

Mock SCE 2020 – Answers

1. Correct answer = C

This would be a stage III ulcer as there is full thickness tissue loss but bone/ tendon is not exposed.

NICE recommend the International NPUAP-EPUAP Pressure Ulcer Classification System to categorise pressure ulcers. (<https://www.nice.org.uk/guidance/cg179>). Information on the International NPUAP-EPUAP Pressure Ulcer Classification System can be found at <https://www.epuap.org/wp-content/uploads/2016/10/quick-reference-guide-digital-npuap-epuap-pppia-jan2016.pdf>

2. Correct answer = D

New NICE guidelines suggest GP refers patients for urgent assessment if there is retinal haemorrhage or papilloedema on fundoscopy, or if there are potentially life threatening symptoms (confusion, chest pain, acute heart failure or acute kidney injury).

In this case headache alone is likely just to be symptomatic hypertension and delirium (characterised by a 4AT score of 7) is more suggestive of an intracranial haemorrhage which would require urgent admission. A creatinine of 120 in this cases is a stage one AKI which doesn't require inpatient management. LVH on ECG may suggest end organ damage from uncontrolled hypertension, but while this suggests the need to urgently control blood pressure as an outpatient, it is not a hypertensive emergency.

3. Correct answer = B.

The MUST requires three steps to categorise a person into low, medium or high risk of malnutrition. Stage 1 is to calculate BMI using height and weight or proxy measures ulnar length for height or mid upper arm circumference. Stage 2 is to determine unplanned weight loss in the last 3-6 months. Stage 3 to assess if the person is acutely ill and there has been or is likely to be no nutritional intake for over 5 days.

NICE recommends the use of a screening tool such as MUST (<https://www.nice.org.uk/guidance/cg32/chapter/1-Guidance#screening-for-malnutrition-and-the-risk-of-malnutrition-in-hospital-and-the-community>)

4. a.

These answers have all been taken from the January 2019 Cochrane review on exercise for preventing falls in older people living in the community. Exercise reduces the number of falls over time by around one-quarter (23% reduction). By way of an example, these data indicate that if there were 850 falls in 1000 people followed over one year, exercise would result in 195 fewer falls. Exercise also reduces the number of people experiencing one or more falls (number of fallers) by around one-sixth (15%) compared with control. There is insufficient or no evidence for the other answers.

https://www.cochrane.org/CD012424/MUSKINJ_exercise-preventing-falls-older-people-living-community

5. Correct answer = B

This gentleman has scurvy, which is causing his main complaint of swollen itchy gums. This is due to poor diet and can also be exacerbated by smoking which reduces absorption of vitamin C. Cutaneous findings associated with hair follicles are commonest, with per-follicular haemorrhage and the presence of 'corkscrew' hairs. Gum abnormalities are only present in people with teeth. (<https://www.sciencedirect.com/science/article/pii/S0190962299702446#aep-figure-id14>)

Treatment is with ascorbic acid 250mg in divided doses (BNF)

6. Correct answer = C

NICE guidelines for the management of hip fracture suggest the following:

- Displaced intracapsular fractures should be treated with total hip replacement in patients who were previously independently mobile, are not cognitively impaired and are medically fit for the procedure. Otherwise non-displaced intracapsular fractures should be treated with hemiarthroplasty.
- Intertrochanteric fractures should be treated with extramedullary implants such as a dynamic hip screw
- Subtrochanteric fractures should be treated with intra-medullary nail

7. Correct answer = A

Answer: This is Weber's syndrome – an infarct in the midbrain presenting with ipsilateral third nerve palsy and contralateral hemiparesis

8. Correct answer =B

NICE guidelines Parkinson's Disease in Adults, 2017. Single photon emission computed tomography. 1.2.6 Consider 123I-FP-CIT single photon emission computed tomography (SPECT) for people with tremor if essential tremor cannot be clinically differentiated from parkinsonism.

9. Correct answer = A

Nice recommend: 25–35 kcal/kg/day total energy (including that derived from protein), 0.8–1.5 g protein (0.13–0.24 g nitrogen)/kg/day, 30–35 ml fluid/kg, adequate electrolytes, minerals, micronutrients (allowing for any pre-existing deficits, excessive losses or increased demands) and fibre if appropriate. Different reference ranges apply for those at risk of refeeding syndrome.

(<https://www.nice.org.uk/guidance/cg32/chapter/1-Guidance#enteral-tube-feeding-in-hospital-and-the-community>)

10. Correct answer = B, the hypogastric nerve, sympathetic branch

11. Correct answer = C. 1 million people will have dementia by 2025, not 2050. All others are correct. <https://www.alzheimersresearchuk/>

12. Correct answer = E, all other answers are a direct result of deconditioning.

13. Correct answer = D

The National Osteoporosis Guideline Group 2017: Clinical Guideline for the Prevention and Treatment of Osteoporosis reports that women with a history of fragility fracture may be considered for treatment without further assessment (ie DXA). Oral bisphosphonate is usually first line treatment in absence of contraindications. There is nothing to suggest a pathological fracture requiring a bone scan.

14. Correct answer = A

NICE guidelines suggest the addition of a dual therapy with LAMA/LABA if symptoms are inadequately controlled on monotherapy. A LABA/steroid combination may be appropriate if there are features suggestive of asthma or steroid responsiveness. Long term oxygen is contra-indicated as the patient still smokes.

15. Correct answer = A

The correct answer is positive risk taking. This is outlined in the NICE guidance 'Intermediate care including reablement' and is defined as 'balancing the positive benefits gained from taking risks against the negative effects of attempting to avoid risk altogether'. It is encouraged throughout the guidance as a principle to be followed when delivering intermediate care.

16. Correct answer = B

This is as case of making sure you read the question carefully. It is not asking for general indications for cardiac pacing, but specifically, what indication NICE lists for cardiac pacing for *unexplained* falls. Cardioinhibitory carotid sinus hypersensitivity is the only indication listed for cardiac pacing in NICE guidelines for falls in older people: assessing risk and prevention.

<https://www.nice.org.uk/guidance/cg161/chapter/1-Recommendations>

17. Correct answer = C

NICE guidelines Parkinson's Disease in Adults, 2017. Review of diagnosis. 1.2.5 Review the diagnosis of Parkinson's disease regularly, and reconsider it if atypical clinical features develop.

Second consensus statement on the diagnosis of multiple system atrophy, Neurology (2008). American Academy of Neurology:

Criteria for the diagnosis of **probable MSA**

A sporadic, progressive, adult (>30 y)-onset disease characterized by

- Autonomic failure involving urinary incontinence (inability to control the release of urine from the bladder, with erectile dysfunction in males) or an orthostatic decrease of blood pressure within 3 min of standing by at least 30 mm Hg systolic or 15 mm Hg diastolic and
- Poorly levodopa-responsive parkinsonism (bradykinesia with rigidity, tremor, or postural instability) or
- A cerebellar syndrome (gait ataxia with cerebellar dysarthria, limb ataxia, or cerebellar oculomotor dysfunction)

Criteria for **possible MSA**

A sporadic, progressive, adult (>30 y)-onset disease characterized by

- Parkinsonism (bradykinesia with rigidity, tremor, or postural instability) or
- A cerebellar syndrome (gait ataxia with cerebellar dysarthria, limb ataxia, or cerebellar oculomotor dysfunction) and
- At least one feature suggesting autonomic dysfunction (otherwise unexplained urinary urgency, frequency or incomplete bladder emptying, erectile dysfunction in males, or significant orthostatic blood pressure decline that does not meet the level required in probable MSA) and

18. Correct answer = D

Emphasis on history taking of management to date first before interventions/new treatments. Use of pharmacological therapies are likely to do more harm than good. Calling the daughter who is apparently driving in is unlikely to be correct.

19. Correct answer = D

According to NICE guidelines for diagnosis and management of COPD, indication for LTOT are:

- P02 of <7.2 when stable
- P02 between 7.3 and 8 with – secondary polycythaemia, peripheral oedema, pulmonary hypertension

20. Correct answer = A

150 minutes of moderate intensity aerobic activity weekly

21. Correct answer = A

Prednisolone. This is a Bells palsy – involvement of the muscles of the forehead is characteristic of a lower motor neurone lesion.

22. Correct answer = A

NICE guidelines on management of incontinence state that when starting medication for overactive bladder you should consider any contra-indications to anti-cholinergics and the overall anti-cholinergic burden from the patients other drugs. In this case closed angle glaucoma and cognitive impairment both suggest anti-cholinergics are contraindicated so mirabegron would be more suitable.

23. Correct answer = A

The correct answer is both own and care home. This is discussed in the NICE guidance 'Intermediate care including reablement'. Reablement is defined as assessment and interventions provided to people in their home (or care home) aiming to help them recover skills and confidence

and maximise their independence. For most people interventions last up to 6 weeks. Reablement is delivered by a multidisciplinary team but most commonly by social care practitioners.

24. Correct answer = A, hypoadrenalism

25. Correct answer = E

This is an application and interpretation question rather than simple recall. The key to the diagnosis is that there is a clear prodrome, precipitant (warm environment), and postural provocation (prolonged standing). Although there is a small drop in blood pressure within 1 minute of standing (there is a diastolic drop of 10mmHg), the key is that this drop is not concordant with her symptoms and is unlikely to be the cause here. Note that brief seizure activity can occur during uncomplicated faints and is not necessarily diagnostic of epilepsy. NICE guidelines recommend to diagnosed vasovagal syncope when the three Ps are present.

<https://www.nice.org.uk/guidance/cg109/chapter/1-Guidance>

26. Correct answer = A

The patient has developed an impulse control disorder secondary to dopamine agonist use (ropinirole, pramipexole etc). NICE guidelines Parkinson's Disease in Adults, 2017. Managing dopaminergic therapy in people who have developed an impulse control Disorder. 1.4.8 When managing impulse control disorders, modify dopaminergic therapy by first gradually reducing any dopamine agonist. Monitor whether the impulse control disorder improves and whether the person has any symptoms of dopamine agonist withdrawal.

27. Correct answer = D

The question refers to capacity and the role of a lasting power of attorney for health/welfare which could be the husband, daughter or an appointed attorney.

28. Correct answer = C, lower body musculature

29. Correct answer = C

This is lateral medullary syndrome, characterised by dysarthria, dysphasia, dizziness and ataxia.

Characteristic examination findings include and ipsilateral horners syndrome, cerebellar signs and facial loss of pain and temperature sensation as well as contralateral hemi-sensory loss (also due to pain and temperature sensation, due to involvement of the spinothalamic tracts).

30. Correct answer = D

Parental History of Hip Fracture. The other independent clinical risk factors are high alcohol intake and history of rheumatoid. Age and T Score are clinical measures in the decision tool but not "independent clinical risk factors". Thyroid disease and malabsorption syndromes are not included.

31. Correct answer = A

This question is asking what recommendations are made by NICE; these may differ from local guidelines and/or practice. NICE actually makes very clear recommendations on ambulatory ECG monitoring for transient loss of consciousness:

“For people with a suspected cardiac arrhythmic cause of syncope, offer an ambulatory ECG and do not offer a tilt test as a first-line investigation. The type of ambulatory ECG offered should be chosen on the basis of the person’s history (and, in particular, frequency) of TLoC. For people who have:

- TLoC at least several times a week, offer Holter monitoring (up to 48 hours if necessary). If no further TLoC occurs during the monitoring period, offer an external event recorder that provides continuous recording with the facility for the patient to indicate when a symptomatic event has occurred.
- TLoC every 1–2 weeks, offer an external event recorder. If the person experiences further TLoC outside the period of external event recording, offer an implantable event recorder.
- TLoC infrequently (less than once every 2 weeks), offer an implantable event recorder. A Holter monitor should not usually be offered unless there is evidence of a conduction abnormality on the 12-lead ECG.”

<https://www.nice.org.uk/guidance/cg109/chapter/1-Guidance>

32. Correct answer = E

This clinical history of consistent with benign paroxysmal positional vertigo. This is diagnosed using the hallpike manoeuvre and treated using an epleys. There is no suggestion this is an acute stroke (which would be treated with aspirin) and no evidence of orthostatic hypotension.

33. Correct answer = E

All options are “do nots” on the NICE guideline. <https://www.nice.org.uk/guidance/ng97/>

34. Correct answer = B, 0.8 metre per second

35. Correct answer = D, thrombectomy alone

This answer is based on the NICE guidance for thrombectomy. The patient woke up with her symptoms and was last seen well over six hours ago. This is outwith the window for thrombolysis (4 hours). Thrombectomy is an option for people who have imaging confirming occlusion in the proximal circulation. Thrombectomy should be given with thrombolysis if this criteria is met and they present within six hours of symptom onset. Thrombectomy alone should be offered in those who present within 6 and 24 hours, including wake up strokes.

36. Correct answer = D

This is based on the NICE guidance for management of incontinence

37. Correct answer = A

NICE guidelines for hip fracture recommend MRI of the hip to look for occult fracture not visible on x-ray. CT can be used if MRI not accessible within 24 hours.

38. Correct answer = D

The correct answer is lower dependency scores. Several studies have investigated variables which are associated with mortality in nursing home residents. Increased age, severe dementia, lower BMI and high dependency scores have been associated with increased risk of death. There is a degree of ambiguity over psychosis and gender with different studies demonstrating different results.

Hjaltadóttir, I., Hallberg, I.R., Ekwall, A.K. *et al.* Predicting mortality of residents at admission to nursing home: A longitudinal cohort study. *BMC Health Serv Res* **11**, 86 (2011) doi:10.1186/1472-6963-11-86

Vossius C, Selbæk G, Šaltytė Benth J, Bergh S. Mortality in nursing home residents: A longitudinal study over three years. *Plos one*. 2018 ;13(9):e0203480. DOI: 10.1371/journal.pone.0203480. 77

39. Correct answer = D

The European Consensus definition on sarcopenia is that it is a muscle failure defined by the presence of low muscle strength and low muscle quality or quantity. It is considered to be severe when it is associated with low physical performance.

<https://academic.oup.com/ageing/article/48/1/16/5126243>

40. Correct answer = A

>£2.3 billion. All others are correct. <https://www.nice.org.uk/guidance/CG161/chapter/introduction>

41. Correct answer = D

The correct answer is D. The decision has to be made individually for each medication. Every time a new medication is prescribed there should be a new best interests meeting.

<https://www.cqc.org.uk/guidance-providers/adult-social-care/administering-medicines-covertly>

42. Correct answer = C

This lady has an impairment in balance due to previous stroke and mild unilateral weakness. Walking sticks are effective in preventing falls. She is still active with fair walking speed so is likely to be more impaired and slowed down by using a frame.

43. Correct answer = C

His NIHSS Score is 10. He gets 4 points for having no movement in his left arm, four points for no movement in his left leg, and 2 for his severe neglect.

44. Correct answer = A, calcium channel blockers

45. Correct answer = A

The Bathel Index is a measure of performance in Activities of Daily Living (ADLs) and can be used to measure improvement in those undergoing rehabilitation. The NIHSS score measures impairment caused by stroke. The APACHE (acute physiological assessment and chronic health evaluation) is generally used to assess severity of disease in ICU. American Society of Anaesthesiology (ASA) grade is used to assess fitness prior to an operation. The Rockwood Clinical Frailty Score assesses frailty but is of less use in measuring the outcome of rehabilitation.

46. Correct answer = E

See: Stott DJ et Quinn TJ. Principles of Rehabilitation in Older People. *Medicine* 2013;41(1);1-4. There is good evidence for multidisciplinary Comprehensive Geriatric Assessment and rehabilitation in older people, including in the community. Those with cognitive impairment may still benefit and should not be excluded solely on this basis.

47. Correct answer = D

Source: National Office of Statistics: Living Longer: is 70 the new age 65?

48. Correct answer = C

She is haemodynamically stable so does not require immediate DC cardioversion. It is likely her AF has been present for >72hrs so attempting cardioversion with amiodarone or flecainide holds a risk of embolic stroke. Rate control would be first line in this case and B-blockers are recommended 1st line if no contraindications. See resuscitation council guideline for arrhythmias.

49. Correct answer = A

Source: National Office of Statistics.

50. Correct answer = B

New iron deficiency anaemia in a male or post menopausal female is suspicious of GI blood loss. A ferritin would confirm iron deficiency. He has a raised urea in keeping with upper GI loss and this would be first line investigation in absence of symptoms suggesting another source.