

SCE QUESTIONS

BGS TRAINEES WEEKEND CARDIFF 22ND JANUARY 2017

1. A 93 year old woman with known Alzheimer's Dementia was admitted with a fractured hip. She underwent hemiarthroplasty to repair it. Discussion with the care home suggests she can sometimes be resistive to care and does not always recognise her own family members. Prior to admission she was mobilising with assistance of one. You are asked to speak with her family who are to very assertive in their statement that she is to be 'made to walk again'.

What is the next best step?

- A) Early transfer to an Intermediate Care type unit: she will benefit from specialist Comprehensive Geriatric Assessment
- B) Immediate discharge to same care home: her diagnosis of dementia means her rehabilitation potential is limited.
- C) Immediate discharge to same care home with Community Physiotherapy: likely to do better in her own home environment.
- D) Inpatient orthogeriatric rehabilitation: fewer moves will lesson the chance of developing delirium and improve functional outcome
- E) Multidisciplinary Assessment on the Hip Fracture Ward: to ensure a person centred rehabilitation plan

2. An 83 year old man with COPD, Ischaemic Heart disease and multiple falls. He attends Emergency Dept following a fall; he has a cough productive of green sputum, a temperature of 37.4 and pulse 100 beats per minute, Saturations 90% on room air, BP 138/78. He lives alone and has no home care. The patient tells you he wants to go home; his daughter (who lives 120 miles away) is distressed and says he cannot manage at home and must be admitted.

Which is the most appropriate management plan?

- A) Admit to an acute unit for medical treatment: he has evidence of an acute illness
- B) Admit to an Intermediate Care bed: he needs a place of safety to assess his needs
- C) Home with antibiotics and analgesia: his wishes over ride his daughters concerns
- D) Home with early follow up in the Falls clinic and referral to the community based COPD team
- E) Multidisciplinary assessment in ED to assess his needs

3. The gold standards framework for palliative care encourages doctors to ask the question. 'Would you be surprised if this patient died in the next 6 months?' If the doctor is unsure it suggests looking for clinical end of life and disease related indicators. Regarding dementia the disease related indicators do NOT include:

- A) Onset of dementia five or more years ago
- B) Recurrent febrile episodes or infections
- C) Unable to dress, walk or eat without assistance
- D) Urinary and faecal incontinence
- E) Worsening eating problems, needing puréed/ soft diet or supplements

4. 1% of the population dies each year. An average GP would expect 20 deaths per year from an average list. Therefore the approximate number of deaths per year due to frailty/co morbidity/ dementia would be:

- A) 2
- B) 4
- C) 6
- D) 8
- E) 10

5. According to the Gold Standards Framework prognostic indicator guidance the single most important predictive factor in cancer is performance status and functional ability. If a patient is spending more than 50% of their time in bed/ lying down, prognosis is estimated to be about

- A) 1 week or less
- B) 1 month or less
- C) 3 months or less
- D) 6 months or less
- E) 9 months or less

6. An 85 year old man with metastatic prostate cancer and CKD is admitted due to poor oral intake, decline in mobility and abdominal pain. His usual medication is MST 20mg BD and his creatinine is 200. Despite active treatment he becomes increasingly drowsy and unable to manage oral intake. In the last 24 hours he has had four doses of oramorph 5mg. The most appropriate analgesia at this stage would be:

- A) Buprenorphine topical patch 10 micrograms/hr
- B) Diamorphine 20mg in 24 hrs via syringe driver
- C) Fentanyl topical patch 25micrograms/hr
- D) Oxycodone prolonged release tablets orally 15mg twice daily
- E) Oxycodone 60mg in 24 hrs subcutaneously via syringe driver

7. An 89 year old woman with vascular dementia is admitted with facial bruising and suspected head injury following a fall at home. She lived with her husband and daughter (a retired social worker with lasting power of attorney for her parents) and is dependent for all activities of daily living. Her devoted husband came in every day to help feed her. However the ward sister observed the patient's husband slap her on the face when she refused to eat the hospital food he offered.

The next most appropriate step should be:

- A) An Independent Mental Capacity Advocate should be consulted.
- B) A Protection of Older Vulnerable Adult investigation should be instigated.
- C) The husband's behavior should be immediately challenged by the ward doctor.
- D) The patient's daughter should be called and advised of what occurred.
- E) The police should be called to investigate an alleged witnessed assault.

8. An 86 year old woman was found on the bathroom floor by one of her carers. An ambulance was called and she was sent to the local hospital Emergency Department (ED) for an assessment. Her past medical history included hypertension, recurrent falls and "memory problems". A comprehensive history and physical examination demonstrated no acute organic illness or injury. The patient was independently mobile with her zimmer frame in ED which her daughter confirmed was her usual level of mobility. The patient had decided that she wanted to go home but the nurse in charge of ED had concerns about her safety on returning home, particularly in light of her memory problems and falls. The patient was becoming more agitated at not being allowed to go home. The next most appropriate step in her management should be:

- A) CT brain scan
- B) Daughter's views ascertained
- C) Formal Cognitive Assessment
- D) Physiotherapy assessment
- E) Urgent Deprivation of Liberty Safeguarding (DOLS) application

9. When defining frailty using the Fried model the following criteria should be considered:

- A) Polypharmacy
- B) Sensory impairment (sight or hearing)
- C) Timed get up and go test
- D) Two or more falls within the last year
- E) Unintentional weight loss

10. 69 year old male with type 2 diabetes and high BMI. Presents with 24 hour history of persistent numbness affecting his right side of the body including face. He is now complaining of pain affecting his right arm. On examination he has no focal motor weakness.

What is the most likely location of pathology?

- A) Brain stem
- B) Left frontal lobe
- C) Left thalamus
- D) Peripheral neuropathy
- E) Spinal cord

11. An 80 year old woman was admitted to hospital with breathlessness. Past medical history of hypertension, COPD and myocardial infarction. Inpatient echocardiography showed left ventricular systolic dysfunction with ejection fraction (EF) of 36% with no significant valvular lesions. The patient responded well to acute heart failure treatment. On discharge which treatment strategy is most relevant in this case?

- A) Beta blocker, ACE inhibitor and Mineralocorticoid Receptor Agent (MRA)
- B) Beta blocker, an Angiotensin receptor blocker/Nepriylsin inhibitor and MRA
- C) Beta-blocker should be avoided because of her COPD.
- D) MRA should be avoided as EF is more than 35%
- E) Referral to Cardiologist for device therapy
- F) 12. An 89 year old woman suffers fracture of left distal radius and right neck of femur. The radial fracture was treated with closed reduction and cast application and she underwent a right Dynamic Hip Screw insertion.

12. When assessed in the community hospital, she was noted to have rheumatoid arthritis deformities involving her hands. She was able to stand and transfer with the help of 1 person but was unsteady on her feet. She was very keen to return home as soon as feasible.

Which walking aid is most likely to be of benefit at this stage?

- A) Gutter frame
- B) Rollator frame
- C) Tripod walking stick
- D) Walking crutches
- E) Zimmer frame

13. A 75-year-old man developed severe spasticity involving his right wrist following a lacunar stroke causing significant disability.

Which neurotransmitter is the target of the agent commonly injected in these cases?

- A) Acetylcholine
- B) Adenosine
- C) Dopamine
- D) γ - amino butyric acid
- E) Glutamate

14. A previously fit 86 year old lady presents with 6 week history of bloody diarrhoea, abdominal discomfort and mouth ulcerations.

Which of the following is the most appropriate non invasive test?

- A) Anti TtG
- B) Faecal calprotectin
- C) Faecal elastase
- D) Stool examination for H pylori antigen
- E) Stool test for C diff

15. A 78 year old woman with Parkinson's disease is admitted with increasing disorientation and a pyrexia. She is known to have mild cognitive impairment. She has a positive urine dipstick and is commenced on oral Trimethoprim for a presumed urinary tract infection. That evening she becomes increasingly agitated and is trying to climb out of bed. Ward staff are having difficulty keeping her safe with one-to-one 'specialing'.

The most appropriate drug management would be:

- A) Aricept
- B) Galantamine
- C) Haloperidol
- D) Lorazepam
- E) Zopiclone

16. An 80 year old woman is admitted with a pontine infarct, resulting in severe dysarthria and dysphagia. She has capacity regarding feeding decisions, consents to a nasogastric (NG) feeding tube, and is awaiting review for a PEG feeding tube. She develops a urinary tract infection, and delirium. There are no neurological signs to suggest a further stroke. She pulls out the NG tube, and refuses to have it replaced. She is now deemed to lack capacity regarding feeding decisions. She has no family, and an IMCA is appointed.

The following would probably be the best line of management:

- A) expedite placement of the PEG feeding tube
- B) keep nil by mouth until delirium resolved and reassess capacity to refuse NG tube
- C) resite NG tube and use mittens as restraint
- D) resite NG tube with a bridle
- E) respect her wish not to be fed, and allow 'feeding at risk'

17. A 75-year-old man with memory problems scores 22/30 on MoCA. He is functioning well and you diagnose mild cognitive impairment. You explain that this means that he has an increased risk of developing dementia. He asks if it is safe for him to continue to drive his car. What do you tell him?

- A) He can continue to drive if there are no concerns that he may be unsafe
- B) He needs to contact the DVLA who will then decide
- C) He should have a test at a Driving Assessment Centre
- D) He will need to have more detailed cognitive testing
- E) He would be wise to consider stopping driving

18. An 80 year old man has been taking donepezil 10mg each morning since he was diagnosed with Alzheimer's disease about 3 years ago. At annual review, his dementia is now moderately severe and his wife says that he is now more agitated and restless, especially at night. What would be the most appropriate pharmacological management?

- A) Reduce dose of donepezil to 5mg
- B) Start low dose of risperidone
- C) Start memantine
- D) Stop donepezil and start rivastigmine
- E) Take donepezil in evening, rather than in morning

19. An 87 year old man is admitted with lethargy. He has a background history of prostate carcinoma, chronic kidney disease, chronic constipation and hypertension. Current medications are: LHRH analogue monthly subcut injection, macrogol sachets PRN and amlodipine 5mg OD
Bloods results are as follows:

Hb 85 g/L (130-180)
Platelets $220 \times 10^9/L$ (140-400)
WCC $7.0 \times 10^9/L$ (3.6-11.0)
MCV 87 fL (80-100)

Ferritin 16 ng/mL (25-350)
B12 300 pg/mL (80-1000)
Folate 6 ng/mL (>4.0)
Erythropoietin 2.5 IU/L (4.3-29.0)
Creatinine 280 $\mu\text{mol/L}$ (59-104)
Urea 15 mmol/L (2.5-7.8)
Potassium 4.0 mmol/L (3.5-5.3)
Sodium 140 mmol/L (133-146)

What is the most appropriate treatment?

- A) Erythropoietin
- B) Intravenous iron
- C) Intravenous iron followed by erythropoietin
- D) Oral iron
- E) Oral Iron followed by erythropoietin

20. The Waterlow Score is a commonly used tool to estimate the risk of an adult developing pressure areas.

Which of the following areas is not a part of this tool?

- A) Continence
- B) Mobility
- C) Nutrition
- D) Steroid useage
- E) Smoking status

21. The Waterlow Score is a commonly used tool to estimate the risk of an adult developing pressure areas.

Which of the following factors would give the highest points value?

- A) Below average BMI
- B) Double incontinence
- C) Peripheral vascular disease
- D) Presence of an established ulcer
- E) Restricted mobility

22. NICE guidelines suggest adults identified to be "at risk" of developing a pressure ulcer should be encouraged to reposition themselves a maximum of every:

- A) 2 hours
- B) 3 hours
- C) 4 hours
- D) 5 hours
- E) 6 hours

23. An 86 year old woman is inpatient stroke rehabilitation. She has a urinary catheter in situ. Staff notice her urine is cloudy and send a sample for urine culture. The patient is clinically well and apyrexial fevers.

Urine culture: significant growth of E. coli

Which action is most appropriate?

- A) Commence course of trimethoprim
- B) Observe
- C) Remove urinary catheter
- D) Repeat the urine culture
- E) Replace urinary catheter

24. A 78 year old man is admitted to hospital after being found on his bedroom floor. He has a background of Alzheimer's disease and cannot recall the events. He has presented to hospital 4 times in the last year due to falls. On examination, there is minor bruising to both knees. His current medications include alendronate 70mg weekly and diazepam 2mg TDS.

Which of the following assessments is NOT recommended?

- A) Assessment of cognitive impairment
- B) Assessment of continence
- C) Detailed falls history
- D) Inpatient falls risk prediction tool
- E) Medication review

25. A 91 year old woman is referred to the Geriatrics Outpatient Clinic by her GP who is concerned of that her functional level is declining. Over the last year she has become unable to manage her housework and carers now assist her with washing and dressing. She has a past medical history of biventricular cardiac failure and urinary incontinence.

You decided to apply a screening tool to identify frailty. Which of the following is assessed in the PRISMA-7 questionnaire?

- A) Age
- B) Gait speed
- C) Grip strength
- D) Mood
- E) Sleep

26. Mrs Jones is an 87 year old lady who presented to the Emergency Department (ED) after injuring her wrist. She was walking her dog when she tripped over the dog's lead. A fracture of the wrist was excluded. The ED doctor assessing her calls you for advice regarding minimising her future risk of fracture. Which of the following should you advise?

- A) No further action required
- B) Prescription of alendronate
- C) Prescription of calcium supplements
- D) Use of FRAX tool to assess future fracture risk
- E) Use of QFracture tool to assess future fracture risk

27. An 80 year old man reports deteriorating mobility over the last 6 months. Both knees are painful when he walks and that this limits his mobility. Physical examination reveals Heberden's nodes and there is significant crepitus present at both knee joints. His BMI is calculated as 42 kg/m².

Which of the following measures would be most appropriate?

- A) Acupuncture
- B) Chondroitin supplements
- C) Glucosamine supplements
- D) Regular oral ibuprofen
- E) Regular oral paracetamol

28. A 72 year old woman with Alzheimer's dementia is admitted to hospital with increasing confusion. Her daughter informs you that her mother has been seeing animals in her house over the last 24 hours.

Which of the following features would most make you suspect delirium?

- A) Carphologia
- B) Reduced appetite
- C) Verbal aggression
- D) Visual hallucinations
- E) Wandering

29. A 66 year old man has experienced several falls over the last 2 months. Physical examination reveals a lack of spontaneous movement and a rigidity of both upper limbs.

Which of the following is not supportive of a diagnosis of idiopathic Parkinson's disease?

- A) Early severe autonomic involvement
- B) Excellent response to levodopa
- C) Postural instability not caused by primary visual, vestibular, cerebellar, or proprioceptive dysfunction
- D) Rest tremor present
- E) Unilateral involvement

30. A 65 year old woman presents with a 2-month history of tremor. The tremor is present in both upper limbs at rest, does not disappear on intention nor improve with alcohol consumption and there is no family history of tremor. She is not taking any regular medications. There is no clinical evidence of bradykinesia, she has hyper-reflexia and gait is normal. She appears very anxious and hasn't been sleeping well. She is concerned that a friend with a tremor has Parkinson's disease.

What is the next step?

- A) Acute levodopa and apomorphine challenge tests
- B) Diagnose benign familial tremor and reassure
- C) Positron emission tomography
- D) Thyroid function tests
- E) ^{123}I -FP-CIT-SPECT

31. Which of the following neuroprotective measures is recommended in idiopathic Parkinson's disease?

- A) Co-enzyme Q₁₀
- B) Dopamine agonist
- C) Monoamine oxidase B (MAO-B) inhibitors
- D) Vitamin E
- E) None of the above

32. Which of the following scales is not used to support clinical judgement when assessing a patient's risk of developing pressure ulcers?

- A) Anderson
- B) Braden
- C) Norton
- D) PUSH
- E) Waterlow

33. A 78 year old woman attends the Emergency Department with a resolving TIA as is found to be in atrial fibrillation. She has type 2 diabetes, previous femoral artery angioplasty and hypertension. What is the best approximation of her annual stroke risk?

- A) 3%
- B) 5%
- C) 7%
- D) 10%
- E) 18%

34. An 84 year old woman (a retired latin teacher) with no family lives alone in a two storey house which she rarely leaves. Her GP calls and finds the house very untidy with large piles of magazines, tights and orange juice cartons. She is independently mobile and states she manages to look after herself with no problem. Her examination is unremarkable. MOCA 28/30, GDS 3, TUG 10 secs.

What is the most likely diagnosis?

- A) Atypical depression
- B) Diogenes syndrome
- C) Obsessive compulsive disorder
- D) Patient choice not in-keeping with social norms
- E) Vitamin D deficiency

35. A 72 year old man has weakness in his left upper limb with a wrist drop but is still able to extend his elbow. He is able to give a clear history in keeping with nerve compression. Where is the site of compression?

- A) Axilla
- B) Cervical spine
- C) Forearm
- D) Upper arm
- E) Wrist

36. A 73 year old man with mild dementia is admitted with a fall and a lower respiratory tract infection. There is initial delirium which improves and discharge plans are commenced. The Occupational Therapist reports a Barthel index of 60/100.

Which of the following is not included in that index?

- A) Bathing
- B) Cognition
- C) Continence
- D) Dressing
- E) Toileting

37. An 88 year old woman who lives alone is taken to her GP because her daughter is concerned she has been deteriorating over the last few weeks. Her clinical condition had improved slightly over Christmas while staying with family but since return home has become increasingly muddled and complaining of nausea, malaise and headache.

What is the most likely diagnosis?

- A) Anxiety and Depression
- B) Carbon monoxide Poisoning
- C) Hypothyroidism
- D) Influenza
- E) Medication overuse

38. An 80 year old woman is seen in falls clinic. She has fasciculations, muscle wasting and fatigability.

What is the least likely differential diagnosis?

- A) Cervical spondylosis
- B) Chronic Inflammatory Demyelinating Polyneuropathy
- C) Kennedy's Disease
- D) Motor Neurone Disease
- E) Myasthenia Gravis

39. An 87 year old man has a 6 month history of progressive decline. He is reviewed by a neurologist who notes myoclonus, reduced speech and movement with hyperreflexia. An EEG is organised – what is the likely result?

- A) Background slowing and characteristic periodic sharp wave complexes
- B) Generalised 3/sec spike and wave
- C) Long repetitive complexes
- D) Loss of alpha activity
- E) Myoclonus correlated cortical spikes

40. An 78 year old man is admitted with left sided weakness and visual disturbance. He has a background of hypertension and diabetes. On examination there is a left hemiparesis and a right sided complete ptosis.

What is the diagnosis?

- A) Brainstem stroke
- B) Foville's Syndrome
- C) Lateral medullary syndrome
- D) Right hemisphere stroke
- E) Weber's syndrome

41. An 82 year old gentleman presents with troublesome urinary urgency, frequency and nocturia. Post void residual volume is 60mls. He is commenced on an antimuscarinic drug and day-time symptoms significantly improve. However, he continues to be troubled by nocturia.

What is the most likely cause of the night-time symptoms?

- A) Age-associated nocturnal polyuria
- B) Benign Prostatic Hypertrophy
- C) High residual bladder volume
- D) Overactive bladder
- E) Pelvic floor weakness

42. A 79 year old woman presents to her GP with insomnia and falls at night. She gives a history of nightly tingling in her legs and a persistent desire to move her legs, eased by getting up. The GP orders the following investigations:

Hb 88 g/dL (130-180)
WCC $5.2 \times 10^9/L$ (3.6-11.0)
Platelet count $280 \times 10^9/L$ (150-400)
MCV 73 fL (80-100)
TSAT 14% (20-50)

U+E, LFT, random glucose and TFTs all normal

What is the best treatment for this patient?

- A) Gabapentin
- B) Iron supplements
- C) IVIg
- D) Levodopa
- E) Quinine sulphate

43. A 69 year old woman is seen in outpatient clinic with a history of hypothyroidism, Vitamin D deficiency, hypertension, atrial fibrillation (on warfarin) and recurrent UTIs. She seeks advice on appropriate drinks to take her tablets, as she dislikes water. Which would you recommend?

- A) Apple Juice
- B) Banana Smoothie
- C) Cranberry Juice
- D) Grapefruit Juice
- E) Green Tea

44. 82 year old woman is referred with recurrent falls, deteriorating balance and increasing forgetfulness. She has been very upset recently as she has been seeing small children in the house. Examination showed MOCA 20/30, reduced facial expression and blinking frequency, increased tone in all 4 limbs with hyper-reflexia but no tremor or cog-wheeling. She walked with short steps and struggled to turn and almost fell.

If the visual hallucinations become distressing what is the best management option?

- A) Cataract operation
- B) Diazepam
- C) Haloperidol
- D) L-dopa
- E) Quetiapine

45. 75 year old woman with Alzheimer's dementia (MOCA 18/30) was found by her neighbours, locked out of her house. She has a carer every morning, is not prone to wandering and usually doesn't leave the house without family. She also suffers from temporal arteritis and is on donepezil, prednisolone, adcal d3 and alendronic acid.

What assistive technology is she likely to benefit most from?

- A) Keysafe
- B) Notices reminding her to take her door key
- C) Pill box with alarm function
- D) SMS medication reminders
- E) Wandering monitor linked to her mobile phone

46. An 83 year old woman with vascular cognitive impairment trips over a slipper in her residential home and suffers a fracture of her left neck of femur. Three weeks after her surgery she has progressed well and is mobilising independently with a zimmer frame. She occasionally refuses care and throws her pills at nursing staff. Her weight and renal function are normal.

Which of the following is the most appropriate bone protection strategy?

- A) DEXA scan and follow up in clinic
- B) Daily calcium/vitamin D and weekly Alendronic acid.
- C) Initial Oral Vitamin D loading followed by Zolendronic acid infusion
- D) Nothing as she is intermittently compliant
- E) Subcutaneous denosumab

47. An 81 year old woman attends falls clinic. She gives a history suggestive of urge incontinence and has a normal post voiding bladder scan. Her daughter states that whenever she gets one of "her UTIs" she is confused and sleepy. Concerned by her potential for delirium you are cautious regarding her medication.

Which of the following carries the lowest anticholinergic burden?

- A) Mirabegron
- B) Oxybutynin
- C) Solifenacin
- D) Tolterodine
- E) Trospium

48. An 83 year old woman is referred to outpatient clinic, she shows you a 10cm diameter ulcer on the gaiter area of her left leg, you note venous flare and an offensive smell. She tells you the ulcer hasn't been healing and is more painful. Her ankle brachial pressure index is 0.68.

Which of the following is the least appropriate treatment?

- A) IV tazocin
- B) Level one compression stockings
- C) Oral ciprofloxacin
- D) Topical potassium permanganate
- E) Topical Vinegar

49. A 74 year old lady presents with an 18 month history of forgetfulness and recently became lost on returning home. There is a longstanding history of hypertension treated with atenolol. She appears euthymic and scores 67/100 on an Addenbrookes cognitive examination with deficits in multiple domains. Normal examination except a pulse rate of 50 and ankle oedema.

What is the most appropriate next step?

- A) Reduce and stop atenolol
- B) Start donepezil 5 mg OD
- C) Start donepezil 10 mg OD
- D) Start galantamine 4 mg BD
- E) Start memantine 5mg OD

50. A 72 year old woman reports increasing difficulties with activities of daily living, especially dressing. She feels she's been slowing down for approximately one year and noticed right hand difficulties on playing the piano. She has a hypomimic face, slow finger tapping right more than left and is unsteady. She is a smoker and has been diabetic for 20 years.

Which of the following is the most appropriate treatment?

- A) Amantadine
- B) Entacapone
- C) Levodopa
- D) Rotigotine
- E) Selegiline