
 - B. Fear of needle and pain.
 - C. Inconvenience and disruption of patient's lifestyle.
 - D. Limited access to diabetes nurse educators.
 - E. Patient denial and limited understanding of diabetes and complications.
8. When initiating patients on insulin therapy, the physician should advise the patients on the following EXCEPT:
 - A. Discontinue all oral hypoglycaemic agents.
 - B. Insulin administration and storage.
 - C. Safe driving.

- D. Sick day management.
- E. Effects of fasting and exercise and changes in insulin requirements.

9. The following strategies can be adopted to assist patients in overcoming the challenges to insulin therapy EXCEPT:

- A. Demonstrate how insulin is administered 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. Attribute the patients' uncontrolled DM on their lifestyle and diet.
- D. Education to raise awareness and understanding of glycaemic levels and desired targets through SMBG training and interpretation.
- E. Empower patients with the knowledge on hypoglycaemia management.

10. If the patient has uncontrolled HbA1c and the basal insulin dose exceeds 0.5units/kg/day, which of the following strategies will not be useful to further optimise their diabetes control?

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

11. All of the following statements regarding the 'hedonic' system are TRUE EXCEPT?

- A. The brain regions responsible are dispersed in the corticolimbic structures.
- B. The primary characteristic of this system is its inability to override the signals from the homeostatic circuits of weight regulation.
- C. This system is non-homeostatic with regard to energy balance.
- D. This system guides food intake based upon the reward value of the food.
- E. This system integrates basic midbrain and hindbrain functions with more complex cortical functions involving arousal at the sight of palatable food items and the procurement of food.

12. Which of the following statements regarding factors leading to obesity is TRUE?

- A. Genome-wide association studies (GWAS) have identified more than 700 independent loci associated with BMI and/or obesity.
- B. Mechanistic studies have demonstrated that there is no link between stress and appetite.
- C. More recent studies have identified a potential role

for the microbial content of the skin.

- D. Twin, family and adoption studies show that the rate of heritability is high, ranging from 80 to 90%.
- E. Displacement of leisure-time physical activities has been shown not to be a factor.

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

- A. Obesity is not benign.
- B. The development of obesity results from abnormal physiology.
- C. Obesity results in negative health consequences.
- D. Obesity increases mortality.
- E. All of the above.

14. Which of the following statements regarding management of obesity is FALSE?

- A. Lifestyle management remains a cornerstone in a multi-pronged approach to the treatment of obesity and dietary modifications is foundational in this management.
- B. Dietary approaches can be broadly categorised into energy- focused, macronutrient-focused, dietary pattern-focused and dietary timing-focused.
- C. Long term diet trials have not shown clear superiority of one diet over another with respect to average weight loss.
- D. Carbohydrates has a greater satiating effect compared with proteins and fats, especially in obese individuals.
- E. The complex and multifactorial nature of obesity means that there is no one-size-fits-all intervention or solution.

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

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

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

16. Mr. X, 40-year-old, smoker with hypertension sees you for routine review. He reports two 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 $\mu\text{mol/L}$, eGFR >90mL/min
 Uric acid 460 mmol/L
 HbA1c 5.4 percent
 Random hypo-count 7.5 mmol/L

He is currently on Amlodipine 5mg OM. He does not drink alcohol except one glass of wine once or twice a year on special occasions. His BMI is 25kg/m².

Which is the MOST APPROPRIATE NEXT STEP?

- A. Offer dietary advice
- B. Offer dietary advice and advise regular exercise
- C. Discuss and offer to initiate urate lowering therapy, ideally with colchicine prophylaxis
- D. Prescribe NSAIDs standby for gout flare
- E. Prescribe prednisolone standby for gout flare

17. Mr Y, 45-year old reports three recent gout attacks in the ankle or knee. BP 144/94 mmHg. You notice a small tophus over the left elbow. He volunteers that two years ago he had taken allopurinol 100mg for a month then 200mg OM for three months but stopped as it “did not help his gout and there was no improvement”.

He did not go back to see his previous GP.

Two weeks ago, he was admitted to the hospital for a gout flare, he had blood test done which include results as below:

Uric acid 620 mmol/L
Creatinine 95 umol/L, eGFR 65mL/min

Which is INCORRECT advice?

- A. Offer to restart allopurinol.
- B. Advise that he will need stepwise up titration of a urate lowering agent to reach uric acid target of ideally < 300 mmol/L. Regular blood tests will allow this to be done safely.
- C. Advise that colchicine prophylaxis is helpful and can be started to prevent gout attacks while titrating urate lowering agent to reach uric acid target.
- D. Advise him that allopurinol is ineffective and should not be started. Offer to initiate febuxostat or probenecid.
- 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.

18. You are seeing Mr. Y 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 as prophylaxis
- B. Colchicine can 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 new medications, he should inform his doctor or pharmacist that he is on colchicine regularly so they can make the necessary adjustments.
- D. If he is having vomiting or diarrhoea, he should omit colchicine prophylaxis; and to only restart when he is well.
- E. Regular colchicine prophylaxis in someone with normal renal function and regular monitoring, can lead to renal failure.

19. Mr. Y, a 60-year-old mechanic was recently started on allopurinol 100mg two months ago and increased to 200mg three weeks ago in your clinic.

He came down with flu four days ago and developed rashes after being given Klacid, flumucil and loratidine by another GP. Today, he returns to your clinic.

Which is the MOST APPROPRIATE NEXT STEP?

- A. Stop Klacid and continue the chronic medications
- B. Prescribe paracetamol for pain relief and switch to Levofloxacin 500mg bd instead
- C. Continue medications and check for Dengue serology
- D. Stop Klacid, flumucil and loratidine
- E. Stop all medications and refer for possible SJS

20. A 40-year old accountant on allopurinol 100mg OM for the past one year reports two recent gout attacks in the last one year. He has no other known past medical history.

His BMI 25 kg/m², BP 144/94mm Hg.

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. Stop Allopurinol during this acute gout attack and start colchicine. Consider checking a baseline creatinine if not recently available.
- B. Continue allopurinol at 100mg OM despite the attack and start colchicine. Consider checking a baseline creatinine if not recently done.
- C. Increase the allopurinol to 200mg OM today and start colchicine. Consider checking a baseline creatinine if not recently done.
- D. Start hydrochlorothiazide for hypertension.
- E. Start Losartan for hypertension.

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

- A. Smoking
- B. Elevated uric acid
- C. Overweight status
- D. Hypertension
- E. Elevated triglycerids

22. Proven and recommended treatment for patients with cirrhosis from NAFLD include:

- 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. MR Elastography
- C. Liver biopsy
- D. Liver function test
- E. Fasting lipids

24. The following are major causes of death among patients with NAFLD over longterm, EXCEPT:

- A. Pancreatic cancer
- B. Acute myocardial infarct
- C. Cerebrovascular accident
- D. Hepatitis flares
- E. Heart failure

25. The followings are common abnormal laboratory markers in patients with NAFLD EXCEPT:

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

26. The following are first line tests in the assessment of suspected heart failure, EXCEPT:

- A. **Electrocardiogram (ECG):** important for identifying evidence of acute or prior myocardial infarction or acute ischemia, also rhythm abnormalities, such as atrial fibrillation.
- B. **Chest x-ray:** characteristic findings are cardio-thoracic width ratio above 50 percent, cephalization of the pulmonary vessels, Kerley B-lines, and pleural effusions.

C. **Blood test:** Cardiac troponin (T or I), complete blood count, serum electrolytes, blood urea nitrogen, creatinine, liver function test and brain natriuretic peptide (BNP). BNP (or NT-proBNP) level adds greater diagnostic value to the history and physical examination than other initial tests mentioned above.

D. **Ambulatory blood pressure:** to determine overall mean blood pressure control and diurnal variability

E. **Transthoracic Echocardiogram:** to determine ventricular function and hemodynamics.

27. A 65 year old gentleman with known chronic heart failure presents to your clinic with worsening shortness of breath. His current medication regimen comprises an ACE-inhibitor, beta blocker and a loop diuretic. He has mild ankle oedema, an elevated jugular venous pressure and bibasal crepitations. His blood pressure is 145/82 mmHg. Which of the following would be the next appropriate management?

- A. Add digoxin
- B. Add spironolactone
- C. Discontinue the beta blocker
- D. Discontinue the ACE-inhibitor
- E. Add rosuvastatin

28. A 67 year old lady with stable reduced ejection fraction chronic heart failure presents to your clinic requesting a review of her medications. She has a history of ischaemic heart disease as a cause of her heart failure. She wants to reduce her pill burden. Which of the following medications has no proven mortality benefit?

- A. Entresto (sacubutril/valsartan)
- B. Nitrates and hydralazine
- C. Spironolactone
- D. Digoxin
- E. Bisoprolol

29. As a primary care physician, you refer your patient with suspected heart failure for a direct access transthoracic echo to determine the left ventricular ejection fraction (EF). Which of the following is the correct formula for calculating the EF?

- A. $EF = \frac{[\text{end systolic volume (ESV)} - \text{end diastolic volume (EDV)}]}{\text{EDV}}$
- B. $EF = \frac{[\text{Heart rate (HR)} \times \text{end diastolic volume (EDV)}]}{\text{end systolic volume (ESV)}}$
- C. $EF = \frac{[\text{Heart rate (HR)} \times \text{end systolic volume (ESV)}]}{\text{end diastolic volume (EDV)}}$
- D. $EF = \frac{[\text{end diastolic volume (EDV)} - \text{end systolic volume (ESV)}]}{\text{EDV}}$
- E. $EF = \frac{[\text{end diastolic volume (EDV)} - \text{end systolic volume (ESV)}]}{\text{Heart rate (HR)}}$

30. Very common causes of decompensation in a stable patient with heart failure include all of the following EXCEPT:

- A. Excess intake of sodium in the diet
- B. Inappropriate reduction in medications
- C. Lack of physical activity
- D. Lack of medication compliance
- E. Reduced intake of water

FPSC 84 “COVID-19: Singapore Experience” Answers to 30 MCQs Assessment					
1.	E	11.	E	21.	E
2.	A	12.	E	22.	E
3.	C	13.	E	23.	A
4.	D	14.	E	24.	A
5.	A	15.	E	25.	B
6.	E	16.	E	26.	C
7.	A	17.	D	27.	E
8.	C	18.	D	28.	D
9.	B	19.	A	29.	A
10.	A	20.	C	30.	B

FPSC 85 “Childhood Developmental Screening” Answers to 30 MCQs Assessment					
1.	E	11.	B	21.	E
2.	C	12.	C	22.	C
3.	A	13.	B	23.	D
4.	C	14.	B	24.	E
5.	D	15.	A	25.	C
6.	B	16.	A	26.	C
7.	E	17.	C	27.	E
8.	E	18.	C	28.	B
9.	E	19.	C	29.	A
10.	A	20.	E	30.	A

FPSC 86 “Contemporary Type 2 Diabetes Management” Answers to 15 MCQs Assessment					
1.	C	6.	D	11.	D
2.	A	7.	D	12.	E
3.	B	8.	C	13.	C
4.	A	9.	E	14.	E
5.	B	10.	E	15.	A

FPSC 87 “Person Centred Diabetes Care and Meal Planning for the Older Person” Answers to 15 MCQs Assessment					
1.	A	6.	C	11.	E
2.	E	7.	D	12.	D
3.	E	8.	E	13.	C
4.	A	9.	B	14.	B
5.	E	10.	E	15.	E