**SAQ for RTD 21/9/11**

**1. A 23-year old female is brought in. She is 10 days post-partum. Her husband heard her collapse and found her stiff with teeth clenched. She was sleepy afterwards but has nearly recovered to normal. She has normal observations, BM 5.2 and GCS E4V4M6.**

**Give 4 differential underlying diagnoses (2)**

Eclampsia

SAH

Dural sinus thrombosis

Alcohol intoxication or withdrawal

Paradoxical embolus

Spontaneous intracerebral haemorrhage

**Whilst in the department the patient has a witnessed tonic clonic seizure. What are your immediate actions? (3)**

Ensure airway patency and provide 15L oxygen via reservoir bag

Gain IV access

If lasting longer than 5 minutes give lorazepam 4mg IV

Magnesium sulphate 4grams IV bolus

Transfer to high dependency area

**What is the definition of status epilepticus? (1)**

More than 30 minutes of continuous seizure activity or two or more sequential seizures without full recovery of consciousness between seizures

**Name 4 therapeutic interventions with doses that could be used in the management of status epilepticus (4)**

Phenytoin 18mg/kg

Phenobarbitone 18mg/kg

Paraldehyde 10-20ml mixed with olive oil

Thiopentone 5mg/kg

**2. A 63-year old female is brought in by ambulance having fallen down the stairs. She is immobilised and on a spinal board. She has facial injuries and a large haematoma over her right parietal bone. Her airway is noisy, her oxygen saturations are 86% on 15L non-rebreathe bag, HR 100, BP 125/72, GCS E1V2M4, pupils are 4mm equal and reacting. There do not appear to be any other injuries.**

**What are your initial management steps? (6)**

Ensure airway patency with oropharyngeal airway

Ventilate if necessary using bag-valve mask

Attain IV or IO access

Pre-oxygenate

Rapid-sequence induction with MILS, cricoid pressure – ketamine, etomidate, propofol + suxamethonium +/- opiate

Extension of anaesthesia with propofol/atracurium

Arrange urgent CT scan head/neck

Arrange urgent neurosurgical review

Refer to (neurosurgical) ITU

**Fifteen minutes later the nurse tells you that the heart rate is now 65, blood pressure has risen to 165/115. The right pupil is 8mm and is not reacting to light. Give four interventions you would consider (4)**

Hyperventilate to EtCO2 3.5kPa

Consider mannitol 0.25-1g/kg = 0.125-0.5ml/kg of 20% mannitol

Consider hypertonic saline 3ml/kg 3% NaCl

Head up

Loosen collar and ties

Reduce intrathorcic pressure – reduce PEEP

**3. You are on duty. A paramedic team pre-alerts the department with a 78-year old female with acute left sided weakness, onset 90 minutes ago.**

**List 6 contra-indications to thrombolysis in acute ischaemic stroke (3)**

Unknown time of onset

NIHSS >25

Stroke or serious head injury within 3 months

Major trauma or major surgery within 2 weeks

GI or urinary tract haemorrhage within 3 weeks

Anticoagulation with INR >1.7

Platelets <100x109/l

Haemorrhage on CT

Previous stroke and diabetes

Blood glucose <2.2mmol/l or >28mmol/l

BP >185/110

**Please give the name, route and dose of thrombolytic used for acute stroke (3)**

Alteplase0.9mg/kg, maximum dose 90mg

Intravenous

10% of the dose over 1 minute as a bolus with the remaining dose over an hour

**The patient’s symptoms have resolved on arrival to hospital. Describe a scale used to assess the severity of transient ischaemic attacks and how do you interpret the results? (4)**

ABCD2:

Age ≥60 1 point

Blood pressure >140/90 at initial assessment

Clinical features: speech disturbance 1 point, unilateral weakness 2 points

Duration: <10 mins 0 points, 10-59 minutes 1 point, >60 minutes 2 points

Diabetes: 1 point

Score 0-3 low risk (1% risk at 48 hours)

Score 4-5 moderate risk (4% risk at 48 hours)

Score 6-7 high risk (8% risk at 48 hours)

Patients with scores ≥ 4 are at sufficient risk of CVA within 48 hours to warrant admission and inpatient work-up including carotid Doppler scanning and echocardiography

**4. An 83 year-old female patient is brought in by ambulance. She has had severe back pain radiating into her groin for an hour. She has a history of angina and has been progressively breathless over the last year.**

**Give three differentials for the back pain (3)**

Ruptured abdominal aortic aneurysm

Dissection of the abdominal aorta

Acute intervertebral disc prolapsed

Acute vertebral collapse with nerve root compression

**On examination, she has tenderness at L3-4, saddle anaesthesia and a palpable enlarged bladder. What are your next steps in her management? Please give 4 interventions or investigations(2)**

Analgesia

Urgent neurosurgical referral

Urgent MRI spine

Urinary catheterisation

**How quickly should imaging be undertaken? (1)**

Ideally as soon as possible. Guidelines are within 24 hours – out of hours can wait until morning.

**Give four other investigations that are indicated. Please explain your answers (4)**

Chest X-ray - ?malignancy given history of SOB and cauda equine syndrome

Calcium – exclude other complications of malignancy

FBC - ?anaemia related to multiple myeloma

Urinary Bence-Jones proteins - ?MM

Protein electrophoresis - ?MM

Urea and creatinine – May have renal disease secondary to malignancy (amyloidosis with MM)

LFTs – possible metastatic disease

ECG – history of angina, increasing breathlessness, may have LVH on ECG.