ASSESSMENT OF 15 MCQS

FPSC NO : 96
MCQS ON UPDATES IN DM AND CKD MANAGEMENT: "ARE SGLT2 INHIBITORS THE ANSWER?"
SUBMISSION DEADLINE: 30 NOVEMBER 2021, 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. Current on-label clinical indications for SGLT2 inhibitors include all of the following, except:

A. Type 2 diabetes
B. Type 2 diabetes mellitus and albuminuric kidney disease (albuminuria of ≥200 mg/g of creatinine plus eGFR of 25-90 ml/min per 1.73 m^2)
C. Nondiabetic albuminuric kidney disease (albuminuria ≥200 mg/d plus eGFR of 25-75 ml/min per 1.73 m^2)
D. Type 2 diabetes with cardiovascular disease
E. Heart failure with preserved ejection fraction, with or without diabetes

2. Regarding the major SGLT2i renal outcome trials, which statement is false?

A. Dapagliflozin reduced primary composite end point by 39 percent
B. Canagliflozin reduced primary composite end point by 30 percent
C. No benefits were seen for patients without diabetes
D. We now have data supporting benefits for patients with eGFR >25 ml/min/1.73 m^2
E. The majority of patients were already on maximally tolerated RAAS-blockade

3. Select the statement that is false:

In the heart failure (reduced ejection fraction) trials,

A. Drug doses tested were dapagliflozin at 10 mg and empagliflozin at 25 mg
B. More than half the patients in DAPA-HF did not have diabetes at baseline
C. Relative risk reduction for hospitalisation for heart failure was 30 percent in both DAPA-HF and EMPEROR-Reduced
D. Patients in the treatment arm of DAPA-HF had benefits in all-cause mortality and symptoms based on KCCQ
E. Benefits in reducing hospitalisation for heart failure were similarly seen in the CVOTs EMPA-REG outcome, DECLARE-TIMI, and CANVAS programme

4. Strategies to overcome clinical inertia should include:

A. Excluding the patient from decision-making
B. Considering therapy change only if HbA1c exceeds 10 percent
C. Selecting therapy based on pill cost rather than value-based outcomes
D. Keeping up to date with trials and real-world evidence
E. Leaving the treatment escalation to another healthcare provider

5. The safety data from the SGLT2i heart failure and renal outcome trials showed

A. Increased rates of hypoglycaemia, especially in those without diabetes
B. Increased rates of lower limb amputation
C. Increased rates of mycotic genital infections
D. Increased rates of bladder cancer
E. Increased rates of acute kidney injury

6. A 60-year-old man with type 2 diabetes and hypertension for 20 years presents for chronic kidney disease follow-up. His office blood pressure is 138/82 mmHg. Serum creatinine is 98 µmol/L, urine albumin to creatinine ratio is 45 mg/g, serum LDL cholesterol 1.4 mmol/L, and glycated haemoglobin HbA1c is 7.0 percent. He takes metformin 850 mg twice daily, gliclazide 80 mg twice daily, irbesartan 300 mg once daily, atorvastatin 40 mg nightly, and aspirin 100 mg once daily. Which of the following is the most appropriate management?

A. Omeprazole 20 mg once daily
B. Ezetimibe 10 mg once daily
C. Fenofibrate 100 mg once daily
D. Dapagliflozin 10 mg once daily
E. Lisinopril 10 mg once daily

7. A 65-year-old post-menopausal woman with type 2 diabetes and hypertension for more than 15 years presents for follow-up. She has no complaints. Her office blood pressure is 125/74 mmHg. Serum creatinine is 86 µmol/L, urine albumin to creatinine ratio is 250 mg/g, serum LDL cholesterol 1.4 mmol/L, and glycated haemoglobin HbA1c is 7.5 percent. Urinalysis shows eight white blood cells per high-powered field and bacteria. She takes metformin 850 mg twice daily, linagliptin 5 mg once daily, perindopril 5 mg once daily, indapamide 1.25 mg once daily, simvastatin 40 mg nightly, and aspirin 100 mg once daily. Which of the following is the most appropriate management?

A. Ezetimibe 10 mg once daily
B. Empagliflozin 10 mg once daily
C. Insulin mixtard 10 units once daily
D. Amlodipine 10 mg once daily
E. Ciprofloxacin 500 mg twice daily

8. A 75-year-old man with a history of type 2 diabetes, hypertension, and coronary artery disease presents for follow-up. He is well. The office blood pressure is 144/60 mmHg. Urine albumin to creatinine ratio is 700 mg/g, serum creatinine is 190 µmol/L, serum LDL cholesterol is 1.32 mmol/L, serum potassium is 5.0 mmol/L, and glycated haemoglobin HbA1c is 7.5 percent. The estimated GFR declined from 45 to 29 mL/min per 1.73 m^2 over five years. He takes dapagliflozin 10 mg once daily, linagliptin 5 mg once daily, metformin 500 mg once daily, losartan 50 mg once daily, amlodipine 10 mg nightly, atorvastatin 40 mg nightly, ezetimibe 10 mg once daily, bisoprolol 5 mg once daily, and aspirin 100 mg once daily. Which of the following is the most appropriate management?

A. Stop metformin
B. Increase losartan
C. Start fenofibrate
D. Stop dapagliflozin
E. Stop ezetimibe

9. A 65-year-old man with congestive heart failure from ischaemic cardiomyopathy with a left ventricular ejection fraction of 30 percent, type 2 diabetes, and hypertension presents for follow-up. He becomes short of breath on walking a short distance and had been admitted twice in the last year for acute decompensated heart failure. The office blood pressure is 100/60 mmHg and pulse rate is 62 beats per minute. Urine albumin to creatinine ratio is 29 mg/g, serum creatinine is 100 µmol/L, serum LDL cholesterol is 1.20 mmol/L, and glycated haemoglobin HbA1c is 7.5 percent. The estimated GFR is 100 mL/min per 1.73 m^2. He takes lisinopril 40 mg once daily, metformin 850 mg twice daily, linagliptin 5 mg once daily, atorvastatin 40 mg nightly, ezetimibe 10 mg once daily, carvedilol 25 mg twice daily, and aspirin 100 mg once daily. Which of the following is the most appropriate management?

A. Furosemide 40 mg once daily
B. Gliclazide 60 mg once daily
C. Gemfibrozil 300 mg once daily
D. Clopidogrel 75 mg once daily
E. Empagliflozin 10 mg once daily

10. A 50-year-old woman with hypertension and biopsy-proven IgA nephropathy diagnosed 15 years ago presents for follow-up. The office blood pressure is 120/70 mmHg and pulse rate is 68 beats per minute. Urine albumin to creatinine ratio is 900 mg/g, serum creatinine is 100 µmol/L, and serum LDL cholesterol is 1.20 mmol/L. The estimated GFR is 57 mL/min per 1.73 m^2. Serum creatinine and albuminuria has been in the same range for the past two years. She takes ramipril 20 mg once daily, amlodipine 10 mg nightly, atorvastatin 40 mg nightly, atenolol 50 mg once daily, and aspirin 100 mg once daily. Which of the following is the most appropriate management?

A. Prednisolone 40 mg once daily
B. Mycophenolate mofetil 500 mg twice daily
C. Losartan 50 mg once daily
D. Dapagliflozin 10 mg once daily
E. Verapamil 180 mg once daily

11. A 48-year-old man with chronic kidney disease (CKD), secondary to diabetic nephropathy returns for a follow-up visit. He has a 10-year history of type 2 diabetes mellitus, complicated by diabetic retinopathy and peripheral vascular disease. His latest investigations showed an estimated glomerular filtration rate of 50ml/min/1.73m^2 (stable over the past six months), with urine protein creatinine ratio of 2.8g/day. His blood pressure (BP) averages 148/94 mmHg on a regimen of lisinopril 10mg every morning, amlodipine 10 mg every morning, and atenolol 50mg every morning. Which of the following is the most accurate with regards to a target of systolic BP <120 vs <140 mmHg?

A. Incidence of acute kidney injury is equal in both groups
B. All-cause mortality is reduced at lower systolic BP goal
C. Incidence of end-stage kidney disease is higher at lower BP goal
D. Incidence of cardiovascular event is increased in patients with lower BP goal
E. CKD progresses more slowly at lower BP goal

12. Which of the following would be the most appropriate blood pressure-lowering therapy to slow CKD progression?

A. Increase atenolol to 75 mg every morning
B. Change amlodipine 10 mg every morning to nifedipine LA 30 mg twice daily
C. Increase lisinopril to 20 mg every morning
D. Add telmisartan 20 mg every morning to current regimen
E. Add hydrochlorothiazide 25 mg every morning to current regimen

13. A 60-year-old lady who has a history of hypertension and hyperlipidemia is seen in clinic. Laboratory evaluation demonstrates her estimated glomerular filtration rate as 23 ml/min/1.73m^2, serum potassium of 5.1mmol/L and serum bicarbonate of 18mmol/L. She has been reading up on lifestyle modifications as she has been worried about the progression of her kidney disease. Which of the following is not suitable for her?

A. Attending Zumba classes lasting an hour thrice weekly
B. Cutting down on cigarette smoking
C. Embarking on a DASH diet
D. Embarking on a meatless diet one day per week
E. Cutting down salt intake to <2g/day

14. Which one of the following is NOT accurate in treating metabolic acidosis associated with CKD?

A. Sodium bicarbonate supplementation poses a risk of worsening hypertension
B. Modest dietary animal protein restriction reduces kidney progression
C. Increasing daily fruit intake to four servings is better at improving metabolic acidosis than sodium bicarbonate 500 mg every morning
D. Dietary supplementation with sodium bicarbonate decreases bone mineral density
E. Sodium bicarbonate supplementation worsens peripheral oedema

15. A 55-year-old man with stable chronic kidney disease secondary to diabetic kidney nephropathy is being counselled on the potential benefits and risks of starting sodium-glucose co-transporter 2 (SGLT2) inhibitors. Risks of SGLT2 inhibitor therapy include all of the following except:

A. Urinary tract infections
B. Increased risk of kidney stones
C. Euglycemic ketoacidosis
D. Genital mycotic infections
E. Postural hypotension due to diuresis from glycosuria