# Subarachnoid Haemorrhage



## Risk Factors for aneurysm rupture:

- Smoking and alcohol
- Age 20 65 most common
- Hypertension (BP > 160/100 high risk)
- Coagulopathy does not cause rupture, but is associated with a poor outcome

#### Causes / associations:

- Berry aneurysm (80%)
- AVM
- · Polycystic kidney disease
- SLÉ
- Moyamoya disease
- Syndromes: Marfan, Ehlers-Danlos, Osler-Weber-Rendu, Klippel-Trenaunay-Weber
- Metastatic tumours eg atrial myxoma, choriocarcinoma (very rare)
- Vasculitis (very rare)
- Fungal / bacterial infections (very rare)

#### **Prodromal events**

Signs and symptoms precede aneurysm rupture in up to 50% of cases. These may be subtle. They may be caused by sentinel leaks, mass effect of aneurysm (focal neurology) or emboli (TIA)

- Headache (48%) sudden, severe. May be associated with nausea, vomiting, photophobia, malaise, neck pain
- Dizziness (10%)
- Orbital pain (7%) usually mass effect
- Sensory or motor disturbance (6%) including 3<sup>rd</sup> nerve palsy (dilated pupil & 'down and out' gaze)
- Diplopia (4%)
- Visual loss (4%)
- Seizures (4%)
- Ptosis (3%)
- Bruits (3%)
- Dysphasia (2%)

### Symptoms & signs of SAH

**Headache:** severe 'worst ever', sudden, maximal intensity within 5 minutes. Up to 70% occur with exertion, including straining and sexual intercourse, but may be at rest

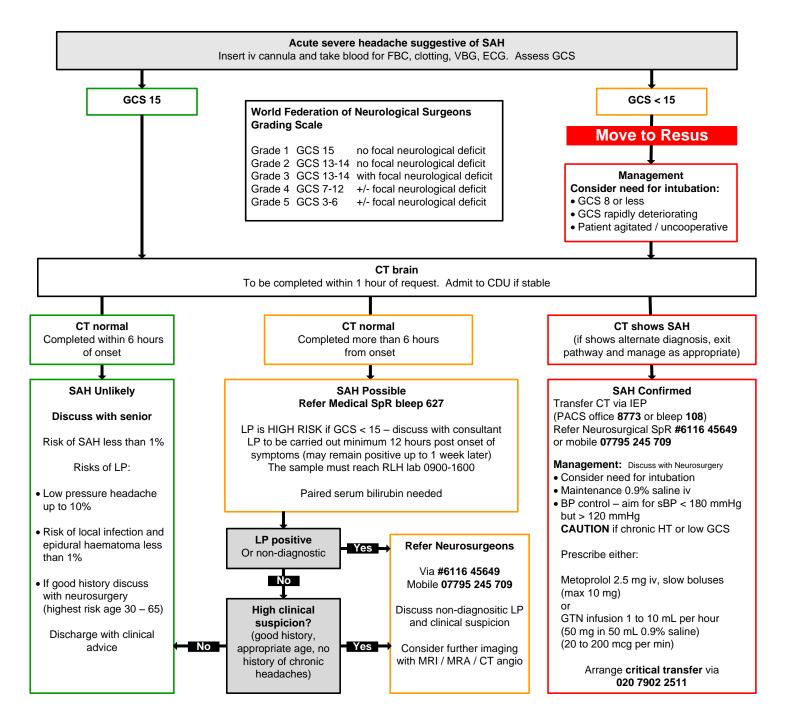
**Meningism:** occurs in 80% but may take several hours to manifest

Sudden LOC: 45%, usually transient

**Seizure:** 10 – 25%

Subhyaloid retinal haemorrhage: 25%

Reduced GCS / Focal neurology: 25%



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Reference Documents