

ASSESSMENT OF 30 MCQS

FPSC NO : 94

MCQS ON 2021 UPDATE: MALNUTRITION, MUSCLE LOSS AND SARCOPENIA
Submission DEADLINE: 13 July 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

- A 75-year-old lady noticed difficulty climbing stairs in the past three months. Which of the following is essential for the diagnosis of 'Possible Sarcopenia' by Asian Working Group for Sarcopenia (AWGS) 2019 criteria?**
 - Chair stand test >12s
 - Handgrip strength <20kg
 - History of recurrent falls
 - Low muscle mass on DXA
 - Usual gait speed <0.8 m/s
- In which of the following circumstances would the use of SARC-F to screen for sarcopenia in a 65-year-old lady be inappropriate?**
 - Anorexia
 - Body mass index of 22 kg/m²
 - Chronic heart failure
 - Osteoporosis
 - Type 2 Diabetes Mellitus
- Which of the following about proper measurement of handgrip strength is correct?**
 - Average value of 2-3 trials
 - Flexed elbow in a standing position
 - Gripping hard for at least 10s
 - Single attempt from the dominant hand
 - Sitting position using Jamar dynamometer
- Which of the following is the recommended modality to measure muscle mass in clinical practice?**
 - Bioelectrical impedance analysis (BIA)
 - Calf circumference
 - Dual-energy X-ray Absorptiometry (DXA)
 - Magnetic Resonance Imaging (MRI)
 - Ultrasound
- Which of the following exercises is most beneficial for increasing muscle mass in older adults with Sarcopenia?**
 - Aerobic
 - Balance
 - Flexibility
 - Resistance
 - Taiji
- What is the prevalence of risk of malnutrition in community-dwelling older adults in Singapore?**
 - One in two
 - One in three
 - One in five
 - Four in five
 - Two in three
- What is the recommended protein requirement for healthy older adults?**
 - 0.8 to 1.0 g/kg body weight
 - 1.0 to 1.2 g/kg body weight
 - 1.2 to 1.5 g/kg body weight
 - 1.5 to 2.0 g/kg body weight
 - More than 2.0 g/kg body weight
- Based on the GLIM criteria, what are the three phenotypic criteria for malnutrition?**
 - Weight loss, low BMI, malabsorption
 - Poor oral intake, weight loss, low BMI
 - Weight loss, low BMI, reduced muscle mass
 - Chronic illness, poor oral intake, low BMI
 - Inflammation, poor oral intake, low BMI
- Which of the following is not a finding in the SHIELD study?**
 - Improved survival and hospital readmission
 - Improved weight and mid-upper arm circumference
 - Improved vitamin D levels
 - Improved functional outcomes

- E. Increased calf circumference among older adults with low ASMI

10. Which statement is incorrect about HMB?

- A. HMB is an active metabolite of leucine
- B. HMB is a potent stimulator of protein synthesis
- C. HMB is an inhibitor of protein breakdown
- D. HMB has been studied in healthy older adults or immobilised and recovering patients
- E. HMB is easily obtained from diet alone

11. The SIGNS study by Duke-NUS 2018 found that up to one in two older adults >80 years of age may lose the ability to live independently, require a dedicated carer or placement into institutional care. This is mainly due to:

- A. Social isolation
- B. Anorexia of ageing
- C. Physical weakness and cognitive impairment
- D. Polypharmacy
- E. Early retirement

12. Muscle health is a modifiable factor of importance in enabling independent living and ensuring good clinical outcomes during and after acute illness or injury. Which of the following would be in keeping with good muscle health in older adults in Singapore based on the Asian Working Group for Sarcopenia 2019?

- A. A body mass index of >18.5 and <23.5
- B. A gait speed over 6-m of >0.8 m/s
- C. A 5-chair stand test time of >12 seconds
- D. A calf-circumference of <33cm for men
- E. An appendicular skeletal mass index (ASMI) of >7 kg/m²

13. Due to the ageing process, there is a loss of muscle mass over time, predominantly affecting Type-II muscle fibres. Which of the following best describes this process?

- A. Significant loss of muscle mass starts from >80 years of age
- B. From age of 40 onwards, there is a loss of 15 percent of muscle mass every decade
- C. Studies suggest that there is a loss of about eight percent of muscle mass each decade from age 70 onwards
- D. Detailed imaging and muscle biopsy studies have shown no change in muscle quality over time
- E. Longitudinal studies suggest a loss of up to 30 percent of muscle mass by the age of 80 from peak muscle mass, without additional illness or trauma

14. Muscle health is intimately linked with nutritional health. Local studies in

community-dwelling older adults have confirmed this finding. Which of the following is the most appropriate clinical management for the patient described?

- A. In older patients who are screened positive with the SARC-F questionnaire, they can be diagnosed with probable sarcopenia and no further assessment is necessary before starting oral nutritional supplements
- B. Patients who have low gait speed or low muscle strength must be referred to the hospital for dual-energy x-ray absorptiometry (DEXA) before they can be treated for sarcopenia
- C. Sarcopenia needs to be managed in a treat to target (TTT) manner for best outcomes. This includes the intensity and volume of exercise, daily protein, energy and other nutrient requirements.
- D. The use of leucine supplementation has been shown in clinical trials to improve muscle health in nourished community-dwelling older adults with low muscle mass and/or strength
- E. Screening for malnutrition is important in older adults with sarcopenia as there are some data to suggest that the combination of both doubles the risks of mortality post discharge from acute geriatric wards compared with the presence of malnutrition alone

15. Progressive resistance exercise training (RET) is a key part of the management of sarcopenia. Which of the following is the best way to optimise this?

- A. Ensure that the patient takes at least 0.8 g/kg body weight of protein per day
- B. Start with 60 percent of 1-repetition maximum of intensity to maximise the likelihood of sustained improvements of muscle strength with RET
- C. Reassure the patient that there is no need for stretching or warm-up exercises
- D. For patients whom are very frail or unmotivated, focusing on the intensity or volume of RET will provide the best outcomes in terms of strength and function
- E. Advise the patient to go on a calorie restricted diet

FPSC 89 “Chronic Disease Management 2021 Update” Answers to 30 MCQs Assessment					
1.	C	11.	B	21.	A
2.	A	12.	A	22.	D
3.	D	13.	E	23.	C
4.	B	14.	D	24.	D
5.	E	15.	E	25.	C
6.	E	16.	C	26.	D
7.	D	17.	D	27.	B
8.	A	18.	E	28.	D
9.	C	19.	E	29.	D
10.	E	20.	B	30.	E