**MCQs**
**Stroke**

Question 1

A 65-year-old right handed woman developed a sudden inability to speak properly while she was talking to her neighbour. Her husband brought her to hospital immediately and described the problem as if she were talking "double Dutch". Her past medical history comprised hypertension and osteoarthritis. She was taking bendroflumethiazide 2.5mg od and prn codeine.

On examination, there was obvious word-finding difficulties and problems correctly naming objects. Understanding appeared to be intact. Her blood pressure was 190/100 mmHg. There was no other abnormality on examination.

What is the next best step in management?

A Amlodipine 5mg orally
B Ateplase 0.9 mg/kg intravenously
C Aspirin 300mg orally
D Clopidogrel 300mg orally
E Tenecteplase 50mg intravenously

(Remember in the exam the "correct" answer is the NICE guideline answer, followed by specialist society guidelines, followed by consensus).

Question 2

A 65-year-old right handed woman developed a sudden inability to speak properly while she was talking to her neighbour. Her husband brought her to hospital immediately and described the problem as if she were talking "double Dutch". Her past medical history comprised hypertension and osteoarthritis. She was taking bendroflumethiazide 2.5mg od and prn codeine.

Urgent imaging confirmed an infarct in the left MCA territory and she was admitted to the Acute Stroke Unit. She had a normal 12-lead ECG, and her glucose, CRP and cholesterol results were normal. Bilateral carotid Doppler studies revealed a 70%+ stenosis on the right side, with 30% stenosis on the left.

What is the next best step in management?

A Ambulatory 24 hour ECG to look for paroxysmal atrial fibrillation
B Clopidogrel 75 mg orally
C Echocardiogram
D Medical management of vascular risk factors
E Referral for urgent carotid endarterectomy

Question 3

A 75-year-old man noticed left sided numbness and weakness on waking up that morning, which was still present at the time of assessment in the Emergency Department. He had been given 300mg aspirin orally by paramedics. His past medical history comprised paroxysmal AF which had been DC cardioverted. He was not taking any regular medication. He was a right handed driver with no other past medical history.

On examination, he had objective reduced power on the left side of his body (4/5) but no other abnormality. He was alert and orientated. His NIH Stroke Score was calculated to be 3. An urgent CT scan of the head was normal.

What is the next best step in management?

A Ateplase 0.9 mg/kg intravenously
B Aspirin 300mg orally
C Clexane 1.5mg/kg subcutaneously
D Clopidogrel 300mg orally
E Tenecteplase 50mg intravenously

Question 4

A 75-year-old man developed sudden left sided numbness and weakness which was still present at the time of assessment in the Emergency Department. He had been given 300mg aspirin orally by paramedics. His past medical history comprised paroxysmal AF which had been DC cardioverted. He was not taking any regular medication. He was a right handed driver with no other past medical history.

On examination, he had objective reduced power on the left side of his body (4/5) but no other abnormality. He was alert and orientated. His NIH Stroke Score was calculated to be 3. An urgent CT scan of the head was normal.

In which part of the brain has this stroke occurred?

A Clinically impossible to say
B Left internal capsule
C Pons
D Right MCA territory
E Thalamus

Question 5

A 75-year-old man developed sudden left sided numbness and weakness which was still present at the time of assessment in the Emergency Department. He had been given 300mg aspirin orally by paramedics. His past medical history comprised paroxysmal AF which had been DC cardioverted. He was not taking any regular medication. He was a right handed driver with no other past medical history.

On examination, he had objective reduced power on the left side of his body (4/5) but no other abnormality. He was alert and orientated. His NIH Stroke Score was calculated to be 3. He was admitted to the Acute Stroke Unit where an MRI scan of the brain revealed a right thalamic infarct.

What is the next best step in management?

A Ambulatory ECG to look for paroxysmal AF
B Anticoagulation
C Aspirin 300mg od orally
D Carotid Doppler study
E Clopidogrel 75 mg od orally

Question 6

A 75-year-old man developed sudden left sided numbness and weakness which was still present at the time of assessment in the Emergency Department. He had been given 300mg aspirin orally by paramedics. His past medical history comprised paroxysmal AF which had been DC cardioverted. He was not taking any regular medication. He was a right handed driver with no other past medical history.

On examination, he had objective reduced power on the left side of his body (4/5) but no other abnormality. He was admitted to the Acute Stroke Unit where an MRI scan of the brain revealed a right thalamic infarct. He was treated with aspirin 300mg od orally. He was found to be in paroxysmal atrial fibrillation. His CHA2DS2-Vasc Score was 4.

When can he be anticoagulated?

A After 2 days
B After 2 weeks
C After 4 weeks
D After 2 months
E Immediately

Question 7

A 64-year-old right handed man described three episodes of double vision, followed by vertigo and sudden onset numbness/weakness of the right side of his face and right arm. Each attack lasted around 10 minutes, and was associated with a dull headache. He presented to the Emergency Department after the third episode where he still had symptoms.

His past medical history comprised hypertension, migraine and atrial fibrillation. He had never smoked. He was taking ramipril 10mg od and simvastatin 40mg nocte.

On examination he had weakness (4/5) of his right arm and leg with inco-ordination of the right side and difficulty walking. His speech was normal. Examination of the eyes revealed a horizontal nystagmus, the fast component of which changed direction when he looked to the right and then to the left. His NIH Stroke Score was calculated to be 4. An urgent CT scan of the head was normal.

What is the next best step in management?

A Ateplase 0.9 mg/kg intravenously
B Aspirin 300mg orally
C Clexane 1.5mg/kg subcutaneously
D Clopidogrel 300mg orally
E Sumatriptan 2mg subcutaneously

Question 8

A 64-year-old right handed man described three episodes of double vision, followed by vertigo and sudden onset numbness/weakness of the right side of his face and right arm in the last week. Each attack lasted around 10 minutes, and was associated with a dull headache. He presented to the Emergency Department after the third episode where he still had symptoms. He was admitted to the Acute Stroke Unit and diagnosed with a posterior circulation stroke.

For how long may he not drive by Law?

A 1 week
B 1 month
C 3 months
D 6 months
E Until resolution of symptoms

**Answers**

1. C

DJE answer: Difficult question, I'd make the blood pressure a bit lower first and then the answer would be B – thrombolysis with Alteplase. In real life if SBP >185 we would give one or two boluses of labetolol and then thrombolyse.

2. D

DJE answer: The 70% stenosis is on the opposite side so best medical management is the answer (D)

3. B

DJE answer: The best management would be to thrombolyse him if he presented early. In this scenario, he woke up with symptoms so timescale is unknown and likely to be far more than 4 hours. His NIH Stroke Score is low. In later presentations, we rarely use heparin in acute stroke and he has already received an antiplatelet. Stroke unit admission needed next with full investigation.

4. A

5. C

Anticoagulation not indicated acutely in this case. The thalamus is mainly supplied by the posterior circulation so carotid Doppler not indicated.

6. B

DJE answer: B- contentious, depends which guideline you read and who you talk to. Current 'correct' answer is 2 weeks but if non-disabling and BP OK you can do it and we do do it much earlier!

7. A

DJE answer: A - I would thrombolyse him. He has been having posterior circulation TIAs and now presents with a persisting neurological deficit. A cardioembolism has to be suspected as he isn't anticoagulated and in AF. These patients go off big time if you don't address them very seriously. While Ateplase is going in I would do a CT angio and consider endovascular referral if there is a basilar occlusion.

8. C

DVLA rules, UK.