

## Seizures

### Assessment & Management

- How far away is back up – either an ACP crew or CCP?
- When we arrive on scene, is there any danger?
- Checking for a response, is the patient responsive?
- Check the airway if possible to see if any occlusions – foreign body, vomit or saliva. Is trismus present? Clear and secure airway if possible
- Is the patient breathing? At what rate? Do they need to be ventilated?
- Secondary officer to get VSS

**MANAGEMENT → IF PT ACTIVELY SEIZING, ADMINISTER IM MIDAZOLAM ASAP AFTER CHECKING FOR ALLERGIES (KSAR?)**

**MANAGEMENT → RE-POSITION Laterally**

History:

- What's going on today .....
- What were you doing when the seizure started?
- Do you have any allergies? What happens when you have that?
- Do you take any medications?
- What medical history do you have?
- When was the last time you had something to eat or drink?
- Do you smoke or drink alcohol?
- Did you hit your head at all?

VSS:

- What is the pulse?
- Blood pressure
- Skin
- BSL
- Cap refill
- Respiratory rate, rhythm and effort
- Temperature
- SpO2
- End tidal CO2
- Lactate
- ECG

**MANAGEMENT → SIT REP**

**MANAGEMENT → OXYGEN 15L NRBM**

**MANAGEMENT → TREAT REVERSIBLE CAUSES (hypoxia, hypoglycaemia)**

Head to Toe:

- Completing my head to toe assessment, I inspect the head is there any deformities, blood or anything I should be concerned about? Did the patient bite their tongue?
- Moving to the neck and shoulders, does everything appear to be intact? Are there any deformities?
- Assessing the limbs, are there any deformities present?
- When I feel the abdomen is the patient experiencing any pain or discomfort? Is there anything of concern present?

Inspecting the patient's back, is there any deformities or injuries?

## Stroke (CVA)

GCS:

Eyes – 4

- 4 → spontaneous
- 3 → reacts to speech (Open your eyes for me)
- 2 → reacts to pain (sternal rub)
- 1 → no response

Verbal – 5

- 5 → orientated (Can you tell me what day it is? What is the date today? Who is the current prime minister?)
- 4 → confused
- 3 → inappropriate words
- 2 → incomprehensible
- 1 → no response

Motor – 6

- 6 → obeys
- 5 → localized to pain
- 4 → withdraws from pain
- 3 → flexion
- 2 → extension
- 1 → no response

Pain Assessment:

- Do you have any pain?
- So ..... what were you doing when (symptoms) started?
- Does anything make the pain worse or better?
- How would you describe the pain?
- Does the pain go anywhere else?
- On a scale of 1 to 10, how would you rate the pain? 10 being the worse pain of your life, 0 being nothing.
- Does the pain come and go or is it constant?

**MANAGEMENT → SITREP**

**MANAGEMENT → ANALGESIA**

**MANAGEMENT → POSTURE PT 45 DEGREES HEAD UP**

**MANAGEMENT → TRANSPORT**

### Pathophysiology

- I believe this patient is having a stroke because a stroke is oxygen deprivation to the brain tissue, resulting in altered metabolic processes leading to cell death. There are two main types of strokes however they can't be diagnosed pre-hospitally:
- Ischaemic → loss of adequate blood supply to the part of the brain from vessel occlusion. Resulting in inadequate oxygenation, energy production and metabolic waste removal with potential for reperfusion injury when vessel is reperfused
- Haemorrhagic → can result in neurological defects due to direct brain injury following rupture of a cerebral vessel in the brain, secondary

occlusion of nearby vessels from compression due to the expanding haematoma and reduced cerebral perfusion caused by increasing intracranial pressure. Haemorrhagic stroke patients can present similar to a traumatic brain injury and can also result in cerebral herniation.

## Acute Cardiogenic Pulmonary Oedema

### Management:

- Standard cares
- Elevate legs

#### Oxygen:

- The primary goal is reduction in preload and afterload with nitrates and maintenance of oxygenation
- Treat dyspnoea

#### Aspirin:

- Patients with cardiogenic APO usually have a cardiac history
- Aspirin inhibits platelet aggregation by irreversibly inhibiting cyclo-oxygenase, reducing synthesis of thromboxane for the life of the platelet. This action forms the basis of preventing platelets from aggregating to exposed collagen fibres.
- Patient indicated as they have acute cardiogenic pulmonary oedema
- Contraindications include KSAR, chest pain associated with psychostimulant overdose, bleeding or clotting disorders, current GI bleed or patients under 18.
- Precaution used in patients with possible aortic aneurysm, pregnancy, history of GI bleeds or ulcers and concurrent anticoagulant therapy such as warfarin.
- Side effects include epigastric discomfort, nausea or vomiting, gastritis, GI bleed or NSAID induced bronchospasm

#### GTN:

- Administered GTN because GTN is a potent vasodilator that decreases preload by increasing venous capacity, pooling venous blood in peripheral veins, reducing ventricular filling pressure and decreases afterload. This results in a decrease in myocardial oxygen demand and can cause vasodilation in the coronary arteries, redistributing blood flow and an increase in blood flow to ischaemic areas.
- The patient was indicated for GTN as their blood pressure was above 160 systolic and was needed for the hypotensive effects it exhibits.
- Contraindications include KSAR or hypersensitivity, Heart rate under 50 or above 150, a systolic blood pressure under 100, a risk of CVA or head trauma or any Viagra in the last 24 hours as Viagra acts on the same pathway that causes vasodilation, inducing the effects of GTN
- Side effects of GTN are dizziness, hypotension, syncope, reflex tachycardia and vascular headaches
- The precautions are suspected inferior MI, cerebral vascular disease, risk of hypotension, intoxication and Viagra in the past 4 days

#### CPAP

- CPAP is a non-invasive ventilation used in spontaneously breathing patients. CPAP reduced work of breathing and improves pulmonary gas exchange. Administered to patients with cardiogenic APO as the increased intrathoracic pressure leads to reduced venous return, reduced afterload and improved cardiac function.
- Contraindicated in patients under 16, GCS under 8, inadequate ventilatory drive, hypotensive, pneumothorax, facial trauma and epistaxis.
- Complications include aspiration, gastric distention, hypotension, corneal drying and barotrauma