



## THE COLLEGES OF MEDICINE OF SOUTH AFRICA

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Examination for the Sub-specialty Certificate in Geriatric Medicine of the  
College of Physicians of South Africa



26 July 2018

Paper 1

(3 hours)

*All questions are to be answered. Each question to be answered in a separate book (or books if more than one is required for the one answer)*

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- 1
- a) Discuss the social and economic factors that would likely affect a 72-year-old South African widow. She was born and raised in rural Eastern Cape, moving into the city at age 30 years with her husband who was a migrant worker, widowed three years ago and resides in a multi-generational household. She has type 2 diabetes mellitus which is poorly controlled. (10)
  - b) Discuss the predictable changes of normal ageing that affect gait and balance and how these would increase fall risk in the older person. (10)
  - c) You are asked for a second opinion regarding the management of an 85-year-old widow with histologically confirmed metastatic ovarian carcinoma (radiology showing bilateral lung, liver and extensive abdominal/pelvic lesions with ascites). Prior to this admission she had failed therapy with both 1<sup>st</sup> and 2<sup>nd</sup> line chemotherapy agents. She has now presented with complete bowel obstruction, and renal impairment due to bilateral ureteric obstruction. Two attempts by the urologist to deploy ureteric stents have failed due to extensive tumour occlusion. Her body mass index is 13kg/m<sup>2</sup>. The patient is comatose with an aspiration pneumonia. Her oncologist and her two children have suffered a fallout because the oncologist has declined to refer their mother for dialysis, as well as declined admitting her to the intensive care unit. Discuss your approach to, and management of this situation. (10)
- [30]
- 2
- A 71-year-old man with a 10 year history of poorly controlled hypertension is brought to you by his daughter because she has noticed that over a period of six months that he appears confused at times and she is concerned that his memory is deteriorating even when he seems to be having a good day. He is still living alone but she took over managing his finances and bringing him cooked meals nine months ago because she felt he was no longer coping. She feels that his walking is slower and he has reported a few falls. Recently he has been agitated at times and verbally aggressive. The previous day he seemed more confused and was talking about the people sitting on his couch when there were none
- a) What is your primary diagnosis and what other diagnoses would you consider? What physical findings on neurological examination would you be looking for to help you differentiate between these diagnoses? (10)

- b) What findings would you expect on cognitive assessment of the different domains of cognitive function and are there any cognitive abilities that would be disproportionately more severely impaired in your primary diagnosis. How would an MRI of the brain help you in your differential diagnosis? (10)
  - c) Considering the primary diagnosis and all the issues mentioned, what pharmacological interventions would you recommend?
    - i) What improvements would you be looking for with these interventions? (5)
    - ii) How would you counsel his daughter about his prognosis, care and managing the aggression? (5)
- [30]

- 3 An 82-year-old man is referred to you by his general practitioner. He had a fall in his bathroom sustaining lacerations and bruising to the face. He gives a history of osteoarthritis of his knees, stable ischaemic heart disease, hypertension, and prostatism with urgency of micturition. Current medication includes bisoprolol, perindopril, a thiazide diuretic and tamsulosin. He is awake and alert and interactive. He is normotensive and with pulses normal to palpation. Mini-mental state examination scores 24/30. There are no focal neurological abnormalities apart from mild proximal muscle weakness
- a) Discuss the possible implication of his MMSE score on his mobility and risk of falling. What bedside tests can be done to assess this? What intervention could be considered to reduce the risk of falling in a cognitively impaired patient? (10)
  - b) What bedside test would you perform to assess (6)
    - i) Frailty?
    - ii) Sarcopenia?
  - c) Which special investigations would you consider in this patient? (6)
  - d) Discuss your approach to management with special reference to interventions aimed at improving mobility and reducing falls risk as well as interventions to reduce frailty. (8)
- [30]

- 4 A 75-year-old man, Mr. C, has been a patient of yours for 18 months, having been originally referred by a neurologist with a four-year history of progressive supranuclear palsy. He is also known with chronic hypertension. At his usual 6-month follow up visit with his wife, they report ongoing deterioration. He is now having difficulty with reading his novels, which is his main hobby. His wife has noticed the odd occasion where he has choked on fluids and he has had 10 falls since his last visit. Most of the falls were trips and stumbles resulting in bruises but one was a bad fall when he tried to get into the shower on his own and he fell against the built in tiled shower seat resulting in 4 fractured ribs. Mrs. C expresses increasing concern about leaving him alone at home as he doesn't listen and tries to do chores that he knows he cannot do. He also insists on going upstairs to the toilet as this toilet has a basin close by which aids him to stand up once finished.
- Mr. C is financially secure and is a member of a comprehensive medical aid plan. When you ask him, he does not want to even consider moving to a retirement complex with a 24 hours healthcare facility.
- On examination, he has poor eye movements with much reduced downward gaze, worsening of the frontalis over activity and when you ask him to sip from a glass of water, he swallows slowly but then coughs. His gait has also deteriorated and he shuffles and is very rigid. His timed up and go test (TUG) is 30s with no aid. His MMSE score is 24/30. In addition, his lying blood pressure is 135/80mmHg, 120/70mmHg on sitting and 100/70mmHg on standing immediately (with a complaint of dizziness) and remains at 100/70mmHg after 3 minutes. His medications include perindopril/indapamide 4/1.25mg once daily, calciferol weekly, calcium 500mg daily, and carbidopa levodopa (25/100mg) 1 three times a day

- a) What are your new concerns regarding Mr. C and how would you optimise your management of his general condition and medications? (7)
  - b) You decide to get the multidisciplinary team involved to help Mr. and Mrs. C. Who do you call, and what would you like each member to assess and how do you think they will contribute to his further management and overall quality of life and prognosis? (20)
  - c) Discuss briefly the role of a percutaneous endoscopic gastrostomy (PEG) in this patient. (3)
- [30]