ABCDE clinical challenge

Questions for this month's clinical challenge are based on articles in this issue. The style and scope of questions is in keeping with the multiple choice questions of the RACGP Fellowship exam. The quiz is endorsed by the RACGP Quality Improvement and Continuing Professional Development Program and has been allocated 4 Category 2 points per issue. Answers to this clinical challenge are available immediately following successful completion online at www.gplearning.com.au. Clinical challenge quizzes may be completed at any time throughout the 2011–13 triennium, therefore the previous months answers are not published.

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Single completion items

CPD 

DIRECTIONS Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the most appropriate statement as your answer.

Case 1
Edith Hui-Zhong Wang

Edith, 71 years of age, is a Chinese calligraphy enthusiast who lives with her son and his family. She has consulted you previously regarding minor ailments. Her son, Charles, approaches you regarding his mother's recent altered behaviour, including leaving department stores without paying for items. He asks you if she should be 'tested for dementia'.

Question 1

Which of the following steps is the most useful screening tool for assessing cognitive impairment in Edith:

A. a questionnaire such as MMSE, GPCOG or RUDAS
B. pathology investigations such as FBC, LFT, MSU and thyroid function
C. referral for neuropsychological assessment
D. reviewing records of previous memory complaints
E. EEG and CT scan of brain without contrast.

Question 2

Detailed assessment confirms Charles' concerns and a diagnosis of mild Alzheimer disease is made. Which of the following is true regarding dementia and Alzheimer disease:

A. mild Alzheimer disease is completely reversible
B. most cases of dementia have a strong genetic basis
C. acetylcholinesterase inhibitors may be trialled in Alzheimer disease
D. acetylcholinesterase inhibitors are contraindicated in Alzheimer disease
E. memantine is associated with significant improvement in Alzheimer disease.

Question 3

Six months later, Charles and Edith consult you, as she is frustrated at her inability to learn new calligraphy brushstrokes. Edith is now considering quitting her involvement in the local artists' corner. Which of the following statements is best supported by current evidence:

A. social engagement has no benefit beyond placebo for patients with dementia
B. social engagement increases depression due to embarrassment in patients with dementia
C. social engagement may improve cognitive functioning in patients with dementia
D. gradual functional deterioration in patients with dementia is a sign of incurrent illness
E. subjective memory complaints are likely to be over-reported by patients with dementia.

Question 4

Charles asks whether he is able to reduce his risk of developing cognitive decline. Which of the following will NOT reduce the risk of dementia:

A. regular Sudoko and crossword puzzles
B. optimal blood pressure (BP) control
C. cessation of smoking
D. apolipoprotein E testing
E. regular exercise.

Case 2
Barry Tolson

Barry, 76 years of age, is a usually healthy veteran who lives alone. He consults you after a fall down the steps to the train station in the rain. He is uninjured, and states he was jostled by other commuters. He denies any other falls in the past 12 months.

Question 5

Which of the following tests may be useful to assess Barry's current falls risk:

A. Otago Exercise Programme
B. Timed Up and Go test
C. DEXA scan for osteoporosis risk
D. stress echocardiogram
E. Holter monitor.

Question 6

Barry asks if he should have additional investigations or treatment. Which course of management has the best evidence for a patient such as Barry:

A. referral to a specialist falls clinic for intensive intervention
B. expectant management, together with general safety advice
C. occupational therapy home visit to reduce hazards
D. hip protectors and walking aid
E. enrolment in an ongoing, challenging balance exercise program.

Question 7

Three months later Barry returns with a history of three more falls in public areas. He states that he cannot explain why he had fallen. The results of his recent pathology are available, and indicate that his serum vitamin D levels are 53 nmol/L (N>60 nmol/L). Which management strategy has the best evidence:

A. commence high dose vitamin D supplementation daily immediately
B. check for hypercalcaemia before commencing high dose vitamin D
C. recommend more outdoor activity such as walks or gardening
D. commence calcium and high dose vitamin D supplementation daily

E. recheck electrolytes and eGFR before commencing high dose vitamin D.

Question 8

Which course of falls management is now most likely to be beneficial for a patient such as Barry:

A. check for compliance with previous management strategy
B. referral to a geriatrician if he fails the single leg stance test
C. cardiologist referral with a view to cardiac pacing for carotid sinus syndrome
D. complete full physical examination and falls clinic referral
E. Enhanced Primary Care plan to implement further prevention strategies.

Case 3
George Mitzotakis

George, 65 years of age, attends for the results of his annual blood tests from a week ago. He states he has been increasingly tired since retirement 3 months ago. Bloods show: K+ 5.9 (N<5.0 mEq/L), creatinine 240 (N<110 µmol/L) and eGFR 50 (N>60 mL/min/1.73 m^2), fasting BGL 6.2 (N<6.0 mmol/L), LDL 4.0 (N<3.5 mmol/L). His BP today is 155/80 mmHg. Previous blood tests have been within normal parameters. He denies any recent medication use.

Question 9

What is the correct next step in your management of this situation:

A. diagnose George with chronic kidney disease (CKD)
B. diagnose George with acute renal failure
C. plot a rate of George's eGFR decline against national values
D. diagnose George with age related kidney function decline
E. re-check George's serum electrolytes and eGFR at once.

Question 10

How is a diagnosis of CKD made:

A. eGFR <60 mL/min/1.73 m^2, hypertension and microalbuminuria
B. eGFR <60 mL/min/1.73 m^2 on three occasions over a 3 month period
C. eGFR <60 mL/min/1.73 m^2 on two occasions if associated with macroalbuminuria
D. eGFR <60 mL/min/1.73 m^2 on several occasions and cause of kidney disease known
E. CKD is primarily a clinical diagnosis.

Question 11

Further investigation and management reveals George is suffering from Stage 3a CKD with microalbuminuria due to type 2 diabetes. You are considering commencing an ACEI as his BP has been consistently around 155/80 mmHg. Which of the following is true regarding the management of BP in George:

A. use of ACEIs is contraindicated in the presence of microalbuminuria
B. the new BP target is <140/90 mmHg
C. the new BP target is <120/80 mmHg
D. the new BP target is <130/80 mmHg
E. a systolic BP <130 mmHg is associated with increased mortality.

Question 12

Which of the following is true of hyperparathyroidism secondary to CKD:

A. it can be suppressed by phosphate binder supplementation
B. it can be reduced with bisphosphonate use for fracture risk
C. it can be suppressed by vitamin D supplementation
D. it cannot be safely managed in general practice
E. it is associated with a decrease in cardiovascular mortality.

Case 4
Mary O'Doherty

Mary, 85 years of age, is a new patient to your practice. She reports she has become increasingly weak, with low physical activity, gradual weight loss and slower walking over the 12 months after her husband's death. Mary's medication list reads: perindopril 2.5 mg/mane, atorvastatin 10 mg/nocte, paracetamol 1 g/QID/prn, aspirin EC 100 mg/mane.

Question 13

Which of the following is most likely to be true of Mary and her management goals:

A. she is a robust elderly woman, the goal is to prolong life
B. she is a frail elderly woman, the goal is to palliate symptoms
C. she is a robust elderly woman, the goal is to reduced cardiovascular (CVS) risk
D. she is likely to have depression and the goal is to alleviate suffering
E. she is a frail elderly woman, the goal is to maintain function.

Question 14

Mary's BP is 140/80 mmHg (sitting) and 125/80 mmHg (standing). A recent eGFR is 38 (N>60 mL/min/1.73 m^2). What is your assessment regarding the use of perindopril:

A. perindopril can be continued to reduce progression of renal disease
B. perindopril cessation will improve renal function
C. perindopril can be withdrawn safely as she is at risk of falling
D. perindopril can be continued to reduce CVS risk
E. perindopril can be withdrawn and replaced with low dose amlodipine.

Question 15

Mary reports she was diagnosed with dyslipidaemia at 73 years of age and commenced atorvastatin and aspirin at that time. What is your assessment of regarding the use of these medications and her CVS risk?

A. CVS risk is high, medication use should depend on Mary's finances
B. CVS risk is high, medications are unlikely to modify the outcome
C. CVS risk is high, both medications should continue indefinitely
D. CVS risk is low, both medications are unlikely to prolong life
E. CVS risk is low, medications can be withdrawn safely.

Question 16

Mary reports she has taken paracetamol occasionally for many years for stiff hands and on sleepless nights. What is your assessment regarding the use of paracetamol by Mary:

A. paracetamol should be continued as it alleviates symptoms
B. paracetamol should be ceased in favour of lifestyle modification
C. paracetamol should be replaced with melatonin tablets at night
D. the use of all sleeping aids should be discouraged in the elderly
E. trial of glucosamine 1.5 g/TDS may be beneficial for joint stiffness.